WEST VIRGINIA
SECRETARY OF STATE
JOE MANCHIN, III
ADMINISTRATIVE LAW DIVISION

Form #1

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2004 JUN 30 P 4:51

OFFICE OF WEST VIRGINIA SECRETARY OF STATE

NOTICE OF A PUBLIC HEARING ON A PROPOSED RULE

AGENCY: WV Dept. of Environmental Protection - Division of Air Quality TITLE NUMBER: 45

RULE TYPE: Legislative CITE AUTHORITY: W.V. Code §22-5-4

AMENDMENT TO AN EXISTING RULE: YES X NO ___

IF YES, SERIES NUMBER OF RULE BEING AMENDED: 34

TITLE OF RULE BEING AMENDED: "Emission Standards for Hazardous Air Pollutants for Source Categories Pursuant to 40 CFR Part 63"

IF NO, SERIES NUMBER OF RULE BEING PROPOSED: ___

TITLE OF RULE BEING PROPOSED: ___

DATE OF PUBLIC HEARING: August 2, 2004 TIME: 6:00 p.m.

LOCATION OF PUBLIC HEARING: Division of Air Quality
7012 MacCorkle Avenue, S.E.
Charleston, WV 25304-2943

COMMENTS LIMITED TO: ORAL ___, WRITTEN ___, BOTH X

COMMENTS MAY ALSO BE MAILED TO THE FOLLOWING ADDRESS:

John A. Benedict, Director
Division of Air Quality
7012 MacCorkle Avenue, S.E.
Charleston, WV 25304-2943

The Department requests that persons wishing to make comments at the hearing make an effort to submit written comments in order to facilitate the review of these comments.

The issues to be heard shall be limited to the proposed rule.

ATTACH A **BRIEF** SUMMARY OF YOUR PROPOSAL

Stephanie R. Timmermeyer

Stephanie R. Timmermeyer, Secretary

$3.20 W/out Fed. Reg's
W/Fed. Reg's

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BRIEFING DOCUMENT

Rule Title: 45CSR34 - "Emission Standards for Hazardous Air Pollutants For Source Categories Pursuant to 40 CFR Part 63"

A. AUTHORITY: W.Va. Code §22-5-4

B. SUMMARY OF RULE:

This rule establishes and adopts national emission standards for hazardous air pollutants (NESHAP) and other regulatory requirements promulgated by the United States Environmental Protection Agency (U.S. EPA) pursuant to section 112 of the federal Clean Air Act, as amended (CAA). This rule codifies general procedures and criteria to implement emission standards for stationary sources that emit (or have the potential to emit) one or more of the hazardous air pollutants (HAP) in or pursuant to section 112(b) of the CAA. The rule adopts by reference the NESHAP standards of 40 CFR Parts 63 and 65 (Consolidated Federal Air Rule), to the extent referenced in 40 CFR Part 63, promulgated as of June 1, 2004. The rule also adopts associated reference methods, performance specifications and other test methods which are appended to these standards and contained in 40 CFR Parts 63 and 65. Any person who constructs, reconstructs, modifies or operates any source subject to the provisions of 40 CFR Part 63 must comply with the applicable NESHAPS and this rule.

45CSR34, in conjunction with 45CSR15, establishes general provisions for emission standards for hazardous air pollutants (NESHAP) and other regulatory requirements promulgated by USEPA pursuant to section 112 of the federal Clean Air Act, as amended. 45CSR34 incorporates hazardous air pollutant standards codified by USEPA under 40 CFR Part 63 whereas 45CSR15, incorporates hazardous air pollutant standards promulgated by USEPA under 40 CFR Part 61.

This revised rule incorporates by reference the following new or revised NESHAP standards promulgated as of July 1, 2004: National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-alone Semichemical Pulp Mills, Site Remediation, Primary Magnesium Refining, Taconite Iron Ore Processing, Miscellaneous Organic Chemical Manufacturing, Surface Coating of Metal Cans, Miscellaneous Coating Manufacturing, Bulk Gasoline Terminals and National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations), Chlorine and Hydrochloric Acid Emissions From Chlorine Production (deleted subcategory), Mercury Emissions from Mercury Cell Chlor-Alkali Plants, Surface Coating of Miscellaneous Metal Parts and Products, Lime Manufacturing Plants, Organic Liquids Distribution (Non-Gasoline), Stationary Combustion Turbines,

Surface Coating of Plastic Parts and Products, Surface Coating of Automobiles and Light-Duty Trucks, Equipment Leak Provisions, and Stationary Reciprocating Internal Combustion Engines.

C. STATEMENT OF CIRCUMSTANCES WHICH REQUIRE RULE:

As provided in 40 CFR §63.4(a)(3), and because West Virginia has an approved Title V permit program, the Secretary therefore has the authority to implement and enforce national emission standards for hazardous air pollutants for stationary sources required to obtain a Title V permit under 40 CFR Part 63 through the approved permit program under Title V of the CAA, as amended. Promulgation of this rule will enable the Department of Environmental Protection, Division of Air Quality (DAQ) to continue to be the primary enforcement authority for NESHAP promulgated under 40 CFR Part 63 by U.S. EPA as of June 1, 2004. Promulgation of this rule by the Legislature is necessary for the State to fulfill its responsibilities under the CAA, as amended. Revisions to the rule include general annual updates and incorporation by reference rule language clarification.

D. FEDERAL COUNTERPART REGULATIONS - INCORPORATION BY REFERENCE/DETERMINATION OF STRINGENCY:

A federal counterpart to this proposed rule exists. In accordance with the Secretary's recommendation, and with limited exception, the Division of Air Quality proposes that the rule incorporate by reference the federal counterparts. Because the proposed rule incorporates by reference the federal counterpart, no determination of stringency is required.

E. CONSTITUTIONAL TAKINGS DETERMINATION:

In accordance with W.Va. Code §§22-1A-1 and 3(c), the Secretary has determined that this rule will not result in taking of private property within the meaning of the Constitutions of West Virginia and the United States of America.

F. CONSULTATION WITH THE ENVIRONMENTAL PROTECTION ADVISORY COUNCIL:

At its June 24, 2004 meeting, the Environmental Protection Advisory Council reviewed and discussed this proposed rule. The Council's comments are contained in the attached minutes.

West Virginia Department of Environmental Protection

ADVISORY COUNCIL MEETING MINUTES

Thursday, June 24, 2004
1356 Hansford Street, Charleston, WV
1st Floor Conference Room – OER Conference Room

ATTENDEES:

Advisory Council Members:
Larry Harris (via conference call)
Jackie Hallinan
Rick Roberts
Debra Bias for Lisa Dooley
Bill Raney

DEP:
Joe Dawley, General Counsel
Ken Ellison, Director - Division of Land Restoration
Allyn Turner, Director – Division of Water and Waste Management
Bill Brannon, Division of Water and Waste Management
Mike Dorsey – Division of Water and Waste Management
Mike Zeto – Office of Environmental Enforcement
Joe Parker, Director, DEP Division of Mining and Reclamation
Charlie Sturey – DEP Division of Mining and Reclamation
Cindy Maynard – DEP Office of Environmental Advocate
Laura Crowder – DEP Division of Air Quality
Jim Mason – DEP Division of Air Quality
Connie Graytop Lewis – WV Environmental Council
Liz Garland – WV Rivers Coalition
Jason Bostic – WV Coal Association
Tim Beli – Nelson Brothers
Bruce Gilbert – Nelson Brothers

Joseph M. Dawley, WVDEP – General Counsel, called the meeting to order at 10:00 a.m.
Updates on rules were presented as follows:

Division of Air Quality - Jim Mason and Laura Crowder

- 45CSR14 - PSD rule under Part C of the CAA, 45CSR14 has not been revised since 1995. This rule establishes permit requirements for major sources in attainment areas. Revisions to the rule are required to incorporate revisions of federal counterpart language.
- 45CSR15 - NESHAP incorporation by reference ("IBR) rule under Part 61, is typically updated each year. Revisions to the rule accommodate annual IBR updates.
- 45CSR16 - NSPS IBR rule under Part 60, is typically updated each year. Revisions to the rule accommodate annual IBR updates.
- 45CSR19 - NSR rule under Part D of the CAA, 45CSR19 has not been revised since 1993. This rule establishes permit requirements for major sources in non-attainment areas or that cause or

contribute to non-attainment areas. Revisions to the rule are required to incorporate revisions of federal counterpart language.

- 45CSR25 - Hazardous waste IBR rule is typically updated each year. Revisions to the proposed rule include general annual IBR updates: stylistic, citing and technical corrections, and revisions required to maintain consistency with the DW&WM's rule 33CSR20 and federal counterpart regulation. The consistency of 45CSR25, 33CSR20 and federal counterpart regulation is important to maintain EPA delegation of authority to implement and enforce the West Virginia RCRA Hazardous Waste Management Program.
- 45CSR34 - NESHAP IBR rule under Part 63, is typically updated each year. Revisions to the rule accommodate annual IBR updates.

Bill Raney inquired about the table in which mercury is crossed out. This was deleted from EPA's rule so it was deleted from DEP's rule.
Larry Harris also raised a question regarding the definition of visibility.

Office of Waste Management – presented by Mike Dorsey, Deputy Chief, DEP Division of Water and Waste Management

- 33 CSR 20 - Hazardous Waste Management Rule - The revisions in the proposed rule will adopt by reference federal regulations in effect as of July 1, 2004, primarily clarifications and technical corrections. These revisions allow the State to remain consistent with the federal program and to maintain State authorization of the federal program.
- 33 CSR 31 (Underground Storage Tank Fee Assessments) - This rule will increase the annual registration fee for the Underground Storage Tank Program from $25 per tank to $65 per tank. An emergency rule is already in place to implement the increase in fees.
-

The following were presented by Allyn Turner, Director, DEP Division of Water and Waste Management

- 33 CSR 2 (Sewage Sludge Management Rule) - The revision modify the restriction and location standards to allow disposal at the discretion of the secretary where the soil on the land has a surface permeability of less than 0.6 inches per hour and the applicant can demonstrate that the surface water and ground water will be adequately protected.
- 33 CSR 8 (Beneficial Sludge Management Rule) - The revision modify the restriction and location standards to allow disposal at the discretion of the secretary where the soil on the land has a surface permeability of less than 0.6 inches per hour and the applicant can demonstrate that the surface water and ground water will be adequately protected.

Office of Explosives and Blasting – presented by Joe Parker, Acting Director, DEP Division of Mining and Reclamation

- 199 CSR 1 (Surface Mining Blasting Rule) - The revisions include incorporation of several provisions from the Surface Mining Rule (38 SCR 2). These include adding the definitions of "community or institutional building," "public building," and "structure" and including provisions for the erection and maintenance of blasting signs. The proposed rule also includes revisions to the Certified Blaster enforcement provisions to address inconsistencies identified by the Federal Office of Surface Mining. Lastly, the proposed rule includes a provision that allows the Office of Explosives and Blasting to conduct an evaluation of a certified blasters performance.

Bill Raney inquired about page 22/Performance Evaluation – raising point about suspending license procedures. Mr. Raney indicated he would request a meeting to reconcile differences.

Office of Water Resources – presented by Allyn Turner, Director, DEP Division of Water and Waste Management

- 47CSR26 (NPDES Permit Fee Rule) - Proposed revision includes a new permit fee provision for concentrated animal feedlot operations ("CAFO") to implement a new federal permit program for CAFOs.
- 47 CSR 10 (NPDES Permit Rule) - Proposed revisions include provisions to implement the federal Phase II Storm Water program and the CAFO permitting program.

Rick Roberts inquired about the definition of storm water and permitted and non-permitted enforcement strategy. Director Turner indicated that this matter is still in discussion and there is no answer at this point.

Division of Mining and Reclamation

- 38CSR2 (Surface Mining and Reclamation Rule) The proposed revisions (1) change various sections of the rule to be consistent with its federal counterpart, (2) correct sections of the rule not approved by the Federal Office of Surface Mining, and (3) provide clarifications and remove contradictory language. These provisions pertain to the following subject areas: definition of previously mined areas, incidental boundary revisions, design criteria for impoundments, commercial forestry post-mining land use, homestead post-mining land use, revegetation standards, and the water supply replacement waiver.

Environmental Excellence Rule

- Optimistic about proposing at next session.
- Dave Bassage is working on draft, but has nothing to share at this point.

Rule Schedule

- July 28, 2004 – last day for filing proposed rules for public comment.
- August 27, 2004 – Must file rules with Secretary of State and Legislative Rule-Making Review Committee

DEP Division Updates

Division of Water and Waste Management

- Rick Roberts posed question regarding phosphorous and nitrogen in the Potomac River
- Allyn Turner explained about the Chesapeake Bay Program and the Gulf of Mexico Hypoxia actions nutrient criteria working group.

Air Quality

- NT, CT, NJ and PA are suing Allegheny Energy, Inc. – which affects 5 WV plants and three PA plants.
- States assert Allegheny modified power plants in violation of Prevention Significant Deterioration provision of ACT and such modifications caused excess NOx and SO2 emissions damage.
- States allege violations in construction/operation of major modifications to power plans without obtaining pre-construction permits.
- EPA not pursuing enforcement at this time.

- West Virginia previously declined to join in a suit against AEP alleging same type of violations.

Abandoned Mine Lands

Science Advisory Committee Statement

- Agency should have benefit of science before promulgating rules.
- Jackie Hallinan expressed concern about state agencies with political influence and what kind of science they intend to use in rulemaking.
- Ken Ellison wants science to be transparent with supporting and substantiating credit to help make better-informed decisions and move forward so all can see what is happening.

Proposed AML Enhancement Rule distributed.

- Will bring DEP in-line with Office of Surface Mining initiative.

DEP Web Page

- Link with web page not up yet.

Upcoming Advisory Council meetings tentative dates:

- September 16, 2004
- December16, 2004

Joe Dawley adjourned meeting at 12:15 p.m.

APPENDIX B

FISCAL NOTE FOR PROPOSED RULES

Rule Title: 45CSR34 - "Emission Standards for Hazardous Air Pollutants For Source Categories Pursuant to 40 CFR Part 63"

Type of Rule: X Legislative _____ Interpretive _____ Procedural

Agency: Division of Air Quality

Address: 7012 MacCorkle Avenue, SE
Charleston, WV 25304-2943

1. Effect of Proposed rule:

	ANNUAL		FISCAL YEAR		
	INCREASE	DECREASE	CURRENT	NEXT	THEREAFTER
ESTIMATED TOTAL COST	$ 0	$ 0	$ 0	$ 0	$ 0
PERSONAL SERVICES	0	0	0	0	0
CURRENT EXPENSE	0	0	0	0	0
REPAIRS & ALTERATIONS	0	0	0	0	0
EQUIPMENT	0	0	0	0	0
OTHER	0	0	0	0	0

2. Explanation of Above Estimates:
Costs anticipated to be incurred in the implementation of federal rules promulgated under 40 CFR Part 63 as of July 1, 2004 will be covered under prior budget estimates for implementing Title V of the Clean Air Act, as amended, for which full program approval was issued by the U.S. Environmental Protection Agency on January 8, 2002.

3. Objectives of These Rules:
This rule establishes general provisions for emission standards for hazardous air pollutants and other regulatory requirements pursuant to section 112 of the Clean Air Act, as amended. Promulgation of this rule by the Legislature is necessary for the State to fulfill its responsibilities under the Clean Air Act.

4. Explanation of Overall Economic Impact of Proposed Rule:

A. Economic Impact on State Government:

See section 2.

B. Economic Impact on Political Subdivisions; Specific Industries; Specific Groups of Citizens:

No impact above that resulting from the currently applicable federal emission standards.

C. Economic Impact on Citizens/Public at Large.

No impact above that resulting from the currently applicable federal emission standards.

Date: June 29, 2004

Signature of Agency Head or Authorized Representative:

John A. Benedict, Director

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2004 JUN 30 P 4:51
OFFICE OF WEST VIRGINIA
SECRETARY OF STATE

TITLE 45
LEGISLATIVE RULE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
~~DIVISION~~ OFFICE OF AIR QUALITY

SERIES 34
EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES PURSUANT TO 40 CFR PART 63

§45-34-1. General.

1.1. Scope. -- This rule establishes and adopts national emission standards for hazardous air pollutants (NESHAPS) and other regulatory requirements promulgated by the United States Environmental Protection Agency pursuant to 40 CFR Part 63 and section 112 of the federal Clean Air Act, as amended (CAA). This rule codifies general procedures and criteria to implement emission standards for stationary sources that emit (or have the potential to emit) one or more of the substances listed as hazardous air pollutants in section 112(b) of the CAA. The Secretary hereby adopts these standards by reference. The Secretary also adopts associated reference methods, performance specifications and other test methods which are appended to these standards.

1.2. Authority. -- W.Va. Code §22-5-4.

1.3. Filing Date. -- ~~April 30, 2004~~.

1.4. Effective Date. -- ~~June 1, 2004~~.

1.5. Incorporation by Reference. -- Federal Counterpart Regulation. The Secretary has determined that a federal counterpart regulation exists, and in accordance with the Secretary's recommendation, with limited exception, this rule incorporates by reference 40 CFR Parts 63 and 65, to the extent referenced in 40 CFR Part 63, effective ~~July 1, 2002~~ July 1, 2004~~, as amended by the Federal Register through June 1, 2003~~.

1.6. Former Rules. -- This legislative rule amends 45CSR34 "Emission Standards for Hazardous Air Pollutants for Source Categories Pursuant to 40 CFR Part 63" which was filed ~~April 21, 2003~~ April 30, 2004, and which became effective ~~June 1, 2003~~ June 1, 2004.

§45-34-2. Definitions.

2.1. "Administrator" means the Administrator of the United States Environmental Protection Agency or his or her authorized representative.

2.2. "Clean Air Act" ("CAA") means 42 U.S.C. §§7401 et seq.

2.3. "Hazardous air pollutant" means any air pollutant listed pursuant to section 112(b) of the CAA.

2.4. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§22-1-6 or 22-1-8.

2.5 Other words and phrases used in this rule, unless otherwise indicated, shall have the meaning ascribed to them in 40 CFR Part 63. Words and phrases not defined therein shall have the meaning given to them in federal Clean Air Act.

§45-34-3. Requirements.

3.1. No person may construct, reconstruct, modify, or operate, or cause to be constructed, reconstructed, modified, or operated any source subject to the provisions of 40 CFR Part 63 which

results or will result in a violation of this rule.

3.2. After the effective date of the state permit program under Title V of the CAA, no person may construct or reconstruct any major source of hazardous air pollutants, unless the Secretary determines that the maximum achievable control technology emission limitation under this rule for new sources will be met.

3.3. After the effective date of the state permit program under Title V of the CAA, the Secretary shall determine and apply case-by-case maximum achievable control technology standards to existing sources categorized by the Administrator pursuant to section 112(c)(1) of the CAA for which the Administrator has not promulgated emission standards in accordance with sections 112(d) and 112(e) of the CAA.

3.4. Prior to constructing, reconstructing or modifying any facility subject to this rule, the owner or operator shall obtain a permit in accordance with the applicable requirements of 45CSR13, 45CSR14, 45CSR30 and this rule.

§45-34-4. Adoption of Standards.

4.1. The Secretary hereby adopts and incorporates by reference the provisions of 40 CFR Parts 63 and 65, to the extent referenced in 40 CFR Part 63, including any reference methods, performance specifications and other test methods which are appended to these standards and contained in 40 CFR Parts 63 and 65, effective ~~July 1, 2002~~ July 1, 2004~~, as amended by the Federal Register through June 1, 2003~~, for the purposes of implementing a program for emission standards for hazardous air pollutants for source categories, except as follows:

4.1.a. 40 CFR §63.15 is amended to provide that information shall be available to the public in accordance with W.Va. Code §§22-5-1 et seq., 29B-1-1 et seq., and 45CSR31; and

4.1.b. Subpart E of 40 CFR Part 63 and any provision related to section 112(r) of the CAA, notwithstanding any requirements of 45CSR30 shall be excluded.

§45-34-5. Secretary.

5.1. Any and all references in 40 CFR Parts 63 and 65 to the "Administrator" are amended to be the "Secretary" except as follows:

5.1.a. where the federal regulations specifically provide that the Administrator shall retain authority and not transfer such authority to the State;

5.1.b. where provisions occur which refer to:

5.1.b.1. alternate means of emission limitations;

5.1.b.2. alternate control technologies;

5.1.b.3. innovative technology waivers;

5.1.b.4. alternate test methods;

5.1.b.5. alternate monitoring methods;

5.1.b.6. waivers/adjustments to record-keeping and reporting;

5.1.b.7. emissions averaging; or

5.1.b.8. applicability determinations; or

5.1.c. where the context of the regulation clearly requires otherwise.

§45-34-6. Permits.

6.1. Nothing contained in this rule shall be construed or inferred to mean that permit requirements in accordance with applicable rules shall in any way be limited or inapplicable.

§45-34-7. Inconsistency Between Rules.

7.1. In the event of any inconsistency between this rule and any other rule of the West Virginia Department of Environmental Protection, such inconsistency shall be resolved by the determination of the Secretary and such determination shall be based upon the application of the more stringent provision, term, condition, method or rule.

Register on February 10, 2003 (68 FR 6679), we proposed to amend the VA adjudication regulations to add cirrhosis of the liver to the list of diseases for which entitlement to service connection is presumed for former POWs under 38 CFR 3.309(c).

We asked interested persons to submit comments on or before April 11, 2003. We received no comments. Based on the rationale set forth in the proposed rule, we are adopting the proposed rule as a final rule without change.

Administrative Procedures Act

Because this rule solely provides for a new benefit it is not subject to the effective date provisions of 5 U.S.C. 553.

Paperwork Reduction Act of 1995

This rule contains no provisions constituting collections of information under the Paperwork Reduction Act (44 U.S.C. 3501–3521).

Regulatory Flexibility Act

The Secretary hereby certifies that this regulatory amendment will not have a significant economic impact on a substantial number of small entities as they are defined in the Regulatory Flexibility Act, 5 U.S.C. 601–612. The reason for this certification is that this amendment will not directly affect any small entities. Only VA beneficiaries could be directly affected. Therefore, pursuant to 5 U.S.C. 605(b), this amendment is exempt from the initial and final flexibility analysis requirements of sections 603 and 604.

Unfunded Mandates

The Unfunded Mandates Reform Act requires, at 2 U.S.C. 1532, that agencies prepare an assessment of anticipated costs and benefits before developing any rule that may result in an expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of $100 million or more in any given year. This rule will have no such effect on State, local, or tribal governments, or the private sector.

Catalog of Federal Domestic Assistance

The Catalog of Federal Domestic Assistance number is 64.109.

List of Subjects in 38 CFR Part 3

Administrative practice and procedure, Claims, Disability benefits, Health care, Pensions, Veterans, Vietnam.

Approved: July 2, 2003.

Anthony J. Principi,

Secretary of Veterans Affairs.

■ For the reasons set forth in the preamble, VA amends 38 CFR part 3 as follows:

PART 3–ADJUDICATION

Subpart A—Pension, Compensation, and Dependency and Indemnity Compensation

■ 1. The authority citation for part 3, subpart A continues to read as follows:

Authority: 38 U.S.C. 501(a), unless otherwise noted.

§ 3.309 [Amended]

■ 2. Section 3.309(c) is amended by adding "Cirrhosis of the liver." following "Peripheral neuropathy except where directly related to infectious causes." and before the explanatory note.

[FR Doc. 03–18233 Filed 7–17–03; 8:45 am]

BILLING CODE 8320–01–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[OAR–2002–0045, FRL–7528–3]

RIN 2060–AK53

National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule; amendments.

SUMMARY: On February 18, 2003, the EPA promulgated amendments to the national emission standards for hazardous air pollutants (NESHAP) for chemical recovery combustion sources at kraft, soda, sulfite, and stand-alone semichemical pulp mills, as a direct final rule with a parallel proposal. We indicated in that action that we would withdraw any part of the rule on which we received adverse comment. We received timely adverse comment on certain provisions of the direct final rule, but our withdrawal notice was not printed in the **Federal Register** before the May 19, 2003 effective date of the provisions. This action amends the subpart MM rule by deleting the provisions which were the subject of adverse comment. We are also amending portions of the subpart MM rule added by the February 18, 2003 direct final rule to correct a typographical error and a cross-referencing error.

DATES: These amendments are effective July 18, 2003.

ADDRESSES: Docket number OAR–2002–0045, containing supporting information used in the development of this notice, is available for public viewing at the EPA Docket Center (Air Docket), EPA West, Room B–108, 1301 Constitution Avenue, NW, Washington, DC 20460. The Docket Center is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742.

FOR FURTHER INFORMATION CONTACT: Mr. Jeff Telander, Minerals and Inorganic Chemicals Group, Emission Standards Division (C504–05), Office of Air Quality Planning and Standards, U.S. EPA, Research Triangle Park, NC 27711, telephone number (919) 541–5427, facsimile number (919) 541–5600, electronic mail (e-mail) address *telander.jeff@epa.gov.*

SUPPLEMENTARY INFORMATION: *Docket.* The EPA has established an official public docket for this action under Docket ID No. OAR–2002–0045. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the Air Docket in the EPA Docket Center, Room 108, 1301 Constitution Ave., NW, Washington, DC 20460. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744. The telephone number for the Air Docket is (202) 566–1742.

Electronic Access. You may access this **Federal Register** document electronically through the EPA Internet under the **Federal Register** listings at *http://www/epa.gov/fedrgstr/.*

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov.edocket/* to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility identified above. Once in the system, select "search," then key in the

appropriate docket identification number.

Background. On February 18, 2003, we published a direct final rule (68 FR 7706) and a parallel proposal (68 FR 7735) amending the NESHAP for chemical recovery combustion sources at kraft, soda, sulfite, and stand-alone semichemical pulp mills (40 CFR part 63, subpart MM). The amendments clarified and consolidated the monitoring and testing requirements and added a site-specific alternative standard for one pulp mill. We stated in the preamble to the direct final rule and parallel proposal that if we received significant adverse comment by March 20, 2003 on one or more distinct provisions in the direct final rule, we would withdraw those provisions. We subsequently received timely adverse comments on seven of the amendments:

- 40 CFR 63.864(a) through (c), related to a site-specific monitoring plan;
- 40 CFR 63.864(d)(1) and (2), related to monitoring specifications for continuous opacity monitoring systems;
- 40 CFR 63.864(e)(1) through (9), related to monitoring specifications for continuous parameter monitoring systems;
- 40 CFR 63.864(f), related to flow monitoring provisions;
- 40 CFR 63.864(h) and (i), related to data availability restrictions;
- 40 CFR 63.864(j)(5), related to requirements for establishing the operating range for monitoring parameters; and
- 40 CFR 63.864(j)(6), related to an operation and maintenance log for the period between the compliance date and performance test date.

We prepared an action withdrawing these amendments, but the Office of the Federal Register was unable to publish it before May 19, 2003 (the direct final rule's effective date). The final rule amends the subpart MM rule by deleting the provisions which were the subject of adverse comment, consistent with our originally stated intention. If we again address these issues related to monitoring, we will do so by acting on the proposed rule (68 FR 7735) after considering the comments received. We will not institute a second comment period.

We are also amending portions of the subpart MM rule added by the direct final rule to make two technical corrections to inadvertent errors in rule language. The first is a correction to a typographical error affecting one term in Equation 1 of 40 CFR 63.865(a)(1). The second is a correction to a cross-referencing error in 40 CFR 63.687(a)(3).

The Administrative Procedure Act, in 5 U.S.C. 553(b)(B), provides that, when an agency for good cause finds that notice and public procedure are impracticable, unnecessary, or contrary to the public interest, the agency may issue a rule without providing notice and an opportunity for public comment. We have determined that there is good cause for making today's rule final without prior proposal and opportunity for comment. With respect to the amendment deleting the provisions related to monitoring, we are amending the rule to carry out our stated intention of not allowing provisions of the direct final rule to take effect if they were the subject of adverse comment. There has already been notice and opportunity for comment on this action, and, under these circumstances, opportunity for further comment is unnecessary. Moreover, failure to amend the rule by deleting the provisions on which EPA received adverse comment would be contrary to public expectation based on EPA's express promise. There may in fact be detrimental reliance on EPA's promise, further supporting EPA's finding that there is good cause for immediate revision of the rule. The other changes to the rule are minor, noncontroversial technical corrections, which do not substantively change the rule's requirements. Thus, notice and opportunity for public comment on these technical corrections is also unnecessary. We find that this constitutes good cause under 5 U.S.C. 553(b)(B).

Section 553(d) allows an agency, upon a finding of good cause, to make a rule effective immediately. Because today's amendments delete regulatory language that was the subject of adverse comment, do not add any requirements necessitating additional time for compliance, and otherwise do not substantively change the requirements of the rule, we find good cause to make these amendments effective immediately.

Statutory and Executive Order Review

Under Executive Order 12866 (58 FR 51736, October 4, 1993), this action is not a "significant regulatory action" and is, therefore, not subject to review by the Office of Management and Budget. Because EPA has made a "good cause" finding that this action is not subject to notice and comment requirements under the Administrative Procedure Act or any other statute, it is not subject to the regulatory flexibility provisions of the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*), or to sections 202 and 205 of the Unfunded Mandates Reform Act of 1995 (UMRA) (Public Law 104–4). In addition, this action does not significantly or uniquely affect small governments or impose a significant intergovernmental mandate, as described in sections 203 and 204 of the UMRA. This action also does not significantly or uniquely affect the communities of tribal governments, as specified by Executive Order 13084 (63 FR 27655, May 10, 1998). This action will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132 (64 FR 43255, August 10, 1999). This action also is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because it is not economically significant.

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Public Law 104–113; 15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. The EPA is not proposing/adopting any voluntary consensus standards in this action.

This action does not involve special consideration of environmental justice related issues as required by Executive Order 12898 (59 FR 7629, February 16, 1994). In issuing these amendments, EPA has taken the necessary steps to eliminate drafting errors and ambiguity, minimize potential litigation, and provide a clear legal standard for affected conduct, as required by section 3 of Executive Order 12988 (61 FR 4729, February 7, 1996). The EPA has complied with Executive Order 12630 (53 FR 8859, March 15, 1988) by examining the takings implications of these amendments in accordance with the "Attorney General's Supplemental Guidelines for the Evaluation of Risk and Avoidance of Unanticipated Takings" issued under the executive order. These amendments do not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

The Congressional Review Act (5 U.S.C. 801 *et seq.*), as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that, before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. Section 808 allows the issuing agency to make a rule

effective sooner than otherwise provided by the Congressional Review Act if the agency makes a good cause finding that notice and public procedure is impracticable, unnecessary, or contrary to the public interest. This determination must be supported by a brief statement (5 U.S.C. 808(2)). As stated previously, EPA has made such a good cause finding, including the reasons therefor, and established an effective date of July 18, 2003. The EPA will submit a report containing the rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances, Reporting and recordkeeping requirements.

Dated: July 7, 2003.

Jeffrey R. Holmstead,

Assistant Administrator for Air and Radiation.

■ For the reasons set out in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is amended as follows:

PART 63—[Amended]

■ 1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart MM—[AMENDED]

■ 2. Section 63.864 is amended by removing and reserving paragraphs (a) through (c), (d)(1) and (2), (e)(1) through (9), (f), (h), (i), and (j)(5) and (6).

■ 3. Section 63.865 is amended by revising paragraph (a)(1) to read as follows:

§ 63.865 Performance test requirements and test methods.

* * * * *

(a) * * *

(1) Determine the overall PM emission limit for the chemical recovery system at the mill using Equation 1 of this section as follows:

$$EL_{PM} = \frac{\left[\left(C_{ref,RF}\right)\left(Q_{RFtot}\right) + \left(C_{ref,LK}\right)\left(Q_{LKtot}\right)\right](F1)}{\left(BLS_{tot}\right)} + ER1_{ref,SDT}$$

Where:

EL_{PM} = Overall PM emission limit for all existing process units in the chemical recovery system at the kraft or soda pulp mill, kg/Mg (lb/ton) of black liquor solids fired;

$C_{ref, RF}$ = Reference concentration of 0.10 g/dscm (0.044 gr/dscf) corrected to 8 percent oxygen for existing kraft or soda recovery furnaces;

Q_{RFtot} = Sum of the average volumetric gas flow rates measured during the performance test and corrected to 8 percent oxygen for all existing recovery furnaces in the chemical recovery system at the kraft or soda pulp mill, dry standard cubic meters per minute (dscm/min) (dry standard cubic feet per minute (dscf/min));

$C_{ref, LK}$ = Reference concentration of 0.15 g/dscm (0.064 gr/dscf) corrected to 10 percent oxygen for existing kraft or soda lime kilns;

QLK_{tot} = Sum of the average volumetric gas flow rates measured during the performance test and corrected to 10 percent oxygen for all existing lime kilns in the chemical recovery system at the kraft or soda pulp mill, dscm/min (dscf/min);

F1 = Conversion factor, 1.44 minutes·kilogram/day·gram (min·kg/d·g) (0.206 minutes·pound/day·grain (min·lb/d·gr));

BLS_{tot} = Sum of the average black liquor solids firing rates of all existing recovery furnaces in the chemical recovery system at the kraft or soda pulp mill measured during the performance test, megagrams per day (Mg/d) (tons per day (ton/d)) of black liquor solids fired; and

$ER1_{ref, SDT}$ = Reference emission rate of 0.10 kg/Mg (0.20 lb/ton) of black liquor solids fired for existing kraft or soda smelt dissolving tanks.

* * * * *

■ 4. Section 63.867 is amended by revising paragraph (a)(3) to read as follows:

§ 63.867 Reporting requirements.

(a) * * *

(3) In addition to the requirements in subpart A of this part, the owner or operator of the hog fuel dryer at Weyerhaeuser Paper Company's Cosmopolis, Washington, facility (Emission Unit no. HD–14) must include analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems in § 63.864(e)(12) in the Notification of Compliance Status.

* * * * *

[FR Doc. 03–18001 Filed 7–17–03; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 271

[FRL–7530–9]

Georgia: Final Authorization of State Hazardous Waste Management Program Revision

AGENCY: Environmental Protection Agency (EPA).

ACTION: Immediate final rule.

SUMMARY: Georgia has applied to EPA for Final authorization of the changes to its hazardous waste program under the Resource Conservation and Recovery Act (RCRA). EPA has determined that these changes satisfy all requirements needed to qualify for Final authorization, and is authorizing the State's changes through this immediate final action. EPA is publishing this rule to authorize the changes without a prior proposal because we believe this action is not controversial and do not expect comments that oppose it. Unless we get written comments which oppose this authorization during the comment period, the decision to authorize Georgia's changes to their hazardous waste program will take effect. If we get comments that oppose this action, we will publish a document in the **Federal Register** withdrawing this rule before it takes effect and a separate document in the proposed rules section of this **Federal Register** will serve as a proposal to authorize the changes.

Federal Register

Wednesday,
October 8, 2003

Part II

Environmental Protection Agency

40 CFR Part 63
National Emission Standards for Hazardous Air Pollutants: Site Remediation; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[OAR 2002–0021; FRL–7549–3]

RIN 2060–AH–12

National Emission Standards for Hazardous Air Pollutants: Site Remediation

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national emission standards for hazardous air pollutants (NESHAP) from site remediations. The final rule implements the Clean Air Act (CAA) section 112(d) to control hazardous air pollutants (HAP) emissions at major sources where remediation technologies and practices are used at the site to clean up contaminated environmental media (*e.g.*, soils, groundwaters, or surface waters) or certain stored or disposed materials that pose a reasonable potential threat to contaminate environmental media. Site remediations subject to the final rule are required to control emissions of organic HAP by meeting emissions limitations and work practice standards reflecting the application of maximum achievable control technology (MACT). The final rule applies to certain types of site remediation activities that are conducted at a facility where non-remediation sources are a major source of HAP emissions. Some site remediations already regulated by rules established under the Comprehensive Environmental Response and Compensation Liability Act (CERCLA) or the Resource Conservation and Recovery Act (RCRA) are not subject to the final rule.

The HAP emitted by site remediation activities can include benzene, ethyl benzene, toluene, vinyl chloride, xylenes, and other volatile organic compounds (VOC). The range of potential human health effects associated with exposure to these organic HAP and VOC include cancer, aplastic anemia, upper respiratory tract irritation, liver damage, and neurotoxic effects (*e.g.*, headache, dizziness, nausea, tremors).

EFFECTIVE DATE: October 8, 2003.

ADDRESSES: *Docket.* The official public docket is the collection of materials used in developing the final rule and is available for public viewing at the EPA Docket Center (EPA/DC), EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC 20004.

FOR FURTHER INFORMATION CONTACT: For information concerning applicability and rule determinations, contact your State or local representative or the appropriate EPA Regional Office representative. For information concerning the analyses performed in developing the final rule, contact Mr. Greg Nizich, Waste and Chemical Processes Group, Emission Standards Division (C439–03), U.S. EPA, Research Triangle Park, NC 27711, telephone number (919) 541–3078, facsimile number (919) 541–0246, electronic mail (e-mail) address *nizich.greg@epa.gov.*

SUPPLEMENTARY INFORMATION: *Regulated Entities.* Categories and entities potentially regulated by this action include:

Category	NAICS[1]	Examples of regulated entities
Industry	325211, 325192, 325188, 32411, 49311, 49319, 48611, 42269, 42271.	Site remediation activities at businesses at which materials containing organic HAP currently are or have been in the past stored, processed, treated, or otherwise managed at the facility. These facilities include: organic liquid storage terminals, petroleum refineries, chemical manufacturing facilities, and other manufacturing facilities with co-located site remediation activities.
Federal Government		Federal agency facilities that conduct site remediation activities to clean up materials contaminated with organic HAP.
State/Local/Tribal Government.		Tribal governments that conduct site remediation activities to clean up materials contaminated with organic HAP.

[1] North American Industry Classification System (NAICS) code. Representative industrial codes at which site remediation activities have been or are currently conducted at some but not all facilities under a given code. The list is not necessarily comprehensive as to the types of facilities at which a site remediation cleanup may potentially be required either now or in the future.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that we are now aware could potentially be regulated by this action.

A comprehensive list of NAICS codes cannot be compiled for businesses or facilities potentially regulated by the final rule due to the nature of activities regulated by the source category. The industrial code alone for a given facility does not determine whether the facility is or is not potentially subject to the final rule. The final rule may be applicable to any type of business or facility at which a site remediation is conducted to clean up media contaminated with organic HAP and other hazardous material. Thus, for many businesses and facilities subject to the final rule, the regulated sources (*i.e.*, the site remediation activities) are not the predominant activity, process, operation, or service conducted at the facility. In these cases, the industrial code indicates a primary product produced or service provided at the facility rather than the presence of a site remediation performed to support the predominant function of the facility. For example, NAICS code classifications where site remediation activities are currently being performed at some but not all facilities include, but are not limited to, petroleum refineries (NAICS code 32411), industrial organic chemical manufacturing (NAICS code 3251xx), and plastic materials and synthetics manufacturing (NAICS code 3252xx). However, we are also aware of site remediation activities potentially subject to the final rule being performed at facilities listed under NAICS codes for refuse systems, waste management, business services, miscellaneous services, and nonclassifiable.

To determine whether your facility is regulated by the action, you should carefully examine the applicability criteria in the final rule. If you have questions regarding the applicability of the final rule to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Docket. The EPA has established an official public docket for this action including both Docket ID No. A–99–20 and Docket ID No. OAR–2002–0021. The official public docket consists of the documents specifically referenced in

this action, any public comments received, and other information related to this action. All items may not be listed under both docket numbers, so interested parties should inspect both docket numbers to ensure that they have received all materials relevant to the final rule. Although a part of the official docket, the public docket does not include Confidential Business Information or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the Air Docket in the EPA Docket Center (EPA/DC), EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742.

Electronic Docket Access. You may access the final rule electronically through the EPA Internet under the **Federal Register** listings at *http://www.epa.gov/fedrgstr/.*

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility identified in the above section. Once in the system, select "search," then key in the appropriate docket identification number.

Worldwide Web (WWW). In addition to being available in the docket, an electronic copy of the final rule will also be available on the WWW through the Technology Transfer Network (TTN). Following signature, a copy of the final rule will be placed on the TTN's policy and guidance page for newly proposed or promulgated rules at *http://www.epa.gov/ttn/oarpg.* The TTN provides information and technology exchange in various areas of air pollution control. If more information regarding the TTN is needed, call the TTN HELP line at (919) 541–5384.

Judicial Review. The NESHAP for site remediation was proposed on July 30, 2002 (67 FR 49398). Today's final rule announces the EPA's decision on the final rule. Under CAA section 307(b)(1), judicial review of the final rule is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by December 8, 2003. Only those objections to the final rule which were raised with reasonable specificity during the period for public comment may be raised during judicial review. Under CAA section 307(b)(2), the requirements that are the subject of today's final rule may not be challenged later in civil or criminal proceedings brought by the EPA to enforce these requirements.

Outline. The information presented in this preamble is organized as follows:

I. Background
A. What is the statutory authority for the final rule?
B. How did we develop the final rule?
C. What criteria are used in the development of the final rule?
II. Summary of Final Rule
A. Who must comply with the final rule?
B. What are the affected sources?
C. What are my compliance options?
D. What are the emissions limitations and work practice standards?
E. What are the requirements for remediation material that is shipped off-site?
F. What are the general compliance requirements?
G. What are the initial compliance requirements?
H. What are the continuous compliance requirements?
I. What are the notification, recordkeeping, and reporting requirements?
J. What are the compliance deadlines?
K. How does the "once in, always in" policy apply?
III. Responses to Major Comments on Proposed Rule
A. Why are we promulgating a NESHAP to regulate HAP emissions from site remediation activities?
B. How did we select the HAP to be regulated by the final rule?
C. How do we define site remediation for the final rule?
D. Why does the final rule not apply to CERCLA Superfund and RCRA Corrective Action cleanups?
E. Why does the final rule potentially apply to State and voluntary cleanup programs?
F. How does the final rule apply to cleanups of leaking underground storage tanks?
G. How does the final rule apply to cleanups of radioactive mixed waste?
H. How does the final rule apply to short-term site remediations at affected facilities?
I. How does the final rule apply to remediation materials sent off-site from affected facilities?
IV. Summary of Environmental, Energy, and Economic Impacts
A. What are the air emission impacts?
B. What are the cost impacts?
C. What are the economic impacts?
D. What are the non-air health, environmental and energy impacts?
V. Statutory and Executive Order Reviews
A. Executive Order 12866: Regulatory Planning and Review
B. Paperwork Reduction Act
C. Regulatory Flexibility Act
D. Unfunded Mandates Reform Act
E. Executive Order 13132: Federalism
F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments
G. Executive Order 13045: Protection of Children from Environmental Health and Safety Risks
H. Executive Order 13211: Actions that Significantly Affect Energy Supply, Distribution, or Use
I. National Technology Transfer Advancement Act
J. Congressional Review Act

I. Background

A. What Is the Statutory Authority for the Final Rule?

Section 112 of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. Major sources of HAP are defined by CAA section 112(a)(1) as those sources that have the potential to emit greater than 10 tons per year (tpy) of any one HAP or 25 tpy of any combination of HAP. Area sources are stationary sources of HAP that are not major sources. The category of major sources covered by today's final NESHAP for site remediation, was listed on July 16, 1992 (57 FR 31576). We included site remediation on the source category list to address HAP emissions at major sources where remediation technologies and practices are used at the site to clean up contaminated environmental media (*e.g.*, soils, groundwaters, or surface waters) or certain stored or disposed materials that pose a reasonable potential threat to contaminate environmental media.

B. How Did We Develop the Final Rule?

We proposed the Site Remediation NESHAP on July 30, 2002 (67 FR 49398). A 60-day public comment period (July 30, 2002 to September 30, 2002) was provided for the public to submit their comments on the proposed rule. Also, we offered to hold a public hearing to allow any interested persons to present their oral comments on the proposed rule. However, we did not receive a request from anyone to speak at the public hearing, so a public hearing was not held.

We received a total of 51 comment letters and e-mails regarding the proposed rule. Two commenters affiliated with the U.S. Department of the Navy independently submitted the same set of comments; and two

commenters from the State of Alabama each submitted two separate and distinct sets of comments.

The final rule promulgated by this action reflects our full consideration of all the comments we received on the rule proposal. Our responses to all of the substantive public comments on the proposal are presented in the background information document (BID) titled, "National Emission Standards for Hazardous Air Pollutant (NESHAP) for Site Remediation: Background Information for Promulgated Standards." The BID is available in Docket No. OAR–2002–0021.

C. What Criteria Are Used in the Development of the Final Rule?

Under CAA section 112(d), we are directed to establish NESHAP for the control of HAP from both new and existing major sources. The CAA requires that each NESHAP reflect the maximum degree of reduction in emissions of HAP that is achievable for the source category or subcategory. This level of control is commonly referred to as the maximum achievable control technology (MACT).

The MACT floor is the minimum control level allowed for NESHAP and is defined under CAA section 112(d)(3). Establishing the MACT floor ensures that each standard is set at a level that assures that all major sources within a source category or subcategory achieve a level of control at least as stringent as that already achieved by the better-controlled and lower-emitting sources in the applicable source category or subcategory. For new sources, the MACT floor cannot be less stringent than the emission control achieved in practice by the best-controlled similar source. The MACT standards established for existing sources can be less stringent than standards for new sources, but the existing source standards cannot be less stringent than the average emissions limitation achieved by the best-performing 12 percent of existing sources in the category or subcategory (or the best-performing five sources for categories or subcategories with fewer than 30 sources).

In developing NESHAP, we also consider control alternatives that are more stringent than the MACT floor. Section 112(d)(2) of the CAA allows us to establish standards that are more stringent than those that would be established by the MACT floor level based on the consideration of costs to achieve the emissions reductions, any health and environmental impacts, and energy requirements.

To determine MACT for the affected sources regulated by the Site Remediation NESHAP, we established at proposal that the MACT floor for existing affected sources associated with site remediation activities is some level of air emission control beyond no controls. Also, we decided to not compute an emission limitation statistically or identify specific control technology that represents the MACT floor for the site remediation sources because of the uniqueness of the site remediation source category, the extent of information available to us, and the complexities of gathering additional meaningful information (see 67 FR 49414–49415). Instead, we relied on provisions of CAA section 112(d)(2) that allow us to select MACT for a source category that is more stringent than the MACT floor.

We chose to select the MACT technology directly from alternatives beyond the MACT floor for each affected source type selected to be subject to the Site Remediation NESHAP. To do this, we looked at the types of air emission controls demonstrated to achieve control levels required under national air standards for sources similar to those sources that potentially may be associated with site remediations (particularly the NESHAP for Off-Site Waste and Recovery Operations under 40 CFR part 63, subpart DD, and the air standards for RCRA hazardous waste treatment, disposal, and facilities (TSDF) under subparts AA, BB, and CC in 40 CFR parts 264 and 265). Because the air emission controls needed to achieve the control levels required under the rules applicable to sources similar to those sources subject to the final Site Remediation NESHAP are now being implemented by facility owners and operators, we concluded that this demonstrates that these control levels are technically achievable, the costs are reasonable, and there are no adverse non-air quality health, environmental impacts, or energy requirements associated with the selected control levels.

Following proposal, we reviewed our data sources to determine the availability of additional information on air pollution controls currently in use for site remediation activities. No new data or information to update and supplement our original data were provided by commenters on the proposed rule. We concluded that our original database remains the best available source of information available to us. The control levels established by the emission limitation and work practices established by the final Site Remediation NESHAP are the same controls levels being implemented at similar sources subject to other NESHAP and related national air rules.

II. Summary of Final Rule

The final rule amends 40 CFR part 63 by adding subpart GGGGG—National Emission Standards for Hazardous Air Pollutants for Site Remediation. At proposal, we received comments stating that the organization, reliance on presenting many rule requirements in an exclusively tabular format, and extensive cross-referencing to provisions in other subparts which we used for the proposed rule made it difficult to read and understand. We have written the final rule to reflect those comments. Many of the requirements that were presented exclusively in tables in the proposed rule have been moved back into the regulatory text of the final rule, and the applicable tables were deleted. While these editorial changes to the final rule make it appear substantially different from the proposed rule, most of the technical and administrative requirements remain the same as proposed.

A. Who Must Comply With the Final Rule?

We have written the applicability requirements to clarify our intent as to what is a site remediation activity and how the final rule applies to these activities. You are subject to the final rule if you own or operate a facility that is a major source of HAP emissions and where a site remediation is conducted that meets the definitions and conditions specified in the final rule. Certain types of site remediations are explicitly exempted from being subject to the final rule.

Applicability Definitions and Conditions

In the final rule, we have added a new definition for the term "site remediation" and written our proposed definition of "remediation material" to clarify the final rule's applicability and to improve implementation of the final rule's requirements. Site remediation means one or more activities or processes used to remove, destroy, degrade, transform, immobilize, or otherwise manage remediation material, as defined in the final rule. Monitoring or measuring of contamination levels in media, whether by using wells, sampling, or other means, is not considered to be a site remediation.

We have written the definition of remediation material to clarify the term's meaning consistent with our

intent that the final rule address HAP emissions from site remediations to clean up environmental media contaminated with HAP (*e.g.*, soils, groundwaters, surface waters), as well as clean up certain stored or disposed materials that contain HAP and pose a reasonable potential threat to contaminate environmental media. The final Site Remediation NESHAP is applicable to those site remediations that involve the cleanup of materials with the potential to emit the HAP we have listed in the final rule. Also, the revised definition of remediation material used in the final rule explicitly identifies two groups of materials considered to be remediation materials for the purpose of implementing the final rule.

Remediation material as defined for the final Site Remediation NESHAP must contain one or more of the HAP listed in Table 1 of the final rule. Table 1 of the final rule presents a list of 97 specific organic HAP compounds, isomers, and mixtures, and is the same list that we proposed with one correction. The compound 1–1 dimethyl hydrazine was incorrectly included on list published with the proposed rule, and this compound has been deleted from the list in the final rule. If your site remediation does not involve the cleanup of remediation material containing any of the HAP listed in Table 1 of the final rule, then you are not subject to the final Site Remediation NESHAP.

The first group of materials included in the definition of remediation material addresses air emissions from site remediations to clean up environmental media contaminated with HAP. These materials are found in environmental media such as soil, groundwater, surface water, and sediments, or a mixture of such materials with liquids, sludges, or solids which is inseparable by simple mechanical removal processes and is made up primarily of media. Our use of the term "media" for the final rule does not include debris as defined in 40 CFR 268.2.

The second group of materials included in the definition of remediation material addresses air emissions from site remediations to clean up materials containing HAP that are stored or disposed at a site and that pose a reasonable potential threat to contaminating environmental media. These are defined to be materials containing HAP that are found in intact or substantially intact containers, tanks, storage piles, or other storage units. Examples of these materials include solvents, oils, paints, and other volatile or semi-volatile organic liquids found in buried drums, cans, or other containers; gasoline, fuel oil, or other fuels in leaking underground storage tanks; and solid materials containing volatile or semi-volatile organics in unused or abandoned piles. We do not consider remediation material, for example, to include waste or residue generated by routine equipment maintenance activities performed at a facility such as tank bottoms and sludges removed during tank cleanouts; sludges and sediments removed from active wastewater treatment tanks, surface impoundments, or lagoons; spent catalyst removed from process equipment; residues removed from air pollution control equipment; and debris removed during heat exchanger and pipeline cleanouts. The removal and subsequent management of these types of waste and residue materials are not remediation activities, but instead, are good operating and maintenance practices that facility owners and operators perform to help sustain process and air pollution control equipment performance at the equipment's design specifications and to extend the equipment's service life.

Hereafter in this preamble, the term remediation material is used as defined in the final Site Remediation NESHAP. Not all site remediations to clean up remediation material are subject to the final Site Remediation NESHAP. Certain site remediations are explicitly exempted from being subject to the final rule. Of the site remediations not specifically exempted, only site remediations to clean up remediation material that meet both of the additional applicability conditions specified in the rule are subject to the final rule.

We have written the final rule to clarify the applicability conditions used to determine if your site remediation is subject to the final rule. These conditions have not changed from the proposed rule other than we have reworded the regulatory language to better describe the types of site remediations we intend the final rule to affect. If your site remediation is not included on the list of exempted site remediations in § 63.7881(b) of the final rule or you can qualify for the facility-wide small HAP content exemption in § 63.7881(c), then you make a determination of whether both of the applicability conditions specified in the final rule apply to your cleanup. If either of the applicability conditions do not apply to your cleanup, then your site remediation is not subject to the final Site Remediation NESHAP.

The first applicability condition is that a site remediation to clean up remediation material must be co-located with one or more stationary sources of HAP emissions within a contiguous area and under common control that meets an affected source definition specified for a source category that is regulated by another NESHAP in 40 CFR part 63. The re-wording of this condition in the final rule eliminated the need for the term "MACT activity" that was included in the proposed rule. That term no longer appears. This condition applies regardless of whether or not the non-remediation affected stationary sources at your site are subject to, or exempted from, the control standards under the applicable subpart. For example, if a site remediation is performed at a petroleum refinery subject to 40 CFR part 63, subpart CC—National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries, then a site remediation to clean up remediation materials conducted at the facility meets this applicability condition. If there are no stationary sources that meet this applicability condition at the facility where a site remediation is conducted, then you are not subject to the final rule.

We provided this condition to simplify the applicability determination process whereby an owner or operator of a site remediation with low HAP potential can easily determine that they are not subject to the Site Remediation NESHAP without having to estimate potential HAP emissions. This is a reasonable approach since we believe that remediation activities that are not collocated with a stationary source, or sources, meeting the affected source definition of another NESHAP would not be major sources by themselves. The one possible exception could be some CERCLA sites, which might themselves be major sources without regard for collocation with a major source, but these sites are exempt from the final rule.

The other applicability condition is that the facility at which you conduct a site remediation to clean up remediation material must be a major source, as defined in § 63.2 of the General Provisions to 40 CFR part 63. Your facility is a major source if it emits or has the potential to emit HAP above the threshold levels of 10 tpy for any single HAP and 25 tpy for any combination of HAP. All potential emissions of HAP from the entire facility (*i.e.*, both the remediation activity and all other facility activity) must be considered in making this calculation. It is also important to note that the determination of the major source status of a given facility is determined based on all HAP listed pursuant to CAA section 112(b) (*i.e.*, not just the HAP listed in Table 1 of the final Site Remediation NESHAP).

A source that is not a major source is an area source. If your HAP emission determination shows that when you conduct the site remediation your site will remain an area source (*i.e.*, the total potential HAP emissions from the existing sources at your site plus the estimated HAP emissions from the site remediation activities to be performed for the cleanup are less than the major source threshold levels), then your site remediation is not subject to the final Site Remediation NESHAP. If your site is currently an area source, but will become a major source when you conduct the site remediation, then your site remediation is subject to the final Site Remediation NESHAP. However, for this situation because of the uniqueness of this source category and the nature of the activities regulated by the final rule, there is a special exception to the "once in, always in" NESHAP policy as related to your facility's NESHAP compliance obligations.

Site Remediation Applicability Exemptions

The final rule does not apply to certain site remediations that are explicitly exempted, regardless of the organic HAP content of the remediation materials or the status of other stationary sources at the locations where these site remediations are conducted. In general, these exemptions apply to site remediation activities regulated under other Federal rules and requirements or which have special circumstances that make application of requirements under the final rule unnecessary or problematic. The exempted site remediations are listed in § 63.7881(b) of the final rule. The final Site Remediation NESHAP does not apply to CERCLA Superfund and RCRA corrective actions to clean up hazardous substances, hazardous wastes, and hazardous constituents. In short, we view the Superfund program under CERCLA and the hazardous waste corrective action program under RCRA as the functional equivalents of the establishment of MACT standards under CAA section 112. These programs, as part of the ROD process for Superfund cleanups and the RCRA permitting process for corrective action cleanups, require consideration of the same HAP emissions that we do in establishing MACT standards, and provide opportunity for public involvement in these site-specific remediation determinations. The RCRA and CERCLA statues apply more specifically to the remediation process than does MACT under the CAA and, unlike the CAA, authorize site specific means of dealing with remediation activities and their associated HAP emissions. Consequently, we are exempting these activities from the MACT standards promulgated in the final rule.

In response to comments on the proposed exemptions for site remediations to clean up contamination from units managing radioactive mixed waste, we collected additional information and reviewed the basis for the proposed exemption. Because the technical issues related to safety concerns for containers and other storage units managing radioactive mixed wastes do not apply to site remediation treatment unit process vents and equipment leaks, the final Site Remediation NESHAP limits the exemption for radioactive mixed waste to only remediation material management units (a term explained fully below). Remediation activities (that meet the final rule applicability criteria) to clean up radioactive mixed waste are subject to standards for treatment unit process vents and equipment leaks under the final Site Remediation NESHAP. Also, we have written the final rule language to clarify the applicability of this exemption to site remediations involved with the cleanup of radioactive mixed wastes. To be consistent with the definitions used in RCRA, mixed waste is defined in the final rule as waste that contains both hazardous waste subject to RCRA and either source, special nuclear, or byproduct material subject to the Atomic Energy Act of 1954. Also, an additional reference to the Waste Isolation Pilot Plant Land Withdrawal Act (Public Law 102–579) is added to the final rule exemption language to include the management of mixed transuranic waste within the scope of the exemption.

Finally, the final rule maintains the other exemptions we proposed. The final rule does not apply to a site remediation to clean up leaking underground storage tanks located at a gasoline service station. The final rule does not apply to any site remediation conducted at a farm or residential site. Also, the final rule does not apply to a site remediation conducted at a research and development facility that meets the requirements of CAA section 112(c)(7).

The final rule retains the proposed exemption for site remediations of short duration. However, this exemption has been modified from the proposed exemption to address public comments we received and to resolve potential issues regarding the practical implementation and enforcement of the exemption.

Under the short-term site remediation exemption, a site remediation at a facility subject to the final rule is not subject to the emissions limitations and work practice standards in the final Site Remediation NESHAP if the site remediation can be completed within 30 consecutive calendar days as determined from the day on which you actually begin work at the site to physically clean up the remediation materials. Certain administrative and site preparation activities you need to perform before you can physically begin the cleanup are not counted as part of this 30-day exemption period. These pre-activities consist of the following: activities you perform to characterize the type and extent of the contamination by collecting and analyzing samples, obtaining any permits required by State or local authorities to conduct the site remediation, scheduling workers and necessary equipment, and arranging for any contractor assistance in performing the site remediation. To qualify for the short-term site remediation exemption, you must prepare and maintain at your facility written documentation describing the exempted site remediation and listing the initiation and completion dates for the site remediation.

B. What Are the Affected Sources?

The final rule designates three types of affected sources subject to requirements under the final rule: process vents on in-situ and ex-situ remediation treatment processes; units used to manage remediation materials (called remediation material management units" in the final rule); and equipment leaks from pumps, valves, and other ancillary equipment associated with the remediation activities. The affected source designations in the final rule are the same as proposed.

The affected source for process vents is the entire group of process vents associated with the in-situ and ex-situ remediation processes used at your site to remove, destroy, degrade, transform, or immobilize hazardous substances in the remediation material. Examples of process vents for in-situ remediation processes include the discharge vents to the atmosphere used for soil vapor extraction and underground bioremediation processes. Examples of process vents for ex-situ remediation processes include vents for thermal desorption, bioremediation, and stripping processes (air or steam stripping).

The term remediation material management unit is used in the final rule to refer collectively to any tank,

container, surface impoundment, oil-water separator, organic-water separator, or transfer system used to store, transfer, treat, or otherwise manage remediation material at the site. The affected source for remediation material management units is the entire group of tanks, surface impoundments, containers, oil-water separators, and transfer systems used for the site remediation activities involving clean up of remediation material.

The affected source for equipment leaks is the entire group of remediation equipment components (pumps, valves, etc.) that contain or contact remediation material having a total concentration of HAP listed in Table 1 of the final rule equal to or greater than 10 percent by weight, and are intended to operate for 300 hours or more during a calendar year.

C. What Are My Compliance Options?

Each site remediation subject to the final Site Remediation NESHAP must meet the applicable standards specified in the final rule for the types of the affected sources associated with the site remediation unless the site remediation qualifies for an exemption provided in the final rule. Separate sets of standards are established for each of the affected source groups. These standards and exemptions were included in the proposed rule. A new section has been added to the final rule titled "General Standards" to better delineate and clarify the overall compliance options and exemptions allowed under the final rule for each affected source group.

Process Vents

The general standards for affected process vents describe three compliance options. The first compliance option is to control HAP emissions from the affected process vents to meet the facility-wide emissions limitations and associated work practice standards established in the final rule.

The second compliance option is to determine that the average total volatile organic HAP (VOHAP) concentration in the remediation material treated or managed by the process that is vented through the affected process vents is less than 10 parts per million by weight (ppmw). The determination of the VOHAP concentration is based on the concentration of organic HAP listed in Table 1 of the final rule using sampling and analysis procedures specified in the final rule. Affected process vents that meet this option are not subject to air pollution control requirements under the final rule.

The third compliance option is for process vents that are already using air pollution controls to comply with another subpart under 40 CFR part 61 or 40 CFR part 63. Under this option, you treat your remediation material in a process for which the HAP emissions from the affected process vent are controlled in compliance with the standards specified in the applicable subpart. This means you are complying with all applicable emissions limitations and work practice standards under the other subpart (*e.g.*, you install and operate the required air pollution control devices or have implemented the required work practice to reduce HAP emissions to levels specified by the applicable subpart). This provision only applies if the other subpart actually specifies a standard requiring control of HAP emissions from your affected process vents. It does not apply to any exemption of the affected source from using air pollution controls allowed by the other applicable subpart.

Remediation Material Management Units

The general standards for remediation material management units provide two compliance options that apply to all affected units. Two other compliance options are available to some affected remediation material management units that meet special conditions specified in the final rule.

The first compliance option available to all affected remediation material management units is to control HAP emissions from the affected remediation material management unit according to the emissions limitations and work practice standards specified in the final rule. Separate emissions limitations and work practice standards are established under the final rule for each type of remediation material management unit (*i.e.*, separate standards for tanks, separate standards for containers, etc.).

The second compliance option available to all affected remediation material management unit is to determine the average total VOHAP concentration of the organic HAP listed in Table 1 of the final rule that is contained in the remediation material. If the VOHAP concentration of the material is less than 500 ppmw, then the remediation material management units handling this material are not subject to the applicable emissions limitations and work practice standards established under the final rule. The VOHAP concentration determination is based on the organic HAP content of the remediation material at the "point-of-extraction" as measured or estimated using the procedures specified in the final rule. Point-of-extraction is a defined term in the final rule that means a point above ground where you can collect samples of a remediation material before or at the first point where organic constituents in the material have the potential to volatilize and be released to the atmosphere, and (in all instances) before placing the material in a remediation material management unit.

The final rule provides two other compliance options that apply to certain affected remediation material management units that operate under the special circumstances specified in the final rule. The first of these compliance options is available for any affected remediation material management unit also subject to another subpart under 40 CFR part 61 or 63. Under this option, you must control HAP emissions from the affected remediation material management unit in compliance with the standards specified in the applicable subpart. Implementation of this provision is the same as discussed above for process vents. The provision only applies to your affected remediation material management unit if the other subpart actually specifies a standard requiring control of organic HAP emissions from the same type of unit as your remediation material management unit (*i.e.*, if your affected remediation material management unit is a tank, then the other subpart must specify organic HAP emission control requirements for tanks). It does not apply to any exemption of the affected source from using air pollution controls allowed by the other applicable subpart (*e.g.*, if the other subpart exempts tanks with capacities less 10,000 gallons from the control requirements, that exemption does not apply to the affected tanks you use for your site remediation activities).

A final compliance option is available for a remediation material management unit that is an open tank or surface impoundment and is used for a biological treatment process. Under this compliance option, you must demonstrate that the treatment process meets one of HAP biodegradation or removal levels specified in the final rule.

The final rule includes a special site-specific exemption for remediation material management units that manage materials with small quantities of the organic HAP listed in Table 1 of the final rule. Due to the nature of the media contamination or other site-specific circumstances, the cleanup at a site may require use of specialized or custom equipment that meets the definition of a remediation material management unit under the final rule

but this equipment's design or configuration makes it technically problematic or very expensive to install and operate the air pollution controls required under the final rule for the particular type of remediation material management unit. Therefore, the final rule provides for a site-specific exemption from the applicable emissions limitations and work practice standards under the final rule to allow use of these remediation material management units in situations where the potential for HAP emissions is relatively low. A remediation material management unit can be exempted from the applicable emissions limitations and work practice standards under the final rule provided that the owner or operator determines that the total annual quantity of the organic HAP listed in Table 1 of the final rule that is contained in the remediation material placed in the unit remains at a level less than 1 Mg/yr.

Equipment Leaks

Under the final rule, you must control HAP emissions from equipment leaks from each equipment component that contains or contacts remediation material having a total concentration of the organic HAP listed in Table 1 of the final rule equal to or greater than 10 percent by weight, and are intended to operate for 300 hours or more during a calendar year. Control of these emissions is achieved by implementing a leak detection program and installing equipment.

D. What Are the Emissions Limitations and Work Practice Standards?

The emissions limitations and work practice standards established by the final Site Remediation NESHAP remain essentially the same as proposed. The standards are the same for existing, reconstructed, and new sources.

Process Vents

The process vent standards are the same regardless of whether the process is an in-situ or ex-situ treatment process. These standards apply to the entire group of affected process vents associated with all of the treatment processes used for your site remediation.

The first option is to reduce emissions of total organic HAP emissions listed in Table 1 of the final rule from all affected process vents at the facility to a level less than 1.4 kilograms per hour (kg/hr) and 2.8 Mg/yr, which is approximately 3.0 pounds per hour (lb/hr) and 3.1 tpy, respectively. You must achieve both the hourly and annual mass emissions limits to comply with this option under the final rule. If the total organic HAP emissions from all affected process vents associated with your site remediation exceed either the hourly or annual mass emissions limitations, then you must use appropriate controls to reduce the emission levels to comply with the emissions limits. If you can meet both the hourly and annual mass emissions limits using no controls, or with federally-enforceable controls, then no additional controls are required under the final rule for your affected process vents.

If you choose, you may demonstrate compliance with the hourly and annual emission limits based on total organic compounds (TOC) minus methane and ethane in place of total organic HAP. Because your compliance determinations based on TOC will be simpler and less expensive than if you use total organic HAP, it may be advantageous for your particular site-specific conditions to choose to comply with the emission limits based on TOC.

As an alternative, you may comply with an emission limit that requires that you reduce the total organic HAP emissions listed in Table 1 of the final rule from all of the affected process vents by at least 95 weight percent. Again, you may demonstrate compliance with this emission limit using TOC emissions (minus methane and ethane) in place of using total organic HAP emissions. At sites with multiple affected process vent streams, you may comply with this option by a combination of controlled and uncontrolled process vent streams that achieve the 95 percent reduction standard on an overall mass-weighted average. You may exclude certain low flow and low HAP concentration process vent streams explicitly specified in the final rule from the percent reduction calculation. Under this option, you must meet the operating limit and work practice standards specified in the final rule for each control device and closed vent system used to control your process vent streams.

Remediation Material Management Units

The air pollution control requirements for remediation material management units in the final Site Remediation NESHAP are based on using the applicable national emission standards established in other subparts of 40 CFR part 63 for specific types of equipment whenever available and appropriate to do so for this source category. For applications where appropriate NESHAP are not included in the final Site Remediation NESHAP, we have relied on establishing air emission control requirements that are consistent with the requirements under 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations. Subpart DD applies to facilities that are major sources of HAP; receive wastes, used oils, or used solvents generated at off-site locations; and manage and treat these materials in units and processes collectively referred to as off-site waste and recovery operations (OSWRO). The final rule has been written to directly cross-reference the appropriate subparts of 40 CFR part 63.

Tanks. Under the final rule for those tanks managing remediation materials with a maximum HAP vapor pressure of the remediation material less than 76.6 kPa and required to meet the air emission control requirements, you must achieve the applicable level of control (Tank Level 1 or Tank Level 2) determined by the tank design capacity and the maximum HAP vapor pressure of the remediation material placed in the tank. For each tank required to use Tank Level 1 controls, you must use a fixed roof according to the requirements in 40 CFR part 63, subpart OO—National Emission Standards for Tanks—Level 1. For each tank required to use Tank Level 1 controls, you may also comply with the final rule by using Tank Level 2 controls if you choose to do so. For each tank required to use Tank Level 2 controls, you must comply with one of five compliance options: use a fixed roof with an internal floating roof, use an external floating roof, use a fixed roof vented to a control device, use a pressurized tank that operates as a closed system during normal operations, or locate an open tank inside a permanent total enclosure that is vented to a control device.

The final rule requirements for the Tank Level 2 internal and external floating roof control option requirements have been revised since proposal by replacing the cross-reference to the floating roof requirements in the 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations with a cross-reference to the floating roof control requirements in 40 CFR part 63, subpart WW—National Emission Standards for Storage Vessels (Tanks)—Control Level 2. The requirements for floating roofs in both rules are essentially the same. This change was made to be consistent with our format changes to the final Site Remediation NESHAP to directly cross-reference the applicable control

requirement where applicable to and appropriate for the type of remediation material management units (in this case tanks) regulated by the final rule.

We stated at proposal that the basis for the selection of tank control requirements in the final Site Remediation NESHAP is the tank control requirements in the 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations (67 FR 49415). We inadvertently omitted from the version of proposed Site Remediation NESHAP published in the **Federal Register** the tank control requirements for tanks managing remediation materials with a maximum HAP vapor pressure of 76.6 kPa or greater included under 40 CFR part 63, subpart DD. For the final rule, we have corrected this omission and have added to the air pollution control requirements for tanks managing these remediation materials. The controls required under the final Site Remediation NESHAP are the same requirements in 40 CFR part 63, subpart DD. Tanks managing remediation materials with a maximum HAP vapor pressure of 76.6 kPa or greater use one of the Tank Level 2 control options other than a floating roof.

Containers. The final rule establishes emissions limitations and work practice standards to control organic HAP emissions from containers having a design capacity greater than 0.1 cubic meters (approximately 26 gallons). For those containers required to use air pollution controls, you must achieve the applicable level of control determined by the container design capacity, the organic content of the remediation material in the container, and whether the container is used for a waste stabilization process. You must comply with the specified requirements for the applicable control level in 40 CFR part 63, subpart PP—National Emission Standards for Containers.

Surface impoundments. For each surface impoundment required to use air pollution controls, you must use a floating membrane cover or a cover vented to a control device according to the requirements in 40 CFR part 63, subpart QQ—National Emission Standards for Surface Impoundments.

Separators. For each oil-water or organic-water separator required to use air pollution controls, you must use a fixed roof, use a floating roof, vent emissions to a control device, or use a pressurized separator according to the requirements in 40 CFR part 63, subpart VV—National Emission Standards for Oil-Water and Organic-Water Separators.

Transfer systems. For each individual drain system required to use air pollution controls, you must comply with the requirements in 40 CFR part 63, subpart RR—National Emission Standards for Individual Drain Systems. For an affected transfer system other than individual drain systems, you are required to comply with one of three options: use covers, use continuous hard-piping, or use an enclosure vented to a control device.

Closed Vent Systems and Control Devices. In final Site Remediation NESHAP we have added a separate series of sections (§§ 63.7925 through 63.7928) that specify in one part of the final rule all of the emissions limitations and work practice standards that apply to each closed-vent system and control device you use to meet the requirements in another section of the final rule. The same requirements for closed-vent systems and control devices that we proposed are now presented in these sections. Each control device you use to meet requirements under the final Site Remediation NESHAP (with the exception of the facility-wide process vent emission limits) must reduce emissions of total organic HAP listed in Table 1 of the final rule or the emissions of TOC (minus methane and ethane) by 95 percent by weight. If a combustion control device is used (thermal incinerator, catalytic incinerator, boiler, or process heater), a second compliance option available to you is for the control device to reduce the concentration of total HAP listed in Table 1 of the final rule or TOC (minus methane and ethane) to 20 parts per million by volume (ppmv) or less on a dry basis corrected to 3 percent oxygen. All control devices you use to meet requirements under the final rule (including any control devices you use to meet the facility-wide process vent emission limits) must meet operating limits for each type of control device and work practice standards for closed vent systems and certain types of control devices.

In addition, we have added to the final rule several more control device compliance options that are under 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations for emissions vented to a boiler, process heater, or fuel system but was not included in the proposed Site Remediation NESHAP. Under these compliance options, as an alternative to complying with the 95 percent reduction requirement for control devices, you may comply with any of the following work practice standards: introduce the vent stream into the flame zone of the boiler or process heater and maintain the conditions in the combustion chamber at a residence time of 0.5 seconds or longer and at a temperature of 760°C or higher, or introduce the vent stream with the fuel that provides the predominant heat input to the boiler or process heater (*i.e.*, the primary fuel), or introduce the vent stream to a boiler or process heater for which you either have been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 266, subpart H—Hazardous Waste Burned in Boilers and Industrial Furnaces; or has certified compliance with the interim status requirements of 40 CFR part 266, subpart H.

Equipment Leaks

The final rule establishes work practice standards to control organic HAP emissions from leaks in pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, flanges and other connectors, and product accumulator vessels that either contain or contact a regulated material that is a fluid (liquid or gas) and has a total concentration of the organic HAP listed in Table 1 of the final rule equal to or greater than 10 percent by weight. These work practice and equipment standards do not apply to equipment that operates less than 300 hours per calendar year. You have the option of complying with the provisions of either 40 CFR part 63, subpart TT—National Emission Standards for Equipment Leaks—Control Level 1 or 40 CFR part 63, subpart UU—National Emission Standards for Equipment Leaks—Control Level 2. Both of these subparts require you to implement a leak detection and repair program (LDAR) and to make certain equipment modifications.

E. What Are the Requirements for Remediation Material That Is Shipped Off-Site?

Under the final rule, where remediation material that will be required to be managed in either remediation material management units or treatment processes equipped with process vents is shipped to an off-site facility, you may need to meet certain requirements before transferring the material and maintaining records for the transferred materials. We have written the final regulatory language for the requirements for transfer of remediation wastes to reflect our original objective in establishing the requirements. Also, we have simplified the reporting and recordkeeping requirements in the final

rule related to some off-site transfers of remediation materials. Finally, we have included in the final rule an explicit provision stating that the acceptance by a facility owner or operator of remediation material from a site remediation subject to the final Site Remediation NESHAP does not, by itself, require the facility owner or operator to obtain a title V permit.

F. What Are the General Compliance Requirements?

Under the final rule, you must meet each applicable emission limitation and work practice standard in the final rule at all times, except during periods of startup, shutdown, and malfunction. You must develop and implement a written startup, shutdown, and malfunction plan for your site remediation according to the provisions of 40 CFR 63.6(e)(3). You also must develop and implement a site-specific monitoring plan for each continuous monitoring system required by the final rule. The plan must address installation location, performance and equipment specifications, and procedures for performance evaluations, operation and maintenance, data quality assurance, and recordkeeping and reporting. We have deleted the proposed operation and maintenance requirements for continuous parameter monitoring systems from the final rule. We are planning to develop and promulgate a single set of operation and maintenance requirements for continuous parameter monitoring systems applicable to all NESHAP under 40 CFR part 63.

G. What Are the Initial Compliance Requirements?

Initial compliance with the emissions limitations and work practice standards for process vents is achieved by demonstrating compliance with the selected set of emission limits (*i.e.*, mass emission limit or percent reduction). If a control device is used to achieve compliance with the emission limits, you also must establish your operating limits for the control device based on the values measured during the performance test or determined by the design evaluation.

Initial compliance with the emissions limitations and work practice standards for remediation material management units is achieved by demonstrating that the unit meets all applicable air emission control requirements for the unit. If a control device is used, initial compliance is determined by either: performing a performance test according to 40 CFR 63.7 and using specific EPA reference test methods, or performing a design evaluation according to procedures specified in the final rule. You also must establish your operating limits for the control device based on the values measured during the performance test or determined by the design evaluation.

H. What Are the Continuous Compliance Provisions?

To demonstrate continuous compliance with the applicable emissions limitations and work practice standards under the final rule, you must perform periodic inspections and continuous monitoring of certain types of air pollution control equipment you use to comply with the final rule. In those situations when a deviation from the operating limits specified for a control device is indicated by the monitoring system or when a damaged or defective component is detected during an inspection, you must implement the appropriate corrective measures.

To demonstrate continuous compliance with an emission limitation for a given affected source, you must continuously monitor air emissions or operating parameters appropriate to the type of control device you are using to comply with the standard, and keep a record of the monitoring data. Compliance is demonstrated by maintaining each of the applicable parameter values within the operating limits established during the initial compliance demonstration for the control device.

There are different requirements for demonstrating continuous compliance with the work practice standards, depending on which standards are applicable to a given affected source. To ensure that the control equipment used to meet an applicable work practice standard is properly operated and maintained, the final rule requires that you periodically inspect and monitor this equipment.

I. What Are the Notification, Recordkeeping, and Reporting Requirements?

The final rule requires that you keep records and file reports consistent with the notification, recordkeeping, and reporting requirements in 40 CFR part 63, subpart A. Two basic types of reports are required: initial notification and semiannual compliance reports. The initial notification report advises the regulatory authority of applicability for existing sources or of construction for new sources.

The initial compliance report demonstrates that compliance has been achieved. This report contains the results of the initial performance test or design evaluation, which includes the determination of the reference operating parameter values or range and a list of the processes and equipment subject to the standards. Subsequent compliance reports describe any deviations of monitored parameters from reference values; failures to comply with the startup, shutdown, and malfunction plan (SSMP) for control devices; and results of LDAR monitoring and control equipment inspections.

Records required under the proposed standards must be kept for 5 years, with at least the 2 most recent years being kept on the facility premises. These records include copies of all reports that you have submitted to the responsible authority, control equipment inspection records, and monitoring data from control devices demonstrating that operating limits are being maintained. Records from the LDAR program and storage vessel inspections, and records of startups, shutdowns, and malfunctions of each control device are needed to ensure that the controls in place are continuing to be effective.

J. What Are the Compliance Deadlines?

Each affected source associated with a site remediation is an existing source if you commenced construction or reconstruction of the source before July 30, 2002. Each affected source associated with a site remediation is a new source if you commenced construction or reconstruction of the affected source on or after July 30, 2002. An affected source is reconstructed if it meets the definition of "reconstruction" in 40 CFR 63.2.

Existing sources associated with a site remediation subject to the final Site Remediation NESHAP must comply with the final rule requirements by October 9, 2006. New sources, with the exception of those new sources managing remediation material that is a radioactive mixed waste, must be in compliance with the final rule requirements on the final rule's effective date or, if it is not yet operational, upon initial startup of the source.

Under the final Site Remediation NESHAP, remediation activities (which meet the final rule applicability criteria) that clean up radioactive mixed waste are subject to standards for treatment unit process vents and equipment leaks. If you have a new affected source that manages remediation material that is a radioactive mixed waste, and its initial startup date is on or before October 8, 2003, you must be in compliance with the final rule requirements no later than October 9, 2006. If the affected source's initial startup date is after October 8, 2003, you must be in compliance with

the final rule requirements upon initial startup.

K. How Does the "once in, always in" Policy Apply?

We explained at proposal why site remediation is a unique source category (see 67 FR 49400–49401). Because of its uniqueness, we specifically evaluated how the final Site Remediation NESHAP could be implemented within the framework of our existing policies for implementing the MACT standards promulgated under CAA section 112. Our "once in, always in" policy is that once a facility or source is subject to a MACT standard, it remains subject to that standard as long as the affected source definition or criteria are met. In the preamble to the proposed rule, we discussed our decision that the once in, always in policy should not apply to the site remediation source category for those facilities that are area sources prior to and after, but not during, the cleanup activity. We received many public comments supporting this decision. We are reiterating here how we will apply the once in, always in policy to facilities that conduct site remediations in situations where a facility is an area source prior to the remediation activity, but where addition of the potential HAP emissions from the remediation activities increases the facility's potential to emit (PTE) to levels such that the facility exceeds the 10 or 25 ton HAP thresholds for a major source.

Because the facility is then a major source of HAP, another operation at the facility, such as a manufacturing process, would be subject to NESHAP for other source categories located at their facility. Furthermore, after the remediation is completed, the facility would, in terms of potential emissions, essentially be back to where it was as an area source (assuming no change in the facility plant operations). Under the once in, always in policy, the facility would remain subject to the NESHAP that was triggered by the limited duration change of source status from area to major brought about by the increase in PTE from the site remediation activity.

In the situation described above, the once in, always in policy would create an obvious disincentive for owners or operators to engage in site remediations, particularly since voluntary remediation would be affected by the final rule. Our intent is to not adopt requirements that create incentives to avoid a cleanup or result in the selection of less desirable or less protective remediation approaches. Therefore, we have determined that the once in, always in policy does not apply where a facility's status changes from area source to major source, solely as a result of remediation activities regulated by the Site Remediation NESHAP, where the facility returns to area source status after the cleanup activity.

III. Responses to Major Comments on Proposed Rule

Our responses to all of the substantive public comments on the proposal are presented in the BID which is available in Docket No. OAR–2002–0021.

A. Why Are We Promulgating NESHAP To Regulate HAP Emissions From Site Remediation Activities?

Comment: Several commenters disagreed with our decision to establish a NESHAP regulating HAP emissions from site remediation activities. The commenters argued that such a NESHAP is not needed for several reasons: the level of HAP emissions from the sources that would be subject to the final rule is too low to warrant regulation by a NESHAP, adequate air emissions controls already are imposed at sites subject to risk assessment, and a NESHAP discourages site owners and operators from initiating and conducting voluntary cleanups.

Response: Section 112 of the CAA requires that we establish MACT standards for the control of HAP from both new and existing major sources of HAP. Section 112(a)(1) defines a "major source" as "* * * any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants. * * * " We have codified essentially this same definition into § 63.2 of the General Provisions to part 63. We have long interpreted this definition as requiring that all sources of HAP within a plant site must be aggregated, so long as the sources are geographically adjacent and under common control (see *e.g.*, 59 FR 12412, March 16, 1994). This interpretation was sustained by the court in *National Mining Ass'n* v. *EPA*, 59 F. 3d 1351, 1355–1359 (D.C. Cir. 1995). A consequence, then, is that sources of HAP which are part of a major source, but which would not themselves (viewed separately) be major sources, are still classified as major sources and are subject to the requirements of CAA section 112(c) and (d), which command us to list all categories of major sources and establish technology-based standards for those sources. The result, for purposes of site remediation activities, is that all such remediations conducted at locations which, taken as a whole are major sources, are themselves required to be controlled by MACT standards in the final rule.

We determined that there are major sources of HAP where site remediations are now being conducted or may be conducted in the future to clean up contaminated environmental media or certain stored or disposed materials that pose a reasonable potential threat to contaminate environmental media. The levels of HAP emissions from remediation activities at a given cleanup site depend on a combination of site-specific factors including the type of remediation processes used and activities conducted; the quantity, HAP composition, and other characteristics of the remediation material; and the time required to complete the cleanup. We recognize that at some cleanup sites the levels of HAP emissions from the remediation activities will be low. However, at other cleanup sites the potential level of HAP emissions from the remediation activities can be substantial and appropriate air pollution controls are needed to protect public health and the environment.

We already have established requirements under our RCRA hazardous waste corrective action and CERCLA Superfund programs which address the air emissions from certain remediation activities based largely on site-specific risk assessments. However, these requirements do not apply universally to all site remediations with the potential to emit HAP. There are site remediations not subject to these federally-enforceable requirements. To meet our congressional directive under CAA section 112, we are promulgating the final Site Remediation NESHAP applicable to those site remediations not subject to federally-enforceable requirements that will effectively control HAP emissions.

Finally, the fundamental objective of a site remediation is to mitigate a detected risk to public health or the environment by successfully completing the cleanup of media or other materials at the site that is contaminated by a hazardous substance. It is commendable when a site owner or operator voluntarily initiates and conducts a cleanup. However, the fact that a cleanup is being conducted voluntarily as opposed to being conducted to comply with a Federal or State regulatory requirement or fulfill a court directive does not obviate or excuse the use of appropriate air pollution controls to those site remediation activities with

the potential to emit substantial quantities of HAP.

B. How Did We Select the HAP To Be Regulated by the Final Rule?

Comment: Several commenters requested that we reconsider our selection of which HAP are regulated under the final rule to include metals and inorganic compounds listed as HAP. In particular, the commenters stated that beryllium and other heavy metals should be included because these HAP cause harm to public health and welfare. Other commenters supported our decision not to regulate remediation activities that emit metal HAP or other inorganic HAP. One commenter stated that the final rule should be based on a HAP list developed specifically for site remediation instead of using the list under 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.

Response: A site remediation potentially could be required at any of a wide variety of industrial facilities, manufacturing plants, waste treatment and disposal facilities, and other types of sites. Consequently, the contaminating substances at a site requiring cleanup could be any of the organic, metal, or inorganic chemicals or groups of chemicals that are listed as HAP pursuant to CAA section 112(b). However, some of these contamination substances that are also listed as HAP have no or minimal potential to be emitted to the atmosphere from the site remediation activities performed at the site to clean up the contamination (notwithstanding that metal and other inorganic HAP may be present in the material being remediated).

In developing the proposed Site Remediation NESHAP, we considered all of the HAP listed pursuant to CAA section 112(b) for regulation by the proposed rule (see 67 FR 49413). Based on the information available to us at proposal regarding the cleanup of media contaminated with metals or other inorganic HAP, many of the remediation techniques used for these cleanups do not release the metals or inorganic HAP to the atmosphere. In cases where remediation material containing a metal or inorganic HAP is burned in an incinerator or other combustion unit, the combustion unit must already meet air standards under the CAA and RCRA that limit organic, particulate matter, metals, and chloride emissions. Therefore, we concluded that metals and other inorganic compounds listed as HAP pursuant to CAA section 112(b) do not need to be regulated by the final Site Remediation NESHAP. We specifically requested comment at proposal on our conclusion. We received some additional information from commenters supporting our decision not to include any metal or inorganic HAP on our list of regulated HAP for the final Site Remediation NESHAP. We received no information from commenters to support a determination that metal or inorganic HAP are being emitted from site remediation activities. Therefore, we continue to believe that metal and other inorganic compounds HAP do not need to be addressed by the final Site Remediation NESHAP.

In selecting the organic HAP to be regulated by the final Site Remediation NESHAP, we chose at proposal to be consistent with the approach we used for under 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations as well as other NESHAP promulgated for source categories with large diversity in the organic chemical constituents present in the materials managed at any given facility. Under this approach, a specific list of pollutants is selected that reasonably ensures MACT control of the organic HAP emitted from the source. We used this approach to develop the HAP list for under 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations by evaluating each chemical or chemical group listed as a HAP in CAA section 112(b) with respect to its potential to be emitted from a waste management or recovery operation (see 59 FR 1921).

Subpart DD under 40 CFR part 63 does not apply to OSWRO sources managing wastes received from site remediations. However, the data base that we used to select the list of HAP for subpart DD under 40 CFR part 63 included remediation wastes sent to hazardous waste TSDF. We concluded that this data base is also representative of the range of organic HAP chemicals having the potential to be emitted from the sites requiring cleanup of media contaminated with volatile or semi-volatile organics and other remediation material. Therefore, we proposed that same list of organic HAP used for the subpart DD under 40 CFR part 63 also be used for the final Site Remediation NESHAP. We requested comment at proposal regarding the use of this list of organic HAP for the final Site Remediation NESHAP. We received no new data from commenters, and have not ourselves found additional data since proposal to cause us to alter our conclusion. These data are the best information available representative of the range of organic HAP chemicals having the potential to be emitted from site remediation activities, and that it is most appropriate to use also the HAP list from subpart DD under 40 CFR part 63 for the Site Remediation NESHAP.

When we developed the HAP list for subpart DD under 40 CFR part 63, we evaluated each organic chemical or chemical group listed as a HAP in CAA section 112(b) with respect to its potential to be emitted from a waste management or recovery operation (see 59 FR 51921). The criteria used to characterize and evaluate emission potential was based on a chemical constituent's Henry's law constant, evaluation of the aqueous and organic volatility characteristics of the chemical, and the ability of the analytical test methods to quantitate the chemical. Based on our evaluation, we developed the list of specific organic HAP compounds or compound groups to be regulated under the final rule (Table 1 in subpart DD under 40 CFR part 63). We later decided to delete eight chemicals from our initial list because we concluded that there is low potential for these compounds to be emitted from OSWRO (see 61 FR 34153). Dimethyl hydrazine was one of the eight compounds we removed from the list. Table 1 in the proposed Site Remediation NESHAP inadvertently included dimethyl hydrazine as one of the regulated HAP. We have corrected Table 1 in the final Site Remediation NESHAP to accurately reflect our intent by deleting dimethyl hydrazine from the list.

C. How Do We Define Site Remediation in the Final Rule?

Comment: Commenters expressed the concern that, as proposed, the final rule applicability provisions are unclear and circular. Several commenters requested that we clearly define the term "remediation" or the remediation activities subject to the final rule. Commenters also stated that routine waste management activities (*e.g.*, tank clean-outs, removing spent catalyst from reactors, cleaning heat exchangers and other piping, etc.) are not site remediation activities and should be distinguished from site remediation activities subject to the final rule.

Response: We have written the regulatory language in the applicability section of the final rule to clarify our intent as to what is a site remediation for the purpose of implementing the Site Remediation NESHAP. The basis for all of our revisions to the proposed rule is consistency with our intent that the

final rule address HAP emissions from activities to clean up environmental media contaminated with HAP as well as clean up certain stored or disposed materials at a site that contain HAP and pose a reasonable potential threat to contaminating environmental media. It was never our intention that the final rule be interpreted to apply to activities at a facility required for management of waste generated by routine equipment maintenance activities or other types of activities necessary to continue day-to-day operations at a facility.

D. Why Does the Final Rule Not Apply to CERCLA Superfund and RCRA Corrective Action Cleanups?

Comment: We received comments supporting our proposal that site remediations conducted for CERCLA Superfund and RCRA corrective action cleanups not be subject to the final Site Remediation NESHAP. These commenters believe that these RCRA and CERCLA cleanup programs do have appropriate provisions which provide for the protection of public health and the environment from air pollutants emitted from site remediation activities on a site-specific basis. Other commenters opposed the exclusion of these site remediations from being subject to the final Site Remediation NESHAP because they assert that neither of the RCRA and CERCLA programs have air emission standards for site remediation activities and that the requirement of CAA section 112 is to establish NESHAP for HAP emissions from these activities. Among other things, such control could address any regulatory gaps in RCRA and CERCLA requirements.

Response: The RCRA hazardous waste corrective action and CERCLA Superfund programs do not establish national air standards for site remediations. These programs, however, do have provisions which provide for the protection of public health and the environment from air pollutants emitted from these activities on a site-specific basis. As we stated at proposal, the established Federal requirements provide an appropriate and effective regulatory approach to address air emissions from those remediation activities performed under CERCLA authority as a remedial action or a non-time critical removal action, or under RCRA authority at permitted or Federal Order RCRA corrective action sites.

The Superfund program is designed to protect public health and the environment while providing the flexibility to use effective and innovative remediation approaches that best suit the site-specific conditions at each CERCLA site (CERCLA section 121). The Superfund program conducts extensive evaluation of the contamination at each CERCLA site (see 40 CFR 300.430). As part of the evaluation process, a decision document (*i.e.*, Record of Decision (ROD)) is developed for response actions, documenting the extent of contamination and the cleanup method(s) to be used at the site. Under this process, a site-specific analysis, considering the impacts to air, soil and groundwater, is conducted and an appropriate remedy is selected. During the ROD process, the general public is given the opportunity for input in the decision-making process through public hearings and submission of written comments. The public plays an important role in identifying and characterizing site-specific factors, such as the type of contaminants, the level and extent of contamination and other site-specific factors. We believe this procedure results in selection of the best plan for cleaning up each site and achieving the program's goals.

As implemented under the requirements of RCRA, hazardous waste treatment, storage and disposal facilities must obtain a permit specifying requirements for managing hazardous waste. As a condition of obtaining this permit, facilities are required to undertake corrective action addressing releases of hazardous waste and hazardous constituents from units at the facility which do not themselves require RCRA permits (solid waste management units) (RCRA section 3004(u)). For such designated contamination areas at TSDF, requirements for the cleanup of the contamination are included in the facility's RCRA permit, or Federal Order where applicable. Such cleanup activities are known as "corrective actions." Although RCRA is a separate program from Superfund, the RCRA permitting or Federal Order process for TSDF share several significant characteristics with Superfund cleanup activities at CERCLA sites. First, it is also the intent of the RCRA corrective action program to protect public health and the environment while allowing flexibility in choosing solutions to eliminate or reduce site contamination. Second, RCRA permitting and Federal Order procedures involve the public in the decision-making process through informal public meetings, public hearings or written comment. Finally, an extensive site-specific evaluation is performed at the RCRA facility to evaluate the extent of the contamination, while considering appropriate remedies through a multi-media (*i.e.*, air, soil, groundwater) perspective (see 67 FR 49406 for additional explanation).

E. Why Does the Final Rule Potentially Apply to State and Voluntary Cleanup Programs?

Comment: Many commenters requested that in addition to CERCLA Superfund and RCRA corrective action cleanups, that other cleanups conducted under Federal or State oversight not be subject to the final rule, where such cleanups are conducted following CERCLA or RCRA requirements. The commenters argued that these cleanups conducted under State Superfund, Brownfield, voluntary cleanup, or other similar programs are subject to emissions controls and requirements that are substantially similar to those in the CERCLA or RCRA programs.

Response: The final Site Remediation NESHAP applies only to site remediations that meet the three applicability conditions specified in the final rule. We have determined that site remediations at those sites that meet these applicability conditions warrant the implementation of air pollution controls to reduce the emission of organic HAP to the atmosphere. As discussed in our previous response, we are exempting from the final rule requirements those sites that meet the final rule applicability conditions where the site remediations are conducted for CERCLA (Superfund) or RCRA corrective action cleanups. This includes the site remediations in one of 39 States that the EPA has authorized to oversee cleanups at TSDF under RCRA corrective action. Site remediations administered under these federally-enforceable programs address the organic HAP emissions from the site remediations on a site-specific basis.

The overall objective of any site remediation, whether it be a Federal required, State required, or voluntary cleanup, is to remove the threat to human health and the environment posed by the presence of hazardous substances in the contaminated media and wastes that can potentially contaminate the media at the site. However, the actions taken at a given contamination site that remove the hazardous substances from water or soil by transferring those substances to the air is not in the best interest of protecting human health and the environment from exposure to these hazardous substances. Unlike CERCLA or RCRA corrective action cleanups, State regulatory and voluntary cleanup programs are not uniform on a national basis, any requirements imposed on a given site remediation are not federally-

enforceable by the EPA, and the programs may not specifically address site remediation air emissions. For these reasons, we cannot view these activities as the functional equivalent of MACT, and, therefore, we cannot justify extending the same exemption we provide for CERCLA Superfund or RCRA corrective action cleanups to site remediations conducted for State regulatory and voluntary cleanup programs. Therefore, we are maintaining the applicability of the final rule to those site remediations conducted for State regulatory and voluntary cleanup programs where the site remediation meets the applicability conditions specified in the final rule.

F. How Does the Final Rule Apply to Cleanups of Leaking Underground Storage Tanks?

Comment: Many commenters agreed with the decision to modify the site remediation source category listing to exclude remediation activities at leaking underground storage tanks (UST) located at gasoline service stations. However, commenters argued that because the types, sizes and purpose of UST used for the storage of motor fuels or heating oils at all types of commercial and industrial properties are comparable to those located at gasoline service stations, then remediation activities associated with any UST contamination cleanups regardless of location also should not be subject to the Site Remediation NESHAP.

Response: The rationale for our decision to modify description for the site remediation source category to exclude remediation activities from leaking UST located at gasoline service stations is based on our estimates of the total HAP emissions from a typical cleanup of contamination from the size and types of underground tanks commonly used at gasoline service station sites. These estimates indicate that the level of HAP emissions from these sites would be significantly below the major source threshold levels (*i.e.*, less than 10 tpy of a single HAP or 25 tpy of all HAP) (see 67 FR 49400). Gasoline service station sites are area sources. Site remediation was listed as a source category for MACT standard development to address HAP emissions at major sources where remediation technologies and practices also are used at the site to clean up contaminated environmental media (*e.g.*, soils, groundwaters, or surface waters) or other materials that pose a reasonable potential threat to contaminate environmental media. Our decision was not based on a determination that UST contamination cleanups regardless of location should not be included in the site remediation source category. Therefore, we believe that if a leaking UST cleanup is conducted at a major source site then it is appropriate (and indeed mandated) to require the cleanup activities comply with the final Site Remediation NESHAP requirements.

G. How Does the Final Rule Apply to Cleanups of Radioactive Mixed Waste?

Comment: Six commenters opposed the proposal that any site remediation involving the cleanup of radioactive mixed waste not be subject to the Site Remediation NESHAP. These commenters argued that the existing Federal regulations for mixed waste are not adequately addressing the HAP emissions from remediation activities at existing facilities managing these types of wastes. Two commenters expressed support for the proposal because they believe that mixed wastes are already appropriately and protectively managed under the Atomic Energy Act and Nuclear Waste Policy Act.

Response: Radioactive mixed wastes (RMW) are wastes that contain radioactive materials as well as wastes listed or identified as hazardous under RCRA. Radioactive mixed wastes must be managed according to RCRA subtitle C regulations. In addition, these wastes are subject to standards administered by the Nuclear Regulatory Commission (NRC) under the Atomic Energy Act (AEA) and Nuclear Waste Policy Act (NWPA) of 1982 that address the safe handling and disposal of radioactive waste.

In developing the air standards under CAA authority for stationary sources that potentially may manage wastes also subject to requirements under other legislative authorities, we consider the management practices required for these wastes to avoid inconsistencies between any CAA requirements that might be established and existing requirements under the other applicable authorities. We reviewed the special nature of existing requirements for managing radioactive mixed wastes with respect to requirements for the control of organic HAP emissions we proposed to establish under the final Site Remediation NESHAP. In certain cases, the air pollution controls used as the basis for the standards under the final Site Remediation NESHAP are not compatible with the NRC requirements for safe handling of radioactive mixed wastes. For example, drums used to store radioactive mixed waste cannot be sealed with vapor leak-tight covers because of unacceptable pressure buildup of hydrogen gas to levels that can potentially cause rupture of the drum or create a potentially serious explosion hazard (a hazard which, by any commonsense measure, exceeds risk posed by emission of organic HAP). (See Air Docket ID No. OAR–2002–0021; see also S. Rep. No 228, 101st Cong. 1st sess. at 168 ("* * * In cases where control strategies for two or more different pollutants are in actual conflict, the Administrator shall apply the same principle—maximum protection of human health shall be the objective test. * * *").)

The generation of hydrogen gas is a result of the radiolytic decomposition of organic compounds (*i.e.*, plastics) and/or aqueous solutions within the container. Plastics are commonly used as a barrier to alpha radiation both in handling operations and in waste packaging. Over time, the alpha particle causes the hydrolysis of chemical bonds within the plastic material which results in the release of hydrogen gas. Likewise, hydrolysis of aqueous solutions will yield hydrogen. Additionally, radiation-induced degradation and biodegradation of organic low-exchange resin waste, which are also RMW, generated during water treatment at nuclear facilities, can result in the production of gaseous products (*i.e.*, hydrogen and carbon dioxide) which in turn can result in pressure buildup and failure of the container. Consequently, a drum used for storage of radioactive mixed wastes must be continuously vented through special filters in accordance with technical guidance issued by the NRC to prevent the hydrogen concentration in the drum from reaching dangerous levels. Because of pressure build-up inside the container, a vent for gaseous compounds is necessary to prevent failure of a high-integrity container (*i.e.*, vent designs incorporated into high integrity containers restrict the release of radionuclides from the container into the environment while allowing the gas to be vented). (See RCRA Docket Items F–91–CESP–00046 and F–94–CESF–S0001, which are part of the administrative record for the final rule.)

In accordance with the Waste Isolation Pilot Plant (WIPP), Carlsbad, New Mexico, Waste Acceptance Plan (WAP), wastes that are to be shipped to the WIPP must be in containers that are vented to prevent the buildup of pressure. The container vents must be filtered to ensure that no radioactive waste components are released. For example, the Hazardous Waste Permit for the WIPP, dated November 25, 2002, in section M1–1d describing container management practices states on page M1–8 "* * * Because containers at the WIPP will contain radioactive waste,

safety concerns require that containers be continuously vented to obviate the buildup of gases within the container. These gases could result from radiolysis, which is the breakdown of moisture by radiation. The vents, which are nominally 0.75 in. (1.9 centimeters) in diameter, are generally installed on or near the lids of the containers. These vents are filtered so that gas can escape while particulates are retained. * * *" In addition, the permit in the section describing the requirements for the standard transuranic mixed waste drums states on page M1–2, "* * * One or more filtered vents (as described in section M1–1d) will be installed in the drum lid to prevent the escape of any radioactive particulates and to eliminate any potential of pressurization. * * *"

To comply with these requirements, the drum lid is punctured to release any buildup of potentially explosive hydrogen gas and a specially-designed, carbon composite membrane filter vent is attached. The function of this filter vent is to retain radionuclides inside a container while allowing hydrogen and other gases (*e.g.*, VOC) to pass through to the atmosphere. In particular, the carbon composite membrane used in the filter vent does not inhibit the passing of VOC from the container into the atmosphere.

Because it was judged an unsafe practice to store RMW drums and other containers with tight covers, and because the WIPP Waste Analysis Plan requires that containers be vented for shipment to the WIPP, we determined that many Department of Energy facilities may be unable to meet the tight cover control device criteria for containers as specified in the proposed Site Remediation NESHAP. In addition, we were unable to determine, if there were any available technologies that could be applied to the RMW containers that would control organic air emissions in a safe and cost-effective manner while also complying with WIPP and other AEA and NWPA requirements.

Information gathered and reviewed following proposal of the Site Remediation NESHAP does not indicate that the situation regarding the safety issue related to storage of RMW has changed since proposal. The potentially conflicting requirements for containers (and other storage units) to be vented under one set of rules versus the requirements for closed, tight fitting covers under the CAA rules remains to be resolved. We are not aware of any available device to control organic air emissions (such as an activated carbon filter) that can be used in combination with the carbon composite membrane filter vent on a RMW container. No available technologies have been identified that could be applied to the RMW containers that would control organic air emissions in a safe and cost-effective manner while also complying with WIPP and other AEA and NWPA requirements. With no known controls in place on these sources, the MACT floor for RMW sources (*e.g.*, RMW containers) appears to be no control beyond that already provided by the NRC and other applicable regulations. Codifying the same level of control already established under another regulatory authority as a MACT standard seems a needless expenditure of resources since it would not change existing practice or otherwise provide benefits not already provided by the existing regulations. Therefore, we have retained in the final rule an exemption from the air pollution control requirements under the final Site Remediation NESHAP for remediation material management units (*e.g.*, tanks, containers, and surface impoundments) managing RMW.

Although the technical information and data we have collected support inclusion of an exemption for remediation material management units managing RMW from the air pollution control requirements under the final Site Remediation NESHAP, we concluded from our review of this information that this is not the case for site remediation treatment process vents and equipment leaks. The technical and safety concerns for the required controls for organic emissions from containers and tanks managing RMW are not an issue with the controls required by the final Site Remediation NESHAP for treatment unit process vents and equipment leaks if applied to remediation material streams that are classified as RMW. We have not identified any conflicting regulatory requirements that would preclude the use of air pollution controls on these sources as is the case with tanks and containers. Also, since 1990, remediation material streams classified as RMW have been subject to, and in compliance with, the air pollution control requirements in the national air standards we promulgated under RCRA authority to control total organic emissions from hazardous waste TSDF treatment process vents (subpart AA in 40 CFR parts 264 and 265) and equipment leaks (subpart BB in 40 CFR parts 264 and 265). The air pollution control requirements under these RCRA air rules are the same as the requirements for site remediation treatment process vents and equipment leaks included in the final Site Remediation NESHAP. With demonstrated controls in place on these treatment unit and equipment component sources, MACT for these RMW sources (*i.e.*, process vents and equipment leaks) would be established at the control levels required under those rules. Because the technical issues related to safety concerns for RMW containers and other storage units do not apply to treatment unit process vents and equipment leaks, we have written the final Site Remediation NESHAP to limit the exemption to only remediation material management units managing RMW. Remediation activities involving the cleanup of RMW that meet the final rule applicability criteria are subject to standards for treatment unit process vents and equipment leaks under the final Site Remediation NESHAP.

H. How Does the Final Rule Apply to Short-Term Site Remediations at Affected Facilities?

Comment: Commenters supported our proposal to exempt short-term cleanups from being subject to the emissions limitations and work practice standards but requested longer allowable cleanup intervals. Commenters argued that the proposed 7-day initiation period from the time the contamination occurs and 30-day cleanup period are too short because they do not account for circumstances beyond the control of an owner or operator which may delay discovery of the contamination or completing the cleanup within 30 days.

Response: We reviewed our proposed regulatory language for the exemption and concluded that the proposal does not accurately reflect our intent. Therefore, we have written in the final rule the approach we use to implement the exemption. This approach preserves our original intent as to which site remediations warrant exemption as well as addresses the concerns raised by commenters regarding the situations when a short-term site remediation takes longer to complete than initially planned and extends beyond the allowable time interval because of circumstances beyond their control.

The purpose of the final Site Remediation NESHAP is to control organic HAP emissions released to the atmosphere during site remediations. Organic HAP emissions from in-situ treatment processes primarily occur when an air or gas stream from the remediation process is exhausted to the atmosphere. Organic HAP emissions can be released from extraction or excavation of contaminated material and the subsequent handling, treatment, and disposal of these materials. The

emissions do not occur prior to the time that these remediation activities actually start.

We recognize that activities necessary to plan, arrange, and schedule the site remediation may take more than 30 days. Also, we recognize that there may be delays in starting the site remediation due to circumstances beyond the control of a site owner or operator such as waiting for necessary permit approvals from a State or local agency, or scheduling of personnel or equipment contracted to complete the cleanup work.

Furthermore, a site remediation does not occur until a source of actual or potential hazardous substance contamination is discovered. In many cases, when the contamination is discovered may not be the same time that the contamination occurs. For example, the new owner or operator of a site may discover a contaminated source requiring remediation that occurred years earlier due to improper practices of the previous site owner. We recognize that in many situations it is difficult, if not impossible, for facility owners and operators, as well as enforcement personnel, to verify whether a given site remediation is initiated within 7 days of the contamination occurring. Therefore, we decided to eliminate any conditional requirements for the exemption related to when the contamination occurred. Instead, it is more appropriate and practical to base the time limit for the short-term exemption on the period that the on site work is performed for those activities with the actual potential to emit HAP.

For the final Site Remediation NESHAP, we adopted the approach of exempting short-term site remediations that can be completed within a given number of consecutive calendar days as determined from the day that any action is first initiated that removes, destroys, degrades, transforms, immobilizes, or otherwise manages the remediation materials. In adopting this approach, we exclude those activities that need to be completed to perform a site remediation but are not responsible for the generation of HAP emissions from site remediations, namely: activities required to characterize the type and extent of the contamination by collecting and analyzing samples, to obtain any permits required by State or local authorities to conduct the site remediation, to schedule workers and necessary equipment, and to arrange for any contractor assistance in performing the site remediation.

Given our revised regulatory approach for the short-term site remediation exemption, we re-evaluated the maximum time interval appropriate for the exemption. We proposed a maximum time interval of 30 days for the exemption. This proposed time interval included time to complete those sampling, planning, and scheduling activities that needed to perform a site remediation but are not part of the physical activities which cause HAP to be emitted at the cleanup site. Under the final rule, the exemption is based on the time interval required to complete only those remediation activities that actually emit or have a potential to emit HAP. We believe that the physical part of the site remediations we intend for this exemption to apply can reasonably be completed within a period much shorter than 30 days (*e.g.*, 1 week, 14 days). However, there are situations where a remediation at a particular site which normally should be completed within these shorter periods cannot be due to factors beyond the control of the owner or operator that curtail or delay the remediation activities (such as severe weather or machinery breakdowns). Therefore, we decided that selecting a maximum time interval of 30 days for the exemption will allow a sufficient period to complete the types of cleanups we intend for this exemption to apply to and to provide a reasonable amount of leeway to account for any unforeseen circumstances that may develop at a site.

Finally, it is our intention that the short-term exemption only be applicable to those site remediations for which the cleanup of the entire contaminated area at the site can be completed within 30 consecutive days. The exemption is not intended to be used for longer term cleanups of contaminated areas whereby the remediation activities at the site are started, stopped, and then re-started in a series of intervals with durations less than 30 days per interval for which the total time of all of the intervals required to complete the site remediation exceeds a total of 30 days.

I. How Does the Final Rule Apply to Remediation Materials Sent Off-Site From Affected Facilities?

Comment: Commenters opposed the proposed rule requirements on the transfer of remediation material to another party or site. The commenters asserted that proposed requirements are unnecessarily burdensome on both the shipping and receiving parties. Furthermore, requiring owners and operators to submit a written certification of intent to comply with the final rule adds paperwork with little or no environmental or health benefit. The requirements also have the potential to be an especially burdensome task for the off-site facility that are now an area source.

Response: The objective of a site remediation is to mitigate a detected risk to public health or the environment by successfully completing the cleanup of an area contaminated by a hazardous substance. At many remediation sites, the contaminated material is excavated or extracted and then shipped to another site for treatment or disposal. Simply moving contaminated material containing organic HAP from the cleanup site to another site across town or in another community does not address the potential for these HAP to be emitted to the air and, subsequently, pose a risk to public health or the environment. It merely transfers the risk to another locale. Nor does such a practice reflect the maximum emission reduction achievable, as required by CAA section 112(d)(2) and (3). Thus, there is a need to ensure that those remediation materials with the potential to emit organic HAP are managed and treated in units using appropriate air pollution controls regardless of where those units are located. To address this need, we are including in the final Site Remediation NESHAP the requirement that remediation material transferred to another party or shipped to another facility must be managed according to the air pollution control requirements specified in the final rule.

We believe that the transfer provision under the final Site Remediation NESHAP does not establish requirements that are burdensome on either the remediation material shipping or receiving parties. We expect that, for many of those situations where a remediation material is subject to the off-site transfer requirements under the final rule, the material will be sent to a facility that is already complying with subpart DD in 40 CFR part 63 or a hazardous waste TSDF already complying with the RCRA air standards under subparts AA, BB, and CC of 40 CFR part 264 or 265. The air pollution control requirements under subpart DD in 40 CFR part 63 and RCRA TSDF air rules are effectively the same as those required under the final Site Remediation NESHAP. Consequently, it is likely that many, if not all, of the sites receiving the types of remediation materials subject to the off-site transfer requirements will already be using the necessary air pollution controls to comply with these other CAA and RCRA air rules. Thus, the off-site transfer requirements in the final Site Remediation NESHAP should not impose a need for these sites to

purchase and install new air pollution controls.

While off-site waste and recovery operations and hazardous waste TSDF already should be properly equipped to receive and manage remediation materials from cleanup sites subject to the final Site Remediation NESHAP, there are no existing rules requiring all owners and operators performing cleanups of contaminated materials containing organic HAP to ship the remediation materials to such facilities. It is possible that there are special circumstances where remediation material is transferred to a facility other than a facility subject to subpart DD under 40 CFR part 63 or a hazardous waste TSDF. We also must address the potential for circumvention of the final rule's purpose at a site where the remediation material is simply excavated or extracted and then intentionally transferred outside the site's legal boundaries to avoid having to use air pollution controls. Thus, the level of control reflecting MACT provided by subpart DD under 40 CFR part 63 (and the corresponding RCRA subtitle C rules for air emissions) is not necessarily being provided for all remediation waste transfer operations, so a MACT standard would not merely duplicate existing regulatory requirements. In those cases where an off-site facility is receiving remediation material subject to regulation by the final Site Remediation NESHAP, but units at the facility currently are not using the air pollution controls required by the final Site Remediation NESHAP, the facility owner or operator has the option of declining to accept the remediation material from the cleanup site or installing the required air pollution controls on just those units that manage the remediation material.

While it is essential that the off-site transfer provision be included in the final Site Remediation NESHAP to ensure remediation materials from cleanup sites subject to the final rule are managed and treated in units using appropriate air pollution controls regardless of the units' location, we have reviewed the proposed recordkeeping, certification, and notification requirements associated with the off-site transfer provision. We can simplify the administrative requirements for the facility owners and operators and still effectively implement and enforce the off-site transfer provision. Therefore, we have written the final rule to simplify the recordkeeping and certification requirements for both owners and operators of facilities shipping as well as receiving the remediation materials.

Finally, the off-site transfer provision is not intended to trigger a title V permitting requirement for the owner or operator of a facility that currently is an area source. To address this situation, we have added in the final rule an explicit provision stating that the acceptance by a facility owner or operator of remediation material from remediation site subject to the final Site Remediation NESHAP does not, by itself, require the facility owner or operator to obtain a title V permit.

IV. Summary of Environmental, Energy, and Economic Impacts

We prepared estimates of the environmental, energy, and economic impacts for the proposed rule based on the best information available to us including remediation waste quantity and treatment practice data for the year 1997 and earlier. No new information or data applicable to the impact estimates were provided by commenters on the proposed rule. Since proposal we have reviewed our data sources to determine the availability of additional information to update and supplement our original database used for the impact estimates. We concluded that our original database remains the best available source of information available to us for estimating impacts for the final rule.

Furthermore, the changes made since proposal for the final rule do not change any of the assumptions we made for our original impact estimates. Therefore, our impact estimates for the proposed rule remain valid and applicable for the final rule. These impact estimates are summarized below.

A. What Are the Air Emission Impacts?

We estimated nationwide organic HAP emissions from the site remediations potentially subject to the final rule to be approximately 1,140 Mg/yr. Nationwide VOC emissions from regulated sources are estimated to be approximately 7,360 Mg/yr. (Although not all VOC are organic HAP, we may permissibly note the air benefits from controlling non-HAP pollutants such as VOC when considering a MACT standard. See S. Rep. 101–228, 101st Cong. 1st sess. 172). We estimate that implementation of the final rule will reduce these nationwide air emissions by approximately 50 percent to 570 Mg/yr of HAP and 3,680 Mg/yr of VOC.

B. What Are the Cost Impacts?

The nationwide total capital investment cost and the annual operating cost of the control equipment required to comply with the final rule are estimated to be approximately $18 million and $6 million per year, respectively. When fully implemented, the final rule is estimated to result in a total annual cost of approximately $9 million per year.

C. What Are the Economic Impacts?

The final rule will affect certain owners and operators of facilities that are major sources of HAP emissions and at which a site remediation is conducted to clean up soils, groundwaters, surface waters, or certain other materials contaminated with one or more of the organic HAP listed in the final rule. Because of the nature of activities regulated by the source category, a comprehensive list of NAICS codes cannot be compiled for businesses or facilities potentially regulated by the final rule. As a result, the economic impact analyses focused on a set of industries from the 1997 Biennial Reporting System (BRS) database that were known to be large quantity generators of hazardous waste and who were remediating hazardous waste as part of a site remediation. The data provides an adequate overview of the potential impacts of the final rule. However, we recognize that the actual industries directly impacted by the final rule in the year the final rule is implemented and the costs incurred by these industries may differ somewhat from the set of industries identified in the 1997 BRS data and the costs assigned to these industries for the purposes of the economic analysis.

In general, we did not find evidence of significant impacts at the industry level. From the BRS data, over 80 industries were predicted to have annual compliance costs as a result of the final rule, and 15 industries accounted for 91 percent of the national compliance cost estimate. We used an engineering or financial analysis to estimate impacts, which takes the form of the ratio of compliance costs to the value of sales (cost-to-sales ratio (CSR)). We calculated CSR for 12 industries and found all had CSR below 0.02 percent. The CSR are less than the lower quartile return on sales for all industries with profitability data available. We did not compute CSR for the remaining three industries because revenue data were not available.

The CSR will likely overstate the impact on firms and understate the impact on consumers. The CSR assumes that there are no changes in the market as a result of the higher costs of production faced by the firms and that the firms continue to produce the same quantities, sell at the same price and absorb the full amount of the compliance costs.

Small business impacts were particularly difficult to assess because of the uncertainty over the facilities that actually will be impacted by the final rule. As a result, we concluded that sufficient data and related information did not exist to conduct a small business screening analysis.

D. What Are the Non-Air Health, Environmental and Energy Impacts?

Compliance with the standards in the final rule requires using types of control equipment commonly in use to control organic emissions from process sources at many of the industrial facilities at which site remediations are most likely to occur. The non-air environmental and energy impacts associated with implementing the requirements of the final rule primarily are expected to result from the operation of these control devices. No significant adverse water, solid waste, or energy impacts are expected as a result of the final rule.

V. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the EPA must determine whether the regulatory action is "significant" and, therefore, subject to review by the Office of Management and Budget (OMB) and the requirements of the Executive Order. The Executive Order defines a "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlement, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

It has been determined that the final rule is not a "significant regulatory action" under the terms of Executive Order 12866, and is, therefore, not subject to OMB review.

B. Paperwork Reduction Act

The information collection requirements in the final rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The information collection requirements are not enforceable until OMB approves them.

The information to be collected for the final Site Remediation NESHAP are based on notification, recordkeeping, and reporting requirements in the NESHAP General Provisions in 40 CFR part 63, subpart A), which are mandatory for all operators subject to national emission standards. These recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414). All information submitted to the EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to EPA policies set forth in 40 CFR part 2, subpart B.

The final rule requires maintenance inspections of the control devices but would not require any notifications or reports beyond those required by the General Provisions in subpart A to 40 CFR part 63. The recordkeeping requirements require only the specific information needed to determine compliance.

The annual projected burden for this information collection to owners and operators of affected sources subject to the final rule (averaged over the first 3 years after the effective date of the promulgated rule) is estimated to be 341,737 labor-hours per year, with a total annual cost of $17.7 million per year. These estimates include a one-time performance test and report (with repeat tests where needed), one-time submission of an SSMP with semiannual reports for any event when the procedures in the plan were not followed, semiannual compliance reports, maintenance inspections, notifications, and recordkeeping. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR part 9. When this ICR is approved by OMB, the Agency will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number for the approved information collection requirements contained in the final rule.

C. Regulatory Flexibility Act

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the final rule. For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administrations' regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's final rule on small entities, EPA has concluded that this action will not have a significant economic impact on a substantial number of small entities.

The final Site Remediation NESHAP sets minimum air standards under authority of the CAA to control HAP emissions to be met if a facility owner or operator conducts a site remediation subject to the final rule. The final rule places no requirement on any facility owner or operator to initiate site remediation activities. The duty for an owner or operator to conduct a site remediation is established under RCRA, CERCLA, State, or other regulatory authorities. Given that States and other parties often decide whether site remediation activities are to be conducted at a given facility, it is extremely difficult, if not impossible, for us to predict how many or what types of small entities will undertake such site remediation activities and in which cases these activities will be subject to the final Site Remediation NESHAP.

While we cannot predict the exact number or types of small entities that will be subject to the final Site Remediation NESHAP, we have structured the final rule applicability conditions and threshold levels to minimize any impacts on those small businesses that do conduct site

remediations. The final rule only applies to those site remediations conducted at a facility that is both a major source of HAP emissions (as defined in CAA section 112) and where there are other non-remediation stationary sources at the facility that meet one of the affected source definition specified for a source category which is regulated by another subpart under 40 CFR part 63. The facilities that meet these applicability conditions tend to be large businesses.

Furthermore, types of site remediations typically expected to occur at small businesses are not subject to the final Site Remediation NESHAP. For example, we specifically exclude from the final rule applicability those site remediations to clean up contamination resulting from leaking underground storage tanks at a gasoline service station, farm, or residential site (remediation activities at these sites were found not to exceed the threshold HAP emission levels required to be designated a major source). Also, we expect that the applicable thresholds for those site remediations required to use air pollution controls under the final Site Remediation NESHAP apply to few, if any, facilities that are small businesses. For example, use of air pollution controls are not required under the final rule for those site remediations that physically can be completed within 30 days or for which total quantity of organic HAP contained in the extracted remediation material is less than 1 Mg.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, the EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures by State, local, and tribal governments, in the aggregate, or by the private sector, of $100 million or more in any one year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires the EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least-burdensome alternative that achieves the objectives of the final rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows the EPA to adopt an alternative other than the least-costly, most cost-effective, or least-burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before the EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that the final rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. The maximum total annual cost of the final rule for any year has been estimated to be about $24 million. Thus, the final rule is not subject to the requirements of sections 202 and 205 of the UMRA. In addition, the EPA has determined that the final rule contains no regulatory requirements that might significantly or uniquely affect small governments because it contains no requirements that apply to such governments or impose obligations upon them. Therefore, the final rule is not subject to the requirements of section 203 of the UMRA.

E. Executive Order 13132: Federalism

Executive Order 13132 (64 FR 43255, August 10, 1999) requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

The final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. Thus, the requirements of section 6 of the Executive Order do not apply to the final rule.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175 (65 FR 67249, November 9, 2000) requires us to develop "an accountable process to ensure meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications."

We have concluded that the final Site Remediation NESHAP may have tribal implications since the types of site remediation activities subject to the final rule potentially could be conducted on tribal lands. However, we are not aware of any specific remediation activities on tribal lands presently being conducted that would be subject to the final rule. If a site remediation subject to the final rule is initiated on tribal lands in the future, it will neither impose substantial direct compliance costs on tribal governments, nor preempt Tribal law. Thus, the requirements of sections 5(b) and 5(c) of the Executive Order do not apply to the final rule.

In the spirit of Executive Order 13175, and consistent with EPA policy to promote communications between EPA and tribal governments, we nonetheless made attempts to invite tribal representatives to participate in the rulemaking activities early in the process of developing the final rule to permit them to have meaningful and timely input into its development. We contacted tribal representatives and groups directly to notify them of the final rule development activity and to solicit their participation. At proposal, we specifically requested comment on the proposed rule from tribal officials. No tribal representatives requested to participate in the rulemaking process, and we received no comments on the proposed rule from any tribal government.

G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be "economically significant," as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the EPA must evaluate the environmental health or safety effects of

the planned rule on children and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The final rule is not subject to Executive Order 13045 because it is based on technology performance and not on health or safety risks. No children's risk analysis was performed because no alternative technologies exist that would provide greater stringency at a reasonable cost. Furthermore, the final rule has been determined not to be "economically significant" as defined under Executive Order 12866.

H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use

The final rule is not subject to Executive Order 13211 (66 FR 28355, May 22, 2001) because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Public Law No. 104–113; 15 U.S.C. 272 note) directs the EPA to use voluntary consensus standards in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to the Office of Management and Budget (OMB), with explanations when an agency does not use available and applicable voluntary consensus standards.

The final rule involves technical standards. The EPA cites the following standards in the final rule: EPA Methods 1, 1A, 2, 2A, 2C, 2D, 3, 4, 9, 18 (total organic HAP or total organic compounds), 21, 22, 25, 25A, 25D, 25E, 27, 305, 316 of 40 CFR part 60 appendix A, and Method 9095A in SW 846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods." Consistent with the NTTAA, the EPA conducted searches to identify voluntary consensus standards in addition to these EPA methods. No applicable voluntary consensus standards were identified for EPA Methods 1A, 2A, 2D, 9, 21, 22, 25D, 25E, 27, 305, 316, and SW 846 Method 9095A. The search and review results have been documented and are placed in the docket (Docket ID No. OAR–2002–0021) for the final rule.

The search for emissions measurement procedures identified 10 other voluntary consensus standards. The EPA determined that eight of these 10 standards identified for measuring emissions of the HAP or surrogates subject to emission standards in the final rule were impractical alternatives to EPA test methods for the purposes of the final rule. Therefore, EPA does not intend to adopt these standards for this purpose. (See Docket ID No. OAR 2002–0021.)

Sections 63.7940 through 63.7944 to the final Site Remediation NESHAP specify the EPA testing methods to be used for demonstrating compliance with the final rule requirements. Under §§ 63.7(f) and 63.8(f) of subpart A of the General Provisions, a source may apply to EPA for permission to use alternative test methods or alternative monitoring requirements in place of any of the EPA testing methods, performance specifications, or procedures.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing the final rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the final rule in the **Federal Register**. The final rule is not a "major rule" as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 63

Environmental protection, Air pollution control, Hazardous substances, Reporting and recordkeeping requirements.

Dated: August 20, 2003.

Marianne Lamont Horinko,

Acting Administrator.

■ For the reasons stated in the preamble, title 40, chapter I, part 63, of the Code of the Federal Regulations is amended as follows:

PART 63—[AMENDED]

■ 1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

■ 2. Part 63 is amended by adding subpart GGGGG to read as follows:

Subpart GGGGG—National Emission Standards for Hazardous Air Pollutants: Site Remediation

Sec.

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What This Subpart Covers

§ 63.7880 What is the purpose of this subpart?

This subpart establishes national emissions limitations and work practice standards for hazardous air pollutants (HAP) emitted from site remediation activities. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emissions limitations and work practice standards.

§ 63.7881 Am I subject to this subpart?

(a) This subpart applies to you if you own or operate a facility at which you conduct a site remediation, as defined in § 63.7957; and this site remediation, unless exempted under paragraph (b) or (c) of this section, meets all three of the following conditions specified in paragraphs (a)(1) through (3) of this section.

(1) Your site remediation cleans up a remediation material, as defined in § 63.7957.

(2) Your site remediation is co-located at your facility with one or more other stationary sources that emit HAP and meet an affected source definition specified for a source category that is regulated by another subpart under 40 CFR part 63. This condition applies regardless whether or not the affected stationary source(s) at your facility is subject to the standards under the applicable subpart(s).

(3) Your facility is a major source of HAP as defined in § 63.2. A major source emits or has the potential to emit any single HAP at the rate of 10 tons (9.07 megagrams) or more per year of any HAP or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year. All emissions of HAP from every source at your facility (i.e., both the site remediation activity and all other facility activities) must be considered in making this calculation.

(b) You are not subject to this subpart if your site remediation qualifies for any of one of the exemptions listed in paragraphs (b)(1) through (6) of this section.

(1) Your site remediation is not subject to this subpart if the site remediation only cleans up material that does not contain any of the HAP listed in Table 1 of this subpart.

(2) Your site remediation is not subject to this subpart if the site remediation will be performed under the authority of the Comprehensive Environmental Response and Compensation Liability Act (CERCLA) as a remedial action or a non time-critical removal action.

(3) Your site remediation is not subject to this subpart if the site

remediation will be performed under a Resource Conservation and Recovery Act (RCRA) corrective action conducted at a treatment, storage and disposal facility (TSDF) that is either required by your permit issued by either the U.S. Environmental Protection Agency (EPA) or a State program authorized by the EPA under RCRA section 3006; required by orders authorized under RCRA; or required by orders authorized under RCRA section 7003.

(4) Your site remediation is not subject to this subpart if the site remediation is conducted at a gasoline service station to clean up remediation material from a leaking underground storage tank.

(5) Your site remediation is not subject to this subpart if the site remediation is conducted at a farm or residential site.

(6) Your site remediation is not subject to this subpart if the site remediation is conducted at a research and development facility that meets the requirements under Clean Air Act (CAA) section 112(c)(7).

(c) Your site remediation is not subject to this subpart, except for the recordkeeping requirements specified in this paragraph, if the site remediation meets the all of the conditions in paragraphs (c)(1) through (3) of this section.

(1) Before beginning the site remediation, you determine for the remediation material that you will excavate, extract, pump, or otherwise remove during your site remediation that the total quantity of the HAP listed in Table 1 of this subpart which is contained in the material is less than 1 megagram per year (Mg/yr).

(2) You prepare and maintain at your facility written documentation to support your determination of the total HAP quantity used to demonstrate compliance with paragraph (c)(1) of this section. This documentation must include a description of your methodology and data you used for determining the total HAP content of the material.

(3) This exemption may be applied to more than one site remediation at your facility provided that the total quantity of the HAP listed in Table 1 of this subpart for all of your site remediations exempted under this provision is less than 1 Mg/yr.

(d) Your site remediation is not subject to the requirements of this subpart if all remediation activities at your facility subject to this subpart are completed and you have notified the Administrator in writing that all remediation activities subject to this subpart are completed. You must maintain records of compliance, in accordance with § 63.7953, for each remediation activity that was subject to this subpart. All future remediation activity meeting the applicability criteria in this section must comply with the requirements of this subpart.

§ 63.7882 What site remediation sources at my facility does this subpart affect?

(a) This subpart applies to each new, reconstructed, or existing affected source for your site remediation as designated by paragraphs (a)(1) through (3) of this section.

(1) *Process vents.* The affected source is the entire group of process vents associated with the in-situ and ex-situ remediation processes used at your site to remove, destroy, degrade, transform, or immobilize hazardous substances in the remediation material subject to remediation. Examples of such in-situ remediation processes include, but are not limited to, soil vapor extraction and bioremediation processes. Examples of such ex-situ remediation processes include but are not limited to, thermal desorption, bioremediation, and air stripping processes.

(2) *Remediation material management units.* Remediation material management unit means a tank, surface impoundment, container, oil-water separator, organic-water separator, or transfer system, as defined in § 63.7957, and is used at your site to manage remediation material. The affected source is the entire group of remediation material management units used for the site remediations at your site. For the purpose of this subpart, a tank or container that is also equipped with a vent that serves as a process vent, as defined in § 63.7957, is not a remediation material management unit, but instead this unit is considered to be a process vent affected source under paragraph (a)(1) of this section.

(3) *Equipment leaks.* The affected source is the entire group of equipment components (pumps, valves, etc.) used to manage remediation materials and meeting both of the conditions specified in paragraphs (a)(3)(i) and (ii) of this section. If either of these conditions do not apply to an equipment component, then that component is not part of the affected source for equipment leaks.

(i) The equipment component contains or contacts remediation material having a concentration of total HAP listed in Table 1 of this subpart equal to or greater than 10 percent by weight.

(ii) The equipment component is intended to operate for 300 hours or more during a calendar year in remediation material service, as defined in § 63.7957.

(b) Each affected source for your site is existing if you commenced construction or reconstruction of the affected source before July 30, 2002.

(c) Each affected source for your site is new if you commenced construction or reconstruction of the affected source on or after July 30, 2002. An affected source is reconstructed if it meets the definition of reconstruction in § 63.2.

§ 63.7883 When do I have to comply with this subpart?

(a) If you have an existing affected source, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you no later than October 9, 2006.

(b) If you have a new affected source that manages remediation material other than a radioactive mixed waste as defined in § 63.7957, then you must meet the compliance date specified in paragraph (b)(1) or (2) of this section, as applicable to your affected source.

(1) If the affected source's initial startup date is on or before October 8, 2003, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you by October 8, 2003.

(2) If the affected source's initial startup date is after October 8, 2003, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you upon initial startup.

(c) If you have a new affected source that manages remediation material that is a radioactive mixed waste as defined in § 63.7957, then you must meet the compliance date specified in paragraph (c)(1) or (2) of this section, as applicable to your affected source.

(1) If the affected source's initial startup date is on or before October 8, 2003, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you no later than October 9, 2006.

(2) If the affected source's initial startup date is after October 8, 2003, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you upon initial startup.

(d) If your facility is an area source that increases its emissions or its potential to emit such that it becomes a

major source of HAP as defined in § 63.2, then you must meet the compliance dates specified in paragraphs (d)(1) and (2) of this section.

(1) For each source at your facility that is a new affected source subject to this subpart, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you upon initial startup.

(2) For all other affected sources subject to this subpart, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you no later than 3 years after your facility becomes a major source.

(e) You must meet the notification requirements, according to the schedule applicable to your facility, as specified in § 63.7950 and in 40 CFR part 63, subpart A. Some of the notifications must be submitted before you are required to comply with the emissions limitations and work practice standards in this subpart.

General Standards

§ 63.7884 What are the general standards I must meet for each site remediation with affected sources?

(a) For each site remediation with affected sources designated under § 63.7882, you must meet the standards specified in §§ 63.7885 through 63.7953, as applicable to your affected sources, unless your site remediation meets the requirements for an exemption under paragraph (b) of this section.

(b) A site remediation that is completed within 30 consecutive calendar days according to the conditions in paragraphs (b)(1) and (2) of this section is not subject to the standards under paragraph (a) of this section. This exemption cannot be used for a site remediation involving the staged or intermittent cleanup of remediation material whereby the remediation activities at the site are started, stopped, and then re-started in a series of intervals with durations less than 30-days per interval for which the total time of all of the intervals required to complete the site remediation exceeds a total of 30 days.

(1) The 30-day period for a site remediation is determined from the first day that any action is initiated that removes, destroys, degrades, transforms, immobilizes, or otherwise manages the remediation materials. The end of a site remediation is determined by the last day on which treatment or disposal of the remediation materials from the cleanup is completed. The following activities, when completed before beginning this initial action, are not counted as part of the 30-day period: activities to characterize the type and extent of the contamination by collecting and analyzing samples, activities to obtain permits from Federal, State, or local authorities to conduct the site remediation, activities to schedule workers and necessary equipment, and activities to arrange for contractor or third party assistance in performing the site remediation.

(2) You must prepare and maintain at your facility written documentation describing the exempted site remediation, and listing the initiation and completion dates for the site remediation.

§ 63.7885 What are the general standards I must meet for my affected process vents?

(a) For the process vents that comprise the affected source designated under § 63.7882, you must select and meet the requirements under one of the options specified in paragraph (b) of this section.

(b) For each affected process vent, except as exempted under paragraph (c) of this section, you must meet one of the options in paragraphs (b)(1) through (3) of this section.

(1) You control HAP emissions from the affected process vents according to the standards specified in §§ 63.7890 through 63.7893.

(2) You determine for the remediation material treated or managed by the process vented through the affected process vents that the average total volatile organic hazardous air pollutant (VOHAP) concentration, as defined in § 63.7957, of this material is less than 10 parts per million by weight (ppmw). Determination of the VOHAP concentration is made using the procedures specified in § 63.7943.

(3) If the process vent is also subject to another subpart under 40 CFR part 61 or 40 CFR part 63, you control emissions of the HAP listed in Table 1 of this subpart from the affected process vent in compliance with the standards specified in the applicable subpart. This means you are complying with all applicable emissions limitations and work practice standards under the other subpart (*e.g.*, you install and operate the required air pollution controls or have implemented the required work practice to reduce HAP emissions to levels specified by the applicable subpart). This provision does not apply to any exemption of the affected source from the emissions limitations and work practice standards allowed by the other applicable subpart.

(c) A process vent that meets the exemption requirements in paragraphs (c)(1) and (2) of this section is exempted from the requirements in paragraph (b) of this section.

(1) The process vent stream exiting the process vent meets the conditions in either paragraph (c)(1)(i) or (ii) of this section.

(i) The process vent stream flow rate is less than 0.005 cubic meters per minute (m^3/min) at standard conditions (as defined in 40 CFR 63.2); or

(ii) The process vent stream flow rate is less than 6.0 m^3/min at standard conditions (as defined in 40 CFR 63.2) and the total concentration of HAP listed in Table 1 of this subpart is less than 20 parts per million by volume (ppmv).

(2) You must demonstrate that the process vent stream meets the applicable exemption conditions in paragraph (c)(1) of this section using the procedures specified in § 63.694(m). You must prepare and maintain documentation at your facility to support your determination of the process vent stream flow rate. This documentation must include identification of each process vent exempted under this paragraph and the test results used to determine the process vent stream flow rate and total HAP concentration, as applicable to the exemption conditions for your process vent. You must perform a new determination of the process vent stream flow rate and total HAP concentration, as applicable to the exemption conditions for your process vent, whenever changes to operation of the unit on which the process vent is used could cause the process vent stream conditions to exceed the maximum limits of the exemption.

§ 63.7886 What are the general standards I must meet for my affected remediation material management units?

(a) For each remediation material management unit that is part of an affected source designated by § 63.7882, you must select and meet the requirements under one of the options specified in paragraph (b) of this section except for those remediation material management units exempted under paragraph (c) or (d) of this section.

(b) For each affected remediation material management unit, you must meet one of the options in paragraphs (b)(1) through (4) of this section.

(1) You control HAP emissions from the affected remediation material management unit according to the standards specified in paragraphs (b)(1)(i) through (v) of this section, as applicable to the unit.

(i) If the remediation material management unit is a tank, then you control HAP emissions according to the standards specified in §§ 63.7895 through 63.7898.

(ii) If the remediation material management unit is a container, then you control HAP emissions according to the standards specified in §§ 63.7900 through 63.7903.

(iii) If the remediation material management unit is a surface impoundment, then you control HAP emissions according to the standards specified in §§ 63.7905 through 63.7908.

(iv) If the remediation material management unit is a oil-water or organic-water separator, then you control HAP emissions according to the standards specified in §§ 63.7910 through 63.7913.

(v) If the remediation material management unit is a transfer system, then you control HAP emissions according to the standards specified in §§ 63.7915 through 63.7918.

(2) You determine for the remediation material placed in the remediation material management unit that the average total VOHAP concentration, as defined in § 63.7957, of this material is less than 500 ppmw. Determination of the total VOHAP concentration is made based on the remediation material composition at the point-of-extraction, as defined in § 63.7957, using the procedures specified in § 63.7943.

(3) If the remediation material management unit is also subject to another subpart under 40 CFR part 61 or 40 CFR part 63, you control emissions of the HAP listed in Table 1 of this subpart from the affected remediation material management unit in compliance with the standards specified in the applicable subpart. This means you are complying with all applicable emissions limitations and work practice standards under the other subpart (*e.g.*, you install and operate the required air pollution controls or have implemented the required work practice to reduce HAP emissions to levels specified by the applicable subpart). This provision does not apply to any exemption of the affected source from the emissions limitations and work practice standards allowed by the other applicable subpart.

(4) If the remediation material management unit is an open tank or surface impoundment used for a biological treatment process, you meet the requirements as specified in paragraphs (b)(4)(i) and (ii) of this section.

(i) You demonstrate that the biological treatment process conducted in the open tank or surface impoundment meets the performance levels specified in either § 63.684(b)(4)(i) or (ii).

(ii) You monitor the biological treatment process conducted in the open tank or surface impoundment according to the requirements in § 63.684(e)(4).

(c) A remediation material management unit is exempted from the requirements in paragraph (b) of this section if this unit is used for cleanup of radioactive mixed waste, as defined in § 63.7957, that is subject to applicable regulations, directives, and other requirements under the Atomic Energy Act, the Nuclear Waste Policy Act, or the Waste Isolation Pilot Plant Land Withdrawal Act.

(d) One or a combination of remediation material management units may be exempted at your discretion from the requirements in paragraph (b) of this section provided that the total annual quantity of HAP listed in Table 1 of this subpart contained in the remediation material placed in all of the remediation material management units exempted under this paragraph is less than 1 Mg/yr. For each remediation material management unit you select to be exempted under this provision, you must meet the requirements in paragraphs (d)(1) and (2) of this section.

(1) You must designate each of the remediation material management units you are selecting to be exempted under this paragraph by either submitting to the Administrator a written notification identifying the exempt units or permanently marking the exempt units at the faculty site. If you choose to prepare and submit a written notification, this notification must include a site plan, process diagram, or other appropriate documentation identifying each of the exempt units. If you choose to permanently mark the exempt units, each exempt unit must be marked in such a manner that it can be readily identified as an exempt unit from the other remediation material management units located at the site.

(2) You must prepare an initial determination of the total annual HAP quantity in the remediation material placed in the units exempted under this paragraph. This determination is based on the total quantity of the HAP listed in Table 1 of this subpart as determined at the point where the remediation material is placed in each exempted unit. You must perform a new determination whenever the extent of changes to the quantity or composition of the remediation material placed in the exempted units could cause the total annual HAP content in the remediation material to exceed 1 Mg/yr. You must maintain documentation to support the most recent determination of the total annual HAP quantity. This documentation must include the basis and data used for determining the organic HAP content of the remediation material.

§ 63.7887 What are the general standards I must meet for my affected equipment leak sources?

You must control HAP emissions from equipment leaks from each equipment component that is part of the affected source specified in § 63.7882 by implementing leak detection and control measures according to the standards specified in §§ 63.7920 through 63.7922.

§ 63.7888 How do I implement this rule at my facility using the cross-referenced requirements in other subparts?

(a) For the purposes of this subpart, when you read the term "HAP listed in Table 1 of this subpart" in a cross-referenced section under 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations, you should refer to Table 1 of this subpart.

(b) For the purposes of this subpart, when you read the term off-site material in a cross-referenced section under 40 CFR part 63, subpart DD—National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations you should substitute the term remediation material, as defined in § 63.7957.

(c) For the purposes of this subpart, when you read the term regulated material in a cross-referenced section under 40 CFR part 63, subparts OO, PP, QQ, RR, TT, UU, WW, and VV you should substitute the term remediation material, as defined in § 63.7957.

Process Vents

§ 63.7890 What emissions limitations and work practice standards must I meet for process vents?

(a) You must control HAP emissions from each new and existing process vent subject to § 63.7885(b)(1) according to emissions limitations and work practice standards in this section that apply to your affected process vents.

(b) For your affected process vents, you must meet one of the facility-wide emission limit options specified in paragraphs (b)(1) through (4) of this section. If you have multiple affected process vent streams, you may comply with this paragraph using a combination of controlled and uncontrolled process vent streams that achieve the facility-wide emission limit that applies to you.

(1) Reduce from all affected process vents the total emissions of the HAP

listed in Table 1 of this subpart to a level less than 1.4 kilograms per hour (kg/hr) and 2.8 Mg/yr (3.0 pounds per hour (lb/hr) and 3.1 tpy); or

(2) Reduce from all affected process vents the emissions of total organic carbon (TOC) (minus methane and ethane) to a level below 1.4 kg/hr and 2.8 Mg/yr (3.0 lb/hr and 3.1 tpy); or

(3) Reduce from all affected process vents the total emissions of the HAP listed in Table 1 of this subpart by 95 percent by weight or more; or

(4) Reduce from all affected process vents the emissions of TOC (minus methane and ethane) by 95 percent by weight or more.

(c) For each closed vent system and control device you use to comply with paragraph (b) of this section, you must meet the operating limit requirements and work practice standards in § 63.7925(c) through (j) that apply to your closed vent system and control device.

§ 63.7891 How do I demonstrate initial compliance with the emissions limitations and work practice standards for process vents?

(a) You must demonstrate initial compliance with the emissions limitations and work practice standards in § 63.7890(b) applicable to your affected process vents by meeting the requirements in paragraphs (b) through (d) of this section.

(b) You have measured or determined using the procedures for performance tests and design evaluations in § 63.7941 that emission levels from all of your affected process vents meet the facility-wide emission limits in § 63.7890(b) that apply to you, as follows in paragraphs (b)(1) through (4) of this section.

(1) If you elect to meet § 63.7890(b)(1), you demonstrate that the total emissions of the HAP listed in Table 1 of this subpart from all affected process vents at your facility are less than 1.4 kg/hr and 2.8 Mg/yr (3.0 lb/hr and 3.1 tpy).

(2) If you elect to meet § 63.7890(b)(2), you demonstrate that emissions of TOC (minus methane and ethane) from all affected process vents at your facility are less than 1.4 kg/hr and 2.8 Mg/yr (3.0 lb/hr and 3.1 tpy).

(3) If you elect to meet § 63.7890(b)(3), you demonstrate that the total emissions of the HAP listed in Table 1 of this subpart from all affected process vents are reduced by 95 percent by weight or more.

(4) If you elect to meet § 63.7890(b)(4), you demonstrate that the emissions of TOC (minus methane and ethane) from all affected process vents are reduced by 95 percent by weight or more.

(c) For each closed vent system and control device you use to comply with § 63.7890(b), you have met each requirement for demonstrating initial compliance with the emission limitations and work practice standards for a closed vent system and control device in § 63.7926.

(d) You have submitted a notification of compliance status according to the requirements in § 63.7950.

§ 63.7892 What are my inspection and monitoring requirements for process vents?

For each closed vent system and control device you use to comply with § 63.7890(b), you must monitor and inspect the closed vent system and control device according to the requirements in § 63.7927 that apply to you.

§ 63.7893 How do I demonstrate continuous compliance with the emissions limitations and work practice standards for process vents?

(a) You must demonstrate continuous compliance with the emissions limitations and work practice standards in § 63.7890 applicable to your affected process vents by meeting the requirements in paragraphs (b) through (d) of this section.

(b) You must maintain emission levels from all of your affected process vents to meet the facility-wide emission limits in § 63.7890(b) that apply to you, as specified in the following paragraph (b)(1) through (4) of this section.

(1) If you elect to meet § 63.7890(b)(1), you maintain the total emissions of the HAP listed in Table 1 of this subpart from all affected process vents at your facility are less than 1.4 kg/hr and 2.8 Mg/yr (3.0 lb/hr and 3.1 tpy).

(2) If you elect to meet § 63.7890(b)(2), you maintain emissions of TOC (minus methane and ethane) from all affected process vents at your facility are less than 1.4 kg/hr and 2.8 Mg/yr (3.0 lb/hr and 3.1 tpy).

(3) If you elect to meet § 63.7890(b)(3), you maintain the total emissions of the HAP listed in Table 1 of this subpart from all affected process vents are reduced by 95 percent by weight or more.

(4) If you elect to meet § 63.7890(b)(4), you maintain that the emissions of TOC (minus methane and ethane) from all affected process vents are reduced by 95 percent by weight or more.

(c) For each closed vent system and control device you use to comply with § 63.7890(b), you have met each requirement for demonstrating continuous compliance with the emission limitations and work practice standards for a closed vent system and control device in § 63.7928.

(d) Keeping records to document continuous compliance with the requirements of this subpart according to the requirements in § 63.7952.

Tanks

§ 63.7895 What emissions limitations and work practice standards must I meet for tanks?

(a) You must control HAP emissions from each new and existing tank subject to § 63.7886(b)(1)(i) according to emissions limitations and work practice standards in this section that apply to your affected tanks.

(b) For each affected tank, you must install and operate air pollution controls that meet the requirements in paragraphs (b)(1) through (4) of this section that apply to your tank.

(1) Unless your tank is used for a waste stabilization process, as defined in § 63.7957, you must determine the maximum HAP vapor pressure (expressed in kilopascals (kPa)) of the remediation material placed in your tank using the procedures specified in § 63.7944.

(2) If the maximum HAP vapor pressure of the remediation material you place in your tank is less than 76.6 kPa, then you must determine which tank level controls (*i.e.*, Tank Level 1 or Tank Level 2) apply to your tank as shown in Table 2 of this subpart, and based on your tank's design capacity (expressed in cubic meters (m^3)) and the maximum HAP vapor pressure of the remediation material you place in this tank. If your tank is required by Table 2 of this subpart to use Tank Level 1 controls, then you must meet the requirements in paragraph (c) of this section. If your tank is required by Table 2 of this subpart to use Tank Level 2 controls, then you must meet the requirements in paragraph (d) of this section

(3) If maximum HAP vapor pressure of the remediation material you place in your tank is 76.6 kPa or greater, then the tank must use one of the Tank Level 2 controls specified in paragraphs (d)(3) through (5) of this section. Use of floating roofs under paragraph (d)(1) or (2) of this section is not allowed for tanks managing these remediation materials.

(4) A tank used for a waste stabilization process, as defined in § 63.7957, must use one of Tank Level 2 controls, as specified in paragraph (d) of this section, that is appropriate for your waste stabilization process.

(c) If you use Tank Level 1 controls, you must install and operate a fixed roof according to the requirements in § 63.902. As an alternative to using this

fixed roof, you may choose to use one of Tank Level 2 controls in paragraph (d) of this section.

(d) If you use Tank Level 2 controls, you must meet the requirements of one of the options in paragraphs (d)(1) through (5) of this section.

(1) Install and operate a fixed roof with an internal floating roof according to the requirements in § 63.1063(a)(1)(i), (a)(2), and (b); or

(2) Install and operate an external floating roof according to the requirements in § 63.1063(a)(1)(ii), (a)(2), and (b); or

(3) Install and operate a fixed roof vented through a closed vent system to a control device according to the requirements in § 63.685(g). You must meet the emissions limitations and work practice standards in § 63.7925 that apply to your closed vent system and control device; or

(4) Install and operate a pressure tank according to the requirements in § 63.685(h); or

(5) Locate the tank inside a permanent total enclosure and vent emissions from the enclosure through a closed vent system to a control device that is an enclosed combustion device according to the requirements in § 63.685(i). You must meet the emissions limitations and work practice standards in § 63.7925 that apply to your closed vent system and control device.

(e) As provided in § 63.6(g), you may request approval from the EPA to use an alternative to the work practice standards in this section that apply to your tanks. If you request for permission to use an alternative to the work practice standards, you must submit the information described in § 63.6(g)(2).

§ 63.7896 How do I demonstrate initial compliance with the emissions limitations and work practice standards for tanks?

(a) You must demonstrate initial compliance with the emissions limitations and work practice standards in § 63.7895 that apply to your affected tanks by meeting the requirements in paragraphs (b) through (h) of this section, as applicable to your containers.

(b) You have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (b)(1) and (2) of this section.

(1) You have determined the applicable tank control levels specified in § 63.7895(b) for the tanks to be used for your site remediation.

(2) You have determined, according to the procedures § 63.7944, and recorded the maximum HAP vapor pressure of the remediation material placed in each affected tank subject to § 63.7886(b)(1)(i) that does not use Tank Level 2 controls.

(c) You must demonstrate initial compliance of each tank determined under paragraph (b) of this section to require Tank Level 1 controls if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (c)(1) through (3) of this section.

(1) Each tank using Tank Level 1 controls is equipped with a fixed roof and closure devices according to the requirements in § 63.902(b) and (c) and you have records documenting the design.

(2) You have performed an initial visual inspection of the fixed roof and closure devices for defects according to the requirements in § 63.906(a) and you have records documenting the inspection results.

(3) You will operate the fixed roof and closure devices according to the requirements in § 63.902.

(d) You must demonstrate initial compliance of each tank determined under paragraph (b) of this section to require Tank Level 2 controls and using a fixed roof with an internal floating roof according to § 63.7895(d)(1) if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (d)(1) through (3) of this section.

(1) Each tank is equipped with an internal floating roof that meets the requirements in § 63.1063(a) and you have records documenting the design.

(2) You will operate the internal floating roof according to the requirements in § 63.1063(b).

(3) You have performed an initial visual inspection according to the requirements in § 63.1063(d)(1) and you have a record of the inspection results.

(e) You must demonstrate initial compliance of each tank determined under paragraph (b) of this section to require Tank Level 2 controls and using an external floating roof according to § 63.7895(d)(2) if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (e)(1) through (3) of this section.

(1) Each tank is equipped with an external floating roof that meets the requirements in § 63.1063(a) and you have records documenting the design.

(2) You will operate the external floating roof according to the requirements in § 63.1063(b).

(3) You have performed an initial seal gap measurement inspection according to the requirements in § 63.1063(d)(3) and you have records of the measurement results.

(f) You must demonstrate initial compliance of each tank determined under paragraph (b) of this section to require Tank Level 2 controls and using a fixed roof vented to a control device according to § 63.7895(d)(3) if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (f)(1) through (4) of this section.

(1) Each tank is equipped with a fixed roof and closure devices according to the requirements in § 63.902(b) and (c) and you have records documenting the design.

(2) You have performed an initial visual inspection of fixed roof and closure devices for defects according to the requirements in § 63.695(b)(3) and you have records documenting the inspection results.

(3) You will operate the fixed roof and closure devices according to the requirements in § 63.685(g).

(4) You have met each applicable requirement for demonstrating initial compliance with the emission limitations and work practice standards for a closed vent system and control device in § 63.7926.

(g) You must demonstrate initial compliance of each tank determined under paragraph (b) of this section to require Tank Level 2 controls and operates as a pressure tank according to § 63.7895(d)(4) if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (g)(1) and (2) of this section.

(1) Each tank is designed to operate as a pressure tank according to the requirements in § 63.685(h), and you have records documenting the design.

(2) You will operate the pressure tank and according to the requirements in § 63.685(h).

(h) You must demonstrate initial compliance of each tank determined under paragraph (b) of this section to require Tank Level 2 controls and using a permanent total enclosure vented to an enclosed combustion device according to § 63.7895(d)(5) if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (h)(1) and (2) of this section.

(1) You have submitted as part of your notification of compliance status a

signed statement that you have performed the verification procedure according to the requirements in § 63.685(i), and you have records of the supporting calculations and measurements.

(2) You have met each applicable requirement for demonstrating initial compliance with the emission limitations and work practice standards for a closed vent system and control device in § 63.7926.

§ 63.7897 What are my inspection and monitoring requirements for tanks?

(a) You must visually inspect each of your tanks using Tank Level 1 controls for defects at least annually according to the requirements in § 63.906(a).

(b) You must inspect and monitor each of your tanks using Tank Level 2 controls according to the requirements in paragraphs (b)(1) through (5), as applicable to your tanks.

(1) If you use a fixed roof with an internal floating roof according to § 63.7895(d)(1), you must visually inspect the fixed roof and internal floating roof according to the requirements in § 63.1063(d)(1) and (2).

(2) If you use an external floating roof according to § 63.7895(d)(2), you must visually inspect the external floating roof according to the requirements in § 63.1063(d)(1) and inspect the seals according to the requirements in § 63.1063(d)(2) and (3).

(3) If you use a fixed roof vented to a control device according to § 63.7895(d)(3), you must meet requirements in paragraphs (b)(3)(i) and (ii) of this section.

(i) You must visually inspect the fixed roof and closure devices for defects according to the requirements in § 63.695(b)(3).

(ii) You must monitor and inspect the closed vent system and control device according to the requirements in § 63.7927 that apply to you.

(4) If you use a pressure tank according to § 63.7895(d)(4), you must visually inspect the tank and its closure devices for defects at least annually to ensure they are operating according to the design requirements in § 63.685(h).

(5) If you use a permanent total enclosure vented to an enclosed combustion device according to § 63.7895(d)(5), you must meet requirements in paragraphs (b)(5)(i) and (ii) of this section.

(i) You must perform the verification procedure for the permanent total enclosure at least annually according to the requirements in § 63.685(i).

(ii) You must monitor and inspect the closed vent system and control device according to the requirements in § 63.7927 that apply to you.

§ 63.7898 How do I demonstrate continuous compliance with the emissions limitations and work practice standards for tanks?

(a) You must demonstrate continuous compliance with the emissions limitations and work practice standards in § 63.7895 applicable to your affected tanks by meeting the requirements in paragraphs (b) through (d) of this section.

(b) You must demonstrate continuous compliance with the requirement to determine the applicable tank control level specified in § 63.7895(b) for each affected tank by meeting the requirements in paragraphs (b)(1) through (3) of this section.

(1) Keeping records of the tank design capacity according to the requirements in § 63.1065(a).

(2) For tanks subject to § 63.7886(b)(1)(ii) and not using Tank Level 2 controls, meeting the requirements in paragraphs (b)(2)(i) and (ii) of this section.

(i) Keeping records of the maximum HAP vapor pressure determined according to the procedures in § 63.7944 for the remediation material placed in each affected tank.

(ii) Performing a new determination of the maximum HAP vapor pressure whenever changes to the remediation material managed in the tank could potentially cause the maximum HAP vapor pressure to increase to a level that is equal to or greater than the maximum HAP vapor pressure for the tank design capacity specified in Table 2. You must keep records of each determination.

(3) Keeping records to document compliance with the requirements of this subpart according to the requirements in § 63.7952.

(c) You must demonstrate continuous compliance for each tank determined to require Tank Level 1 controls by meeting the requirements in paragraphs (c)(1) through (5) of this section.

(1) Operating and maintaining the fixed roof and closure devices according to the requirements in § 63.902(c).

(2) Visually inspecting the fixed roof and closure devices for defects at least annually according to the requirements in § 63.906(a).

(3) Repairing defects according to the requirements in § 63.63.906(b).

(4) Recording the information specified in § 63.907(a)(3) and (b).

(5) Keeping records to document compliance with the requirements of this subpart according to the requirements in § 63.7952.

(d) You must demonstrate continuous compliance for each tank determined to require Tank Level 2 controls and using a fixed roof with an internal floating roof according to § 63.7895(d)(1) by meeting the requirements in paragraphs (d)(1) through (5) of this section.

(1) Operating and maintaining the internal floating roof according to the requirements in § 63.1063(b).

(2) Visually inspecting the internal floating roof according to the requirements in § 63.1063(d)(1) and (2).

(3) Repairing defects according to the requirements in § 63.1063(e).

(4) Recording the information specified in § 63.1065(b) through (d).

(5) Keeping records to document compliance with the requirements of this subpart according to the requirements in § 63.7952.

(e) You must demonstrate continuous compliance for each tank determined to require Tank Level 2 controls and using an external floating roof according to § 63.7895(d)(2) by meeting the requirements in paragraphs (e)(1) through (5) of this section.

(1) Operating and maintaining the external floating roof according to the requirements in § 63.1063(b).

(2) Visually inspecting the external floating roof according to the requirements in § 63.1063(d)(1) and inspecting the seals according the requirements in § 63.1063(d)(2) and (3).

(3) Repairing defects according to the requirements in § 63.1063(e).

(4) Recording the information specified in § 63.1065(b) through (d).

(5) Keeping records to document compliance with the requirements of this subpart according to the requirements in § 63.7952.

(f) You must demonstrate continuous compliance for each tank determined to require Tank Level 2 controls and using a fixed roof vented to a control device according to § 63.7895(d)(3) by meeting the requirements in paragraphs (f)(1) through (6) of this section.

(1) Operating and maintaining the fixed roof and closure devices according to the requirements in § 63.685(g).

(2) Visually inspecting the fixed roof and closure devices for defects at least annually according to the requirements in § 63.695(b)(3)(i).

(3) Repairing defects according to the requirements in § 63.695(b)(4).

(4) Recording the information specified in § 63.696(e).

(5) Meeting each applicable requirement for demonstrating continuous compliance with the emission limitations and work practice standards for a closed vent system and control device in § 63.7928.

(6) Keeping records to document compliance with the requirements of this subpart according to the requirements in § 63.7952.

(g) You must demonstrate continuous compliance for each tank determined to

require Tank Level 2 controls and operated as a pressure tank according to § 63.7895(d)(4) by meeting the requirements in paragraphs (g)(1) through (3) of this section.

(1) Operating and maintaining the pressure tank and closure devices according to the requirements in § 63.685(h).

(2) Visually inspecting each pressurized tank and closure devices for defects at least annually to ensure they are operating according to the design requirements in § 63.685(h), and recording the results of each inspection.

(3) Keeping records to document compliance with the requirements of this subpart according to the requirements in § 63.7952.

(h) You must demonstrate continuous compliance for each tank determined to require Tank Level 2 controls and using a permanent total enclosure vented to an enclosed combustion device according to § 63.7895(d)(5) by meeting the requirements in paragraphs (h)(1) through (4) of this section.

(1) Performing the verification procedure for the enclosure annually according to the requirements in § 63.685(i).

(2) Recording the information specified in § 63.696(f).

(3) Meeting each applicable requirement for demonstrating continuous compliance with the emissions limitations and work practice standards for a closed vent system and control device in § 63.7928.

(4) Keeping records to document compliance with the requirements of this subpart according to the requirements in § 63.7952.

Containers

§ 63.7900 What emissions limitations and work practice standards must I meet for containers?

(a) You must control HAP emissions from each new and existing container subject to § 63.7886(b)(1)(ii) according to emissions limitations and work practice standards in this section that apply to your affected containers.

(b) For each container having a design capacity greater than 0.1 m^3 you must meet the requirements in paragraph (b)(1) or (2) of this section that apply to your container except at the times the container is used for treatment of remediation material by a waste stabilization process, as defined in § 63.7957. As an alternative for any container subject to this paragraph, you may choose to meet the requirements in paragraph (d) of this section.

(1) If the design capacity of your container is less than or equal to 0.46 m^3, then you must use controls according to the standards for Container Level 1 controls as specified in § 63.922. As an alternative, you may choose to use controls according to either of the standards for Container Level 2 controls as specified in § 63.923.

(2) If the design capacity of your container is greater than 0.46 m^3, then you must use controls according to the standards for Container Level 2 controls as specified in § 63.923 except as provided for in paragraph (b)(3) of this section.

(3) As an alternative to meeting the standards in paragraph (b)(2) of this section for containers with a capacity greater than 0.46 m^3, if you determine that either of the conditions in paragraphs (b)(3)(i) or (ii) apply to the remediation material placed in your container, then you may use controls according to the standards for Container Level 1 controls as specified in § 63.922.

(i) Vapor pressure of every organic constituent in the remediation material placed in your container is less than 0.3 kPa at 20°C; or

(ii) Total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20°C in the remediation material placed in your container is less than 20 percent by weight.

(c) At times when a container having a design capacity greater than 0.1 m^3 is used for treatment of a remediation material by a waste stabilization process as defined in § 63.7957, you must control air emissions from the container during the process whenever the remediation material in the container is exposed to the atmosphere according to the standards for Container Level 3 controls as specified in § 63.924. You must meet the emissions limitations and work practice standards in § 63.7925 that apply to your closed vent system and control device.

(d) As an alternative to meeting the requirements in paragraph (b) of this section, you may choose to use controls on your container according to the standards for Container Level 3 controls as specified in § 63.924. You must meet the emissions limitations and work practice standards in § 63.7925 that apply to your closed vent system and control device.

(e) As provided in § 63.6(g), you may request approval from the EPA to use an alternative to the work practice standards in this section that apply to your containers. If you request for permission to use an alternative to the work practice standards, you must submit the information described in § 63.6(g)(2).

§ 63.7901 How do I demonstrate initial compliance with the emissions limitations and work practice standards for containers?

(a) You must demonstrate initial compliance with the emissions limitations and work practice standards in § 63.7990 that apply to your affected containers by meeting the requirements in paragraphs (b) through (e) of this section, as applicable to your containers.

(b) You have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (b)(1) and (2) of this section.

(1) You have determined the applicable container control levels specified in § 63.7990 for the containers to be used for your site remediation.

(2) You have determined and recorded the maximum vapor pressure or total organic concentration for the remediation material placed in containers with a design capacity greater than 0.46 m^3, and do not use Container Level 2 or Level 3 controls.

(c) You must demonstrate initial compliance of each container determined under paragraph (b) of this section to require Container Level 1 controls if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (c)(1) and (2) of this section.

(1) Each container using Container Level 1 controls will be one of the containers specified in § 63.922(b).

(2) You will operate each container cover and closure device according to the requirements in § 63.922(d).

(d) You must demonstrate initial compliance of each container determined under paragraph (b) of this section to require Container Level 2 controls if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (d)(1) through (4) of this section.

(1) Each container using Container Level 2 controls will be one of the containers specified in § 63.923(b).

(2) You will transfer remediation materials into and out of each container according to the procedures in § 63.923(d).

(3) You will operate and maintain the container covers and closure devices according to the requirements in § 63.923(d).

(4) You have records that the container meets the applicable U.S. Department of Transportation

regulations, or you have conducted an initial test of each container for no detectable organic emissions using the procedures in § 63.925(a), and have records documenting the test results, or you have demonstrated within the last 12 months that each container is vapor-tight according to the procedures in § 63.925(a) and have records documenting the test results.

(e) You must demonstrate initial compliance of each container determined under paragraph (b) of this section to require Container Level 3 controls if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (e)(1) and (2) of this section.

(1) For each permanent total enclosure you use to comply with § 63.7900, you have performed the verification procedure according to the requirements in § 63.924(c)(1), and prepare records of the supporting calculations and measurements.

(2) You have met each applicable requirement for demonstrating initial compliance with the emission limitations and work practice standards for a closed vent system and control device in § 63.7926.

§ 63.7902 What are my inspection and monitoring requirements for containers?

(a) You must inspect each container using Container Level 1 or Container Level 2 controls according to the requirements in § 63.926(a).

(b) If you use Container Level 3 controls, you must meet requirements in paragraphs (b)(1) and (2) of this section, as applicable to your site remediation.

(1) You must perform the verification procedure for each permanent total enclosure annually according to the requirements in § 63.924(c)(1).

(2) You must monitor and inspect each closed vent system and control device according to the requirements in § 63.7927 that apply to you.

§ 63.7903 How do I demonstrate continuous compliance with the emissions limitations and work practice standards for containers?

(a) You must demonstrate continuous compliance with the emissions limitations and work practice standards in § 63.7990 applicable to your affected containers by meeting the requirements in paragraphs (b) through (e) of this section.

(b) You must demonstrate continuous compliance with the requirement to determine the applicable container control level specified in § 63.7990(b) for each affected tank by meeting the requirements in paragraphs (b)(1) through (3) of this section.

(1) Keeping records of the quantity and design capacity for each type of container used for your site remediation and subject to § 63.7886(b)(1)(ii).

(2) For containers subject to § 63.7886(b)(1)(ii) with a design capacity greater than 0.46 m^3 and not using Container Level 2 or Container Level 3 controls, meeting the requirements in paragraphs (b)(2)(i) and (ii) of this section.

(i) Keeping records of the maximum vapor pressure or total organic concentration for the remediation material placed in the containers, as applicable to the conditions in § 63.7900(b)(3)(i) or (ii) for which your containers qualify to use Container Level 1 controls.

(ii) Performing a new determination whenever changes to the remediation material placed in the containers could potentially cause the maximum vapor pressure or total organic concentration to increase to a level that is equal to or greater than the conditions specified in § 63.7900(b)(3)(i) or (ii), as applicable to your containers. You must keep records of each determination.

(3) Keeping records to document compliance with the requirements according to the requirements in § 63.7952.

(c) You must demonstrate continuous compliance for each container determined to require Container Level 1 controls by meeting the requirements in paragraphs (c)(1) through (5) of this section.

(1) Operating and maintaining covers for each container according to the requirements in § 63.922(d) .

(2) Inspecting each container annually according to the requirements in § 63.926(a)(2).

(3) Emptying or repairing each container according to the requirements in § 63.926(a)(3).

(4) Keeping records of an inspection that includes the information in paragraphs (a)(4)(i) and (ii) of this section.

(i) Date of each inspection; and

(ii) If a defect is detected during an inspection, the location of the defect, a description of the defect, the date of detection, the corrective action taken to repair the defect, and if repair is delayed, the reason for any delay and the date completion of the repair is expected.

(5) Keeping records to document compliance with the requirements according to the requirements in § 63.7952.

(d) You must demonstrate continuous compliance for each container determined to require Container Level 2 controls by meeting the requirements in paragraphs (d)(1) through (6) of this section.

(1) Transferring remediation material in and out of the container according to the requirements in § 63.923(c).

(2) Operating and maintaining container covers according to the requirements in § 63.923(d).

(3) Inspecting each container annually according to the requirements in § 63.926(a)(2).

(4) Emptying or repairing containers according to the requirements in § 63.926(a)(3).

(5) Keeping records of each inspection that include the information in paragraphs (d)(5)(i) and (ii) of this section.

(i) Date of each inspection; and

(ii) If a defect is detected during an inspection, the location of the defect, a description of the defect, the date of detection, the corrective action taken to repair the defect, and if repair is delayed, the reason for any delay and the date completion of the repair is expected.

(6) Keeping records to document compliance with the requirements of this subpart according to the requirements in § 63.7952.

(e) You must demonstrate continuous compliance for each container determined to require Container Level 3 controls by meeting the requirements in paragraphs (e)(1) through (4) of this section.

(1) Performing the verification procedure for the enclosure annually according to the requirements in § 63.685(i).

(2) Recording the information specified in § 63.696(f).

(3) Meeting each applicable requirement for demonstrating continuous compliance with the emissions limitations and work practice standards for a closed vent system and control device in § 63.7928.

(4) Keeping records to document compliance with the requirements of this subpart according to the requirements in § 63.7952.

Surface Impoundments

§ 63.7905 What emissions limitations or work practice standards must I meet for surface impoundments?

(a) You must control HAP emissions from each new and existing surface impoundment subject to § 63.7886(b)(1)(iii) according to emissions limitations and work practice standards in this section that apply to your affected surface impoundments.

(b) For each affected surface impoundment, you must install and

operate air pollution controls that meet either of the options in paragraphs (b)(1) or (2) of this section.

(1) Install and operate a floating membrane cover according to the requirements in § 63.942; or

(2) Install and operate a cover vented through a closed vent system to a control device according to the requirements in § 63.943. You must meet the emissions limitations and work practice standards in § 63.7925 that apply to your closed vent system and control device.

(c) As provided in § 63.6(g), you may request approval from the EPA to use an alternative to the work practice standards in this section that apply to your surface impoundments. If you request for permission to use an alternative to the work practice standards, you must submit the information described in § 63.6(g)(2).

§ 63.7906 How do I demonstrate initial compliance with the emissions limitations or work practice standards for surface impoundments?

(a) You must demonstrate initial compliance with the emissions limitations and work practice standards in § 63.7905 that apply to your affected surface impoundments by meeting the requirements in paragraphs (b) and (c) of this section, as applicable to your surface impoundments.

(b) You must demonstrate initial compliance of each surface impoundment using a floating membrane cover according to § 63.7905(b)(1) if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (b)(1) through (3) of this section.

(1) You have installed a floating membrane cover and closure devices that meet the requirements in § 63.942(b), and you have records documenting the design and installation.

(2) You will operate the cover and closure devices according to the requirements in § 63.942(c).

(3) You have performed an initial visual inspection of each surface impoundment and closure devices according to the requirements in § 63.946(a), and you have records documenting the inspection results.

(c) You must demonstrate initial compliance of each surface impoundment using a cover vented to a control device according to § 63.7905(b)(2) if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (c)(1) through (4) of this section.

(1) You have installed a cover and closure devices that meet the requirements in § 63.943(b), and have records documenting the design and installation.

(2) You will operate the cover and closure devices according to the requirements in § 63.943(c).

(3) You have performed an initial visual inspection of each cover and closure devices according to the requirements in § 63.946(b), and have records documenting the inspection results.

(4) You have met each applicable requirement for demonstrating initial compliance with the emission limitations and work practice standards for a closed vent system and control device in § 63.7926.

§ 63.7907 What are my inspection and monitoring requirements for surface impoundments?

(a) If you use a floating membrane cover according to § 63.7905(b)(1), you must visually inspect the floating membrane cover and its closure devices at least annually according to the requirements in § 63.946(a).

(b) If you use a cover vented to a control device according to § 63.7905(b)(2), you must meet requirements in paragraphs (b)(1) and (2) of this section.

(1) You must visually inspect the cover and its closure devices for defects according to the requirements in § 63.946(b).

(2) You must monitor and inspect the closed vent system and control device according to the requirements in § 63.7927 that apply to you.

§ 63.7908 How do I demonstrate continuous compliance with the emissions limitations and work practice standards for surface impoundments?

(a) You must demonstrate continuous compliance with the emissions limitations and work practice standards in § 63.7905 applicable to your affected surface impoundments by meeting the requirements in paragraphs (b) and (c) of this section as applicable to your surface impoundments.

(b) You must demonstrate continuous compliance for each surface impoundment using a floating membrane cover according to § 63.7905(b)(1) by meeting the requirements in paragraphs (b)(1) through (5) of this section.

(1) Operating and maintaining the floating membrane cover and closure devices according to the requirements in § 63.942(c).

(2) Visually inspecting the floating membrane cover and closure devices for defects at least annually according to the requirements in § 63.946(a).

(3) Repairing defects according to the requirements in § 63.946(c).

(4) Recording the information specified in § 63.947(a)(2) and (a)(3).

(5) Keeping records to document compliance with the requirements according to the requirements in § 63.7952.

(c) You must demonstrate continuous compliance for each surface impoundment using a cover vented to a control device according to § 63.7905(b)(2) by meeting the requirements in paragraphs (c)(1) through (6) of this section.

(1) Operating and maintaining the cover and its closure devices according to the requirements in § 63.943(c).

(2) Visually inspecting the cover and its closure devices for defects at least annually according to the requirements in § 63.946(b).

(3) Repairing defects according to the requirements in § 63.946(c).

(4) Recording the information specified in § 63.947(a)(2) and (a)(3).

(5) Meeting each applicable requirement for demonstrating continuous compliance with the emission limitations and work practice standards for a closed vent system and control device in § 63.7928.

(6) Keeping records to document compliance with the requirements according to the requirements in § 63.7952.

Separators

§ 63.7910 What emissions limitations and work practice standards must I meet for separators?

(a) You must control HAP emissions from each new and existing oil-water separator and organic-water separator subject to § 63.7886(b)(1)(iv) according to emissions limitations and work practice standards in this section that apply to your affected separators.

(b) For each affected separator, you must install and operate air pollution controls that meet one of the options in paragraphs (b)(1) through (3) of this section.

(1) Install and operate a floating roof according to the requirements in § 63.1043. For portions of the separator where it is infeasible to install and operate a floating roof, such as over a weir mechanism, you must comply with the requirements specified in paragraph (b)(2) of this section.

(2) Install and operate a fixed roof vented through a closed vent system to a control device according to the requirements in § 63.1044. You must

meet the emissions limitations and work practice standards in § 63.7925 that apply to your closed vent system and control device.

(3) Install and operate a pressurized separator according to the requirements in § 63.1045.

(c) As provided in § 63.6(g), you may request approval from the EPA to use an alternative to the work practice standards in this section that apply to your separators. If you request for permission to use an alternative to the work practice standards, you must submit the information described in § 63.6(g)(2).

§ 63.7911 How do I demonstrate initial compliance with the emissions limitations and work practice standards for separators?

(a) You must demonstrate initial compliance with the emissions limitations and work practice standards in § 63.7910 that apply to your affected separators by meeting the requirements in paragraphs (b) through (d) of this section, as applicable to your separators.

(b) You must demonstrate initial compliance of each separator using a floating roof according to § 63.7910(b)(1) if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (b)(1) through (4) of this section.

(1) You have installed a floating roof and closure devices that meet the requirements in § 63.1043(b), and you have records documenting the design and installation.

(2) You will operate the floating roof and closure devices according to the requirements in § 63.1043(c).

(3) You have performed an initial seal gap measurement inspection using the procedures in § 63.1046(b), and you have records documenting the measurement results.

(4) You have performed an initial visual inspection of the floating roof and closure devices for defects according to the requirements in § 63.1047(b)(2), and you have records documenting the inspection results.

(5) For any portions of the separator using a fixed roof vented to a control device according to § 63.7910(b)(1), you have met the requirements in paragraphs (c)(1) through (4) of this section.

(c) You must demonstrate initial compliance of each separator using a fixed roof vented to a control device according to § 63.7910(b)(2) if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (c)(1) through (4) of this section.

(1) You have installed a fixed roof and closure devices that meet the requirements in § 63.1042(b), and you have records documenting the design and installation.

(2) You will operate the fixed roof and its closure devices according to the requirements in § 63.1042(c).

(3) You have performed an initial visual inspection of the fixed roof and closure devices for defects according to the requirements in § 63.1047(a).

(4) You have met each applicable requirement for demonstrating initial compliance with the emission limitations and work practice standards for a closed vent system and control device in § 63.7926.

(d) You must demonstrate initial compliance of each pressurized separator that operates as a closed system according to § 63.7910(b)(3) if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (d)(1) and (2) of this section.

(1) You have installed a pressurized separator that operates as a closed system according to the requirements in § 63.1045(b)(1) and (b)(2), and you have records of the design and installation.

(2) You will operate the pressurized separator as a closed system according to the requirements in § 63.1045(b)(3).

§ 63.7912 What are my inspection and monitoring requirements for separators?

(a) If you use a floating roof according to § 63.7910(b)(1), you must meet requirements in paragraphs (a)(1) and (2) of this section.

(1) Measure the seal gaps at least annually according to the requirements in § 63.1047(b)(1).

(2) Visually inspect the floating roof at least annually according to the requirements in § 63.1047(b)(2).

(b) If you use a cover vented to a control device according to § 63.7910(b)(1) or (2), you must meet requirements in paragraphs (b)(1) and (2) of this section.

(1) You must visually inspect the cover and its closure devices for defects according to the requirements in § 63.1047(c).

(2) You must monitor and inspect the closed vent system and control device according to the requirements in § 63.7927 that apply to you.

(c) If you use a pressurized separator that operates as a closed system according to § 63.7910(b)(3), you must visually inspect each pressurized separator and closure devices for defects at least annually to ensure they are operating according to the design requirements in § 63.1045(b).

§ 63.7913 How do I demonstrate continuous compliance with the emissions limitations and work practice standards for separators?

(a) You must demonstrate continuous compliance with the emissions limitations and work practice standards in § 63.7910 applicable to your affected separators by meeting the requirements in paragraphs (b) through (d) of this section as applicable to your surface impoundments.

(b) You must demonstrate continuous compliance for each separator using a floating roof according to § 63.7910(b)(1) by meeting the requirements in paragraphs (b)(1) through (6) of this section.

(1) Operating and maintaining the floating roof according to the requirements in § 63.1043(b).

(2) Performing seal gap measurement inspections at least annually according to the requirements in § 63.1047(b)(1).

(3) Visually inspecting the floating roof at least annually according to the requirements in § 63.1047(b)(2).

(4) Repairing defects according to the requirements in § 63.1047(d).

(5) Recording the information specified in § 63.1048(a) and (b).

(6) Keeping records to document compliance with the requirements according to the requirements in § 63.7952.

(c) You must demonstrate continuous compliance for each separator using a cover vented to a control device according to § 63.7905(b)(1) or (2) by meeting the requirements in paragraphs (c)(1) through (6) of this section.

(1) Operating and maintaining the fixed roof and its closure devices according to the requirements in § 63.1042.

(2) Performing visual inspections of the fixed roof and its closure devices for defects at least annually according to the requirements in § 63.1047(a).

(3) Repairing defects according to the requirements in § 63.1047(d).

(4) Recording the information specified in § 63.1048(a).

(5) Meeting each applicable requirement for demonstrating continuous compliance with the emission limitations and work practice standards for a closed vent system and control device in § 63.7928.

(6) Keeping records to document compliance with the requirements of this subpart according to the requirements in § 63.7952.

(d) You must demonstrate continuous compliance for each pressurized

separator operated as a closed system according to § 63.7910(b)(3) by meeting the requirements in paragraphs (d)(1) and (2) of this section.

(1) Operating the pressurized separator at all times according to the requirements in § 63.1045.

(2) Visually inspecting each pressurized tank and closure devices for defects at least annually to ensure they are operating according to the design requirements in § 63.1045(b), and recording the results of each inspection.

Transfer Systems

§ 63.7915 What emissions limitations and work practice standards must I meet for transfer systems?

(a) You must control HAP emissions from each new and existing transfer system subject to § 63.7886(b)(1)(v) according to emissions limitations and work practice standards in this section that apply to your affected transfer systems.

(b) For each affected transfer system that is an individual drain system as defined in § 63.7957, you must install and operate controls according to the requirements in § 63.962.

(c) For each affected transfer system that is not an individual drain system as defined in § 63.7957, you must use one of the transfer systems specified in paragraphs (c)(1) through (3) of this section.

(1) A transfer system that uses covers according to the requirements in § 63.689(d).

(2) A transfer system that consists of continuous hard-piping. All joints or seams between the pipe sections shall be permanently or semi-permanently sealed (e.g., a welded joint between two sections of metal pipe or a bolted and gasketed flange).

(3) A transfer system that is enclosed and vented through a closed vent system to a control device according to the requirements specified in paragraphs (c)(3)(i) and (ii) of this section.

(i) The transfer system is designed and operated such that an internal pressure in the vapor headspace in the enclosure is maintained at a level less than atmospheric pressure when the control device is operating, and

(ii) The closed vent system and control device are designed and operated to meet the emissions limitations and work practice standards in § 63.7925 that apply to your closed vent system and control device.

(d) As provided in § 63.6(g), you may request approval from the EPA to use an alternative to the work practice standards in this section that apply to your transfer systems. If you request for permission to use an alternative to the work practice standards, you must submit the information described in § 63.6(g)(2).

§ 63.7916 How do I demonstrate initial compliance with the emissions limitations and work practice standards for transfer systems?

(a) You must demonstrate initial compliance with the emissions limitations and work practice standards in § 63.7915 that apply to your affected transfer systems by meeting the requirements in paragraphs (b) through (e) of this section, as applicable to your transfer systems.

(b) You must demonstrate initial compliance of each individual drain system using controls according to § 63.7915(b) if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (b)(1) through (3) of this section.

(1) You have installed air emission controls for each individual drain system and junction box according to the requirements in § 63.962(a) and (b), and you have records documenting the installation and design.

(2) You will operate the air emission controls according to the requirements in § 63.962(b)(5).

(3) You have performed an initial visual inspection of each individual drain system according to the requirements in § 63.964(a), and you have records documenting the inspection results.

(c) You must demonstrate initial compliance of each transfer system using covers according to § 63.7915(c)(1) if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (c)(1) through (3) of this section.

(1) Each transfer system is equipped with covers and closure devices according to the requirements in § 63.689(d)(1) through (4), and you have records documenting the design and installation.

(2) You have performed an initial inspection of each cover and its closure devices for defects according to the requirements in § 63.695(d)(1) through (5), and you have records documenting the inspection results.

(3) You will operate each cover and its closure devices according to the requirements in § 63.689(5).

(d) You must demonstrate initial compliance of each transfer system that consists of hard piping according to § 63.7915(c)(2) if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (d)(1) and (2) of this section.

(1) You have installed a transfer system that consists entirely of hard piping and meets the requirements in § 63.7915(c)(2), and you have records documenting the design and installation.

(2) You have performed an initial inspection of the entire transfer system to verify that all joints or seams between the pipe sections are permanently or semi-permanently sealed (*e.g.*, a welded joint between two sections of metal pipe or a bolted and gasketed flange), and you have records documenting the inspection results.

(e) You must demonstrate initial compliance of each transfer system that is enclosed and vented to a control device according to § 63.7915(e)(3) if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (e)(1) and (2) of this section.

(1) You have installed a transfer system that is designed and operated such that an internal pressure in the vapor headspace in the enclosure is maintained at a level less than atmospheric pressure when the control device is operating, and you have records documenting the design and installation.

(2) You have met each applicable requirement for demonstrating initial compliance with the emission limitations and work practice standards for a closed vent system and control device in § 63.7926.

§ 63.7917 What are my inspection and monitoring requirements for transfer systems?

(a) If you operate an individual drain system as a transfer system according to § 63.7915(b), you must visually inspect each individual drain system at least annually according to the requirements in § 63.964(a).

(b) If you operate a transfer system using covers according to § 63.7915(c)(1), you must inspect each cover and its closure devices for defects according to the requirements in § 63.695(d)(1) through (5).

(c) If you operate a transfer system consisting of hard piping according to § 63.7915(c)(2), you must annually inspect the entire pipeline and all joints for leaks and other defects. In the event that a defect is detected, you must repair the leak or defect according to the

requirements of paragraph (e) of this section.

(d) If you operate a transfer system that is enclosed and vented to a control device according to § 63.7915(c)(3), you must meet requirements in paragraphs (d)(1) and (2) of this section.

(1) You must annually inspect all enclosure components (e.g., enclosure sections, closure devices, fans) for defects that would prevent an internal pressure in the vapor headspace in the enclosure from continuously being maintained at a level less than atmospheric pressure when the control device is operating. In the event that a defect is detected, you must repair the defect according to the requirements of paragraph (e) of this section.

(2) You must monitor and inspect the closed vent system and control device according to the requirements in § 63.7927 that apply to you.

(e) If you are subject to paragraph (c) or (d) of this section, you must repair all detected defects as specified in paragraphs (e)(1) through (3) of this section.

(1) You must make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in paragraph (e)(2) of this section.

(2) Repair of a defect may be delayed beyond 45 calendar days if you determine that repair of the defect requires emptying or temporary removal from service of the transfer system and no alternative transfer system is available at the site to accept the material normally handled by the system. In this case, you must repair the defect the next time the process or unit that is generating the material handled by the transfer system stops operation. Repair of the defect must be completed before the process or unit resumes operation.

(3) You must maintain a record of the defect repair according to the requirements specified in § 63.7952.

§ 63.7918 How do I demonstrate continuous compliance with the emissions limitations and work practice standards for transfer systems?

(a) You must demonstrate continuous compliance with the emissions limitations and work practice standards in § 63.7915 applicable to your affected transfer system by meeting the requirements in paragraphs (b) through (e) of this section as applicable to your transfer systems.

(b) You must demonstrate continuous compliance for each individual drain system using controls according to § 63.7915(b) by meeting the requirements in paragraphs (b)(1) through (5) of this section.

(1) Operating and maintaining the air emission controls for individual drain systems according to the requirements in § 63.962.

(2) Visually inspecting each individual drain system at least annually according to the requirements in § 63.964(a).

(3) Repairing defects according to the requirements in § 63.964(b).

(4) Recording the information specified in § 63.965(a).

(5) Keeping records to document compliance with the requirements of this subpart according to the requirements in § 63.7952.

(c) You must demonstrate continuous compliance for each transfer system using covers according to § 63.7915(c)(1) by meeting the requirements in paragraphs (c)(1) through (4) of this section.

(1) Operating and maintaining each cover and its closure devices according to the requirements in § 63.689(d)(1) through (5).

(2) Performing inspections of each cover and its closure devices for defects at least annually according to the requirements in § 63.695(d)(1) through (5).

(3) Repairing defects according to the requirements in § 63.695(5)

(4) Keeping records to document compliance with the requirements of this subpart according to the requirements in § 63.7952.

(d) You must demonstrate continuous compliance for each transfer system that consists of hard piping according to § 63.7915(c)(2) by meeting the requirements in paragraphs (d)(1) through (4) of this section.

(1) Operating and maintaining the pipeline to ensure that all joints or seams between the pipe sections remain permanently or semi-permanently sealed (*e.g.*, a welded joint between two sections of metal pipe or a bolted and gasketed flange).

(2) Inspecting the pipeline for defects at least annually according to the requirements in § 63.7918(c).

(3) Repairing defects according to the requirements in § 63.7918(e).

(4) Keeping records to document compliance with the requirements of this subpart according to the requirements in § 63.7952.

(e) You must demonstrate continuous compliance for each transfer system that is enclosed and vented to a control device according to § 63.7915(e)(3) by meeting the requirements in paragraphs (e)(1) through (5) of this section.

(1) Operating and maintaining the enclosure to ensure that the internal pressure in the vapor headspace in the enclosure is maintained continuously at a level less than atmospheric pressure when the control device is operating.

(2) Inspecting the enclosure and its closure devices for defects at least annually according to the requirements in § 63.7918(d).

(3) Repairing defects according to the requirements in § 63.7918(e).

(4) Meeting each applicable requirement for demonstrating continuous compliance with the emission limitations and work practice standards for a closed vent system and control device in § 63.7928.

(5) Keeping records to document compliance with the requirements according to the requirements in § 63.7952.

Equipment Leaks

§ 63.7920 What emissions limitations and work practice standards must I meet for equipment leaks?

(a) You must control HAP emissions from each new and existing equipment subject to § 63.7887 according to emissions limitations and work practice standards in this section that apply to your affected equipment.

(b) For your affected equipment, you must meet the requirements in either paragraph (b)(1) or (2) of this section.

(1) Control equipment leaks according to all applicable requirements under 40 CFR part 63, subpart TT—National Emission Standards for Equipment Leaks—Control Level 1; or

(2) Control equipment leaks according to all applicable requirements under 40 CFR part 63, subpart UU—National Emission Standards for Equipment Leaks—Control Level 2.

(c) If you use a closed vent system and control device to comply with this section, as an alternative to meeting the standards in § 63.1015 or § 63.1034 for closed vent systems and control devices, you may elect to meet the requirements in §§ 63.7925 through 63.7928 that apply to your closed vent system and control device.

(d) As provided in § 63.6(g), you may request approval from the EPA to use an alternative to the work practice standards in this section that apply to your equipment. If you request for permission to use an alternative to the work practice standards, you must submit the information described in § 63.6(g)(2).

§ 63.7921 How do I demonstrate initial compliance with the emissions limitations and work practice standards for equipment leaks?

(a) You must demonstrate initial compliance with the emissions

limitations and work practice standards in § 63.7920 that apply to your affected equipment by meeting the requirements in paragraphs (b) and (c) of this section, as applicable to your affected sources.

(b) If you control equipment leaks according to the requirements under § 63.7920(b)(1), you must demonstrate initial compliance if you have met the requirements in paragraphs (b)(1) and (2) of this section.

(1) You include the information required in § 63.1018(a)(1) in your notification of compliance status report.

(2) You have submitted as part of your notification of compliance status a signed statement that:

(i) You will meet the requirements in §§ 63.1002 through 63.1016 that apply to your affected equipment.

(ii) You have identified the equipment subject to control according to the requirements in § 63.1003, including equipment designated as unsafe to monitor, and have records supporting the determinations with a written plan for monitoring the equipment according to the requirements in § 63.1003(c)(4).

(c) If you control equipment leaks according to the requirements under § 63.7920(b)(2), you must demonstrate initial compliance if you have met the requirements in paragraphs (c)(1) and (2) of this section.

(1) You have included the information required in § 63.1039(a) in your notification of compliance status report.

(2) You have submitted as part of your notification of compliance status a signed statement that:

(i) You will meet the requirements in §§ 63.1021 through 63.1037 that apply to your affected equipment.

(ii) You have identified the equipment subject to control according to the requirements in § 63.1022, including equipment designated as unsafe to monitor, and have records supporting the determinations with a written plan for monitoring the equipment according to the requirements in § 63.1022(c)(4).

§ 63.7922 How do I demonstrate continuous compliance with the work practice standards for equipment leaks?

(a) You must demonstrate continuous compliance with the emissions limitations and work practice standards in § 63.7920 applicable to your affected equipment by meeting the requirements in paragraphs (b) through (d) of this section that apply to you.

(b) If you control equipment leaks according to the requirements under § 63.7920(b)(1), you must demonstrate continuous compliance by inspecting, monitoring, repairing, and maintaining records according to the requirements in §§ 63.1002 through 63.1018 that apply to your affected equipment.

(c) If you control equipment leaks according to the requirements under § 63.7920(b)(2), you must demonstrate continuous compliance by inspecting, monitoring, repairing, and maintaining records according to the requirements in §§ 63.1021 through 63.1039 that apply to your affected equipment.

(d) You must keep records to demonstrate compliance with the requirements according to the requirements in § 63.7952.

Closed Vent Systems and Control Devices

§ 63.7925 What emissions limitations and work practice standards must I meet for closed vent systems and control devices?

(a) For each closed-vent system and control device you use to comply with requirements in §§ 63.7890 through 63.7922, as applicable to your affected sources, you must meet the emissions limitations and work practice standards in this section.

(b) Whenever gases or vapors containing HAP are vented through the closed-vent system to the control device, the control device must be operating except at those times listed in either paragraph (b)(1) or (2) of this section.

(1) The control device may be bypassed for the purpose of performing planned routine maintenance of the closed-vent system or control device in situations when the routine maintenance cannot be performed during periods that the emission point vented to the control device is shutdown. On an annual basis, the total time that the closed-vent system or control device is bypassed to perform routine maintenance must not exceed 240 hours per each calendar year.

(2) The control device may be bypassed for the purpose of correcting a malfunction of the closed-vent system or control device. You must perform the adjustments or repairs necessary to correct the malfunction as soon as practicable after the malfunction is detected.

(c) For each closed vent system, you must meet the work practice standards in § 63.693(c).

(d) For each control device other than a flare or a control device used to comply with the facility-wide process vent emission limits in § 63.7890(b), you must control HAP emissions to meet either of the emissions limits in paragraphs (d)(1) or (2) of this section except as provided for in paragraph (f) of this section.

(1) Reduce emissions of total HAP listed in Table 1 of this subpart or TOC (minus methane and ethane) from each control device by 95 percent by weight; or

(2) Limit the concentration of total HAP listed in Table 1 of this subpart or TOC (minus methane and ethane) from each combustion control device (a thermal incinerator, catalytic incinerator, boiler, or process heater) to 20 ppmv or less on a dry basis corrected to 3 percent oxygen.

(e) If you use a flare for your control device, then you must meet the requirements for flares in § 63.11(b).

(f) If you use a process heater or boiler for your control device, then as alternative to meeting the emissions limits in paragraph (d) of this section you may choose to comply with one of the work practice standards in paragraphs (f)(1) through (3) of this section.

(1) Introduce the vent stream into the flame zone of the boiler or process heater and maintain the conditions in the combustion chamber at a residence time of 0.5 seconds or longer and at a temperature of 760°C or higher; or

(2) Introduce the vent stream with the fuel that provides the predominate heat input to the boiler or process heater (*i.e.*, the primary fuel); or

(3) Introduce the vent stream to a boiler or process heater for which you either have been issued a final permit under 40 CFR part 270 and complies with the requirements of 40 CFR part 266, subpart H—Hazardous Waste Burned in Boilers and Industrial Furnaces; or has certified compliance with the interim status requirements of 40 CFR part 266, subpart H.

(g) For each control device other than a flare, you must meet each operating limit in paragraphs (g)(1) through (6) of this section that applies to your control device.

(1) If you use a regenerable carbon adsorption system, you must:

(i) Maintain the hourly average total regeneration stream mass flow during the adsorption bed regeneration cycle greater than or equal to the stream mass flow established in the design evaluation or performance test.

(ii) Maintain the hourly average temperature of the adsorption bed during regeneration (except during the cooling cycle) greater than or equal to the temperature established during the design evaluation or performance test.

(iii) Maintain the hourly average temperature of the adsorption bed after regeneration (and within 15 minutes after completing any cooling cycle) less than or equal to the temperature established during the design evaluation.

(iv) Maintain the frequency of regeneration greater than or equal to the

frequency established during the design evaluation.

(2) If you use a nonregenerable carbon adsorption system, you must maintain the hourly average temperature of the adsorption bed less than or equal to the temperature established during the design evaluation or performance test.

(3) If you use a condenser, you must maintain the daily average condenser exit temperature less than or equal to the temperature established during the design evaluation or performance test.

(4) If you use a thermal incinerator, you must maintain the daily average firebox temperature greater than or equal to the temperature established in the design evaluation or during the performance test.

(5) If you use a catalytic incinerator, you must maintain the daily average temperature difference across the catalyst bed greater than or equal to the minimum temperature difference established during the performance test or design evaluation.

(6) If you use a boiler or process heater to comply with an emission limit in paragraph (d) of this section, you must maintain the daily average firebox temperature within the operating level established during the design evaluation or performance test.

(h) If you use a carbon adsorption system as your control, you must meet each work practice standard in paragraphs (h)(1) through (3) of this section that applies to your control device.

(1) If you use a regenerable carbon adsorption system, you must:

(i) Replace the existing adsorbent in each segment of the bed with an adsorbent that meets the replacement specifications established during the design evaluation before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation.

(ii) Follow the disposal requirements for spent carbon in § 63.693(d)(4).

(2) If you use a nonregenerable carbon adsorption system, you must:

(i) Replace the existing adsorbent in each segment of the bed with an adsorbent that meets the replacement specifications established during the design evaluation before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation.

(ii) Meet the disposal requirements for spent carbon in § 63.693(d)(4)(ii).

(3) If you use a nonregenerative carbon adsorption system, you may choose to comply with the requirements in paragraphs (h)(3)(i) and (ii) of this section as an alternative to the requirements in paragraph (h)(2) of this section. You must:

(i) Immediately replace the carbon canister or carbon in the control device when the monitoring device indicates breakthrough has occurred according to the requirements in § 63.693(d)(4)(iii)(A), or replace the carbon canister or carbon in the control device at regular intervals according to the requirements in § 63.693(d)(4)(iii)(B).

(ii) Follow the disposal requirements for spent carbon in § 63.693(d)(4)(ii).

(i) If you use a catalytic incinerator, you must replace the existing catalyst bed with a bed that meets the replacement specifications before the age of the bed exceeds the maximum allowable age established in the design evaluation or during the performance test.

(j) As provided in § 63.6(g), you may request approval from the EPA to use an alternative to the work practice standards in this section that apply to your closed vent systems and control devices. If you request for permission to use an alternative to the work practice standards, you must submit the information described in § 63.6(g)(2).

§ 63.7926 How do I demonstrate initial compliance with the emission limitations and work practice standards for closed vent systems and control devices?

(a) You must demonstrate initial compliance with the emissions limitations and work practice standards in this subpart applicable to your closed vent system and control device by meeting the requirements in paragraphs (b) through (h) of this section that apply to your closed vent system and control device.

(b) You must demonstrate initial compliance with the closed vent system work practice standards in § 63.7925(c) if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (b)(1) and (2) of this section.

(1) You have installed a closed vent system that meets the requirements in § 63.695(c)(1) and (2), and you have records documenting the equipment design and installation.

(2) You have performed the initial inspection of the closed vent system according to the requirements in § 63.695(c)(1)(i) or (ii), and you have records documenting the inspection results.

(c) You must demonstrate initial compliance of each control device subject to the emissions limits in § 63.7925(d) with the applicable emissions limit in § 63.7925(d) if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (c)(1) and (2) of this section that apply to you.

(1) For the emissions limit in § 63.7925(d)(1), the emissions of total HAP listed in Table 1 of this subpart or TOC (minus methane and ethane) from the control device, measured or determined according to the procedures for performance tests and design evaluations in § 63.7941, are reduced by at least 95 percent by weight.

(2) For the emissions limit in § 63.7925(d)(2), the concentration of total HAP listed in Table 1 of this subpart or TOC (minus methane and ethane) from the combustion control device, measured by a performance test or determined by a design evaluation according to the procedures in § 63.7941, do not exceed 20 ppmv on a dry basis corrected to 3 percent oxygen.

(d) You must demonstrate initial compliance of each control device subject to operating limits in § 63.7925(g) with the applicable limits if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (d)(1) and (2) of this section.

(1) You have established an appropriate operating limit(s) for each of the operating parameter applicable to your control device as specified in § 63.7925(g)(1) through (6).

(2) You have a record of the applicable operating parameter data during the performance test or design evaluation during which the emissions met the applicable limit.

(e) You must demonstrate initial compliance with the spent carbon replacement and disposal work practice standards for carbon adsorption systems in § 63.7925(h) if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you will comply with each work practice standard that applies to your carbon adsorption system.

(f) You must demonstrate initial compliance with the catalyst replacement work practice standards for catalytic incinerators in § 63.7925(i) if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you will comply with the specified work practice standard.

(g) You must demonstrate initial compliance of each flare with the work practice standards in § 63.7925(e) if you have submitted as part of your

notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (g)(1) through (3) of this section.

(1) Each flare meets the requirements in § 63.11(b).

(2) You have performed a visible emissions test, determined the net heating value of gas being combusted, and determined the flare exit velocity as required in § 63.693(h)(2).

(3) You will operate each flare according to the requirements in § 63.11(b).

(h) You must demonstrate initial compliance of each boiler or process heater with the work practice standards in § 63.7925(f) if you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (h)(1) through (3) of this section.

(1) For the work practice standards in § 63.7925(f)(1), you have records documenting that the boiler or process heater is designed to operate at a residence time of 0.5 seconds or greater and maintain the combustion zone temperature at 760°C or greater.

(2) For the work practice standard in § 63.7925(f)(2), you have records documenting that the vent stream is introduced with the fuel according to the requirements in § 63.693(g)(1)(iv), or that the vent stream is introduced to a boiler or process heater that meets the requirements in § 63.693(g)(1)(v).

(3) For the work practice standard in § 63.7925(f)(3), you have records documenting you either have been issued a final permit under 40 CFR part 270 and your boiler or process heater complies with the requirements of 40 CFR part 266, subpart H—Hazardous Waste Burned in Boilers and Industrial Furnaces; or has been certified in compliance with the interim status requirements of 40 CFR part 266, subpart H.

§ 63.7927 What are my inspection and monitoring requirements for closed vent systems and control devices?

(a) You must comply with the requirements in paragraphs (a)(1) and (2) of this section for each closed vent system.

(1) You must monitor and inspect each closed vent system according to the requirements in either paragraph (a)(1)(i) or (ii) of this section.

(i) You must monitor, inspect, and repair defects according to the requirements in § 63.695(c)(1)(ii) through (c)(3); or

(ii) You must monitor and inspect the closed vent system according to the requirements in § 63.172(f) through (j) and record the information in § 63.181.

(2) If your closed vent system includes a bypass device, you must meet the requirements in either paragraph (a)(2)(i) or (ii) of this section.

(i) Use a flow indicator to determine if the presence of flow according to the requirements in § 63.693(c)(2)(i); or

(ii) Use a seal or locking device and make monthly inspections as required by § 63.693(c)(2)(ii).

(b) If you use a regenerable carbon adsorption system, you must meet the requirements in paragraphs (b)(1) through (3) of this section.

(1) Use a continuous parameter monitoring system (CPMS) to measure and record the hourly average total regeneration stream mass flow during each carbon adsorption cycle.

(2) Use a CPMS to measure and record the hourly average temperature of the adsorption bed during regeneration (except during the cooling cycle).

(3) Use a CPMS to measure and record the hourly average temperature of the adsorption bed after regeneration (and within 15 minutes of after completing any cooling cycle).

(c) If you use a nonregenerable carbon adsorption system, you must use a CPMS to measure and record the hourly average temperature of the adsorption bed or you must monitor the concentration of organic compounds in the exhaust vent stream according to the requirements in § 63.693(d)(4)(iii)(A).

(d) If you use a condenser, you must use a CPMS to measure and record the hourly average condenser exit temperature and determine and record the daily average condenser exit temperature.

(e) If you use a thermal incinerator, you must use a CPMS to measure and record the hourly average firebox temperature and determine and record the daily average firebox temperature.

(f) If you use a catalytic incinerator, you must use a CPMS with two temperature sensors to measure and record the hourly average temperature at the inlet of the catalyst bed, the hourly average temperature at the outlet of the catalyst bed, the hourly average temperature difference across the catalyst bed, and to determine and record the daily average temperature difference across the catalyst bed.

(g) If you use a boiler or process heater to meet an emission limitation, you must use a CPMS to measure and record the hourly average firebox temperature and determine and record the daily average firebox temperature.

(h) If you use a flare, you must monitor the operation of the flare using a heat sensing monitoring device according to the requirements in § 63.693(h)(3).

(i) If you introduce the vent stream into the flame zone of a boiler or process heater according to the requirements in § 63.7925(f)(1), you must use a CPMS to measure and record the combustion zone temperature.

§ 63.7928 How do I demonstrate continuous compliance with the emissions limitations and work practice standards for closed vent systems and control devices?

(a) You must demonstrate continuous compliance with the emissions limitations and work practice standards in this subpart applicable to your closed vent system and control device by meeting the requirements in paragraphs (b) through (j) of this section as applicable to your closed vent system and control device.

(b) You must demonstrate continuous compliance with the closed vent system work practice standards in § 63.7925(c) by meeting the requirements in paragraphs (b)(1) through (7) of this section.

(1) For a closed vent system designed to operate with no detectable organic emissions, visually inspecting the closed vent system at least annually, monitoring after a repair or replacement using the procedures in § 63.694(k), and monitoring at least annually according to the requirements in § 63.695(c)(1)(ii).

(2) For a closed vent system designed to operate below atmospheric pressure, visually inspecting the closed vent system at least annually according to the requirements in § 63.695(c)(2)(ii).

(3) Repairing defects according to the requirements in § 63.695(c)(3).

(4) Keeping records of each inspection that include the information in paragraphs (b)(4)(i) through (iii) of this section:

(i) A closed vent system identification number (or other unique identification description you select).

(ii) Date of each inspection.

(iii) If a defect is detected during an inspection, the location of the defect, a description of the defect, the date of detection, the corrective action taken to repair the defect, and if repair is delayed, the reason for any delay and the date completion of the repair is expected.

(5) If you elect to monitor the closed vent system according to the requirements in § 63.172(f) through (j), recording the information in § 63.181.

(6) If the closed vent system is equipped with a flow indicator, recording the information in § 63.693(c)(ii)(i).

(7) If the closed vent system is equipped with a seal or locking device,

visually inspecting the seal or closure mechanism at least monthly according to the requirements in § 63.693(c)(ii)(i), and recording the results of each inspection.

(c) You must demonstrate continuous compliance of each control device subject to the emissions limits in § 63.7925(d) with the applicable emissions limit in § 63.7925(d) by meeting the requirements in paragraphs (c)(1) and (2) of this section.

(1) For the emission limit in § 63.7925(d)(1), maintaining the reduction in emissions of total HAP listed in Table 1 of this subpart or TOC (minus methane and ethane) from the control device at 95 percent by weight or greater.

(2) For the emission limit in § 63.7925(d)(2), maintaining the concentration of total HAP listed in Table 1 of this subpart or TOC (minus methane and ethane) from the control device at 20 ppmv or less.

(d) You must demonstrate continuous compliance of each control device subject to operating limits in § 63.7925(g) with the applicable limits by meeting the requirements in paragraphs (d)(1) through (4) of this section.

(1) Maintaining each operating limit according to the requirements in § 63.7925(g) as applicable to the control device.

(2) Monitoring and inspecting each control device according to the requirements in § 63.7927(b) through (i) as applicable to the control device.

(3) Operating and maintaining each continuous monitoring system according to the requirements in § 63.7945, and collecting and reducing data according to the requirements in § 63.7946.

(4) Keeping records to document compliance with the requirements of this subpart according to the requirements in § 63.7952.

(e) You must demonstrate continuous compliance with the spent carbon replacement and disposal work practice standards for regenerable carbon adsorption systems in § 63.7925(h)(1) by meeting the requirements in paragraphs (e)(1) through (3) of this section.

(1) Replacing the adsorbent as required by § 63.7925(h)(1)(i).

(2) Following the disposal requirements for spent carbon in § 63.693(d)(4)(ii).

(3) Keeping records to document compliance with the requirements of the work practice standards.

(f) You must demonstrate continuous compliance with the spent carbon replacement and disposal work practice standards for nonregenerable carbon adsorption systems in § 63.7925(h)(2) by meeting the requirements in paragraphs (f)(1) through (3) of this section.

(1) Replacing the adsorbent as required by the work practice standard in § 63.7925(h)(2)(i).

(2) Following the disposal requirements for spent carbon in § 63.693(d)(4)(ii).

(3) Keeping records to document compliance with the requirements of the work practice standards.

(g) You must demonstrate continuous compliance with the spent carbon replacement and disposal work practice standards for nonregenerable carbon adsorption systems in § 63.7925(h)(3) by meeting the requirements in paragraphs (g)(1) through (3) of this section.

(1) Monitoring the concentration level of the organic compounds in the exhaust vent for the carbon adsorption system as required in § 63.7927(c), immediately replacing the carbon canister or carbon in the control device when breakthrough is indicated by the monitoring device, and recording the date of breakthrough and carbon replacement. Or, you must replace the carbon canister or carbon in the control device at regular intervals and record the date of carbon replacement.

(2) Following the disposal requirements for spent carbon in § 63.693(d)(4)(ii).

(3) Keeping records to document compliance with the requirements of the work practice standards.

(h) You must demonstrate continuous compliance with the catalyst replacement work practice standards for catalytic incinerators in § 63.7925(i) by meeting the requirements in paragraphs (h)(1) and (2) of this section.

(1) Replacing the existing catalyst bed as required in § 63.7925(i).

(2) Keeping records to document compliance with the requirements of the work practice standards.

(i) You must demonstrate continuous compliance of each flare with the work practice standards in § 63.7925(e) by meeting the requirements in paragraphs (i)(1) through (5) of this section.

(1) Operating the flare with no visible emissions except for up to 5 minutes in any 2 consecutive hours according to the requirements in § 63.11(b)(4).

(2) Monitoring the presence of a pilot flare according to the requirements in § 63.7927(h) and maintaining a pilot flame and flare flame at all times that emissions are not vented to the flare according to the requirements in § 63.11(b)(5).

(3) Operating the flare with an exit velocity according to the requirements in § 63.11(b)(6) through (8).

(4) Operating the flare with a net heating value of the gas being combusted according to the requirements in § 63.11(b)(6)(ii).

(5) Keeping records to document compliance with the requirements of the work practice standards.

(j) You must demonstrate continuous compliance of each boiler or process heater with the work practice standards in § 63.7925(f) by meeting the requirements in paragraphs (j)(1) through (3) of this section.

(1) For the work practice standards in § 63.7925(f)(1), you must demonstrate continuous compliance by meeting the requirements in paragraphs (j)(1)(i) through (iv).

(i) Maintaining conditions in the combustion chamber at a residence time of 0.5 seconds or longer and at a combustion zone temperature at 760°C or greater whenever the vent stream is introduced to the flame zone of the boiler or process heater.

(ii) Monitoring each boiler or process heater according to the requirements in § 63.7927(i).

(iii) Operating and maintaining each continuous monitoring system according to the requirements in § 63.7945, and collecting and reducing data according to the requirements in § 63.7946.

(iv) Keeping records to document compliance with residence time design requirement.

(2) For the work practice standards in § 63.7925(f)(2), you maintain the boiler or process heater operations such that the vent stream is introduced with the fuel according to the requirements in § 63.693(g)(1)(iv), or that the vent stream is introduced to a boiler or process heater that meets the requirements in § 63.693(g)(1)(v).

(3) For the work practice standard in § 63.7925(f)(3), you remain in compliance with all terms and conditions of the final permit under 40 CFR part 270 and your boiler or process heater complies with the requirements of 40 CFR part 266, subpart H—Hazardous Waste Burned in Boilers and Industrial Furnaces; or in compliance with the interim status requirements of 40 CFR part 266, subpart H, as applicable to your boiler or process heater.

General Compliance Requirements

§ 63.7935 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emissions limitations (including operating limits) and the work practice standards in this subpart at all times,

except during periods of startup, shutdown, and malfunction.

(b) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in § 63.6(e)(1)(i).

(c) You must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in § 63.6(e)(3).

(d) During periods of startup, shutdown, and malfunction, you must operate according to the SSMP.

(e) You must report each instance in which you did not meet each emissions limitation and each operating limit that applies to you. This includes periods of startup, shutdown, and malfunction. You must also report each instance in which you did not meet the requirements for work practice standards that apply to you. These instances are deviations from the emissions limitations and work practice standards in this subpart. These deviations must be reported according to the requirements in § 63.7951.

(f) Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating according to the SSMP. We will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in § 63.6(e).

(g) For each monitoring system required in this section, you must develop and make available for inspection by the permitting authority, upon request, a site-specific monitoring plan that addresses the following:

(1) Installation of the continuous monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (*e.g.*, on or downstream of the last control device).

(2) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction system.

(3) Performance evaluation procedures and acceptance criteria (*e.g.*, calibrations).

(h) In your site-specific monitoring plan, you must also address the following:

(1) Ongoing operation and maintenance procedures according to the general requirements of § 63.8(c)(1), (3), (4)(ii), (7), and (8).

(2) Ongoing data quality assurance procedures according to the general requirements of § 63.8(d).

(3) Ongoing recordkeeping and reporting procedures according to the general requirements of § 63.10(c), (e)(1), and (e)(2)(i).

(i) You must operate and maintain the continuous monitoring system according to the site-specific monitoring plan.

(j) You must conduct a performance evaluation of each continuous monitoring according to your site-specific monitoring plan.

§ 63.7936 What requirements must I meet if I transfer remediation material off-site to another facility?

(a) If you transfer to another facility a remediation material generated by your remediation activities and having an average total VOHAP concentration equal to or greater than 10 ppmw (as determined using the procedures specified in § 63.7943), then you must transfer the remediation material to a facility that meets the requirements in paragraph (b) of this section. You must record the name, street address, and telephone number of the facility where you send this remediation material.

(b) You may elect to transfer the remediation material to one of the following facilities:

(1) A facility where your remediation material will be directly disposed in a landfill or other land disposal unit according to all applicable Federal and State requirements.

(2) A facility subject to 40 CFR part 63, subpart DD where the exemption under § 63.680(b)(2)(iii) is waived and air emissions from the management of your remediation material at the facility are controlled according to all applicable requirements in the subpart for an off-site material. Prior to sending your remediation material, you must obtain a written statement from the owner or operator of the facility to which you send your remediation material acknowledging that the exemption under § 63.680(b)(2)(iii) will be waived for all remediation material received at the facility from you and your material will be managed as an off-site material at the facility according to all applicable requirements. This statement must be signed by the responsible official of the receiving facility, provide the name and address of the receiving facility, and a copy sent to the appropriate EPA Regional Office at the addresses listed in 40 CFR 63.13.

(3) A facility where your remediation material will be managed according to all applicable requirements under this Subpart.

(i) You must prepare and include a notice with each shipment or transport of remediation material from your site. This notice must state that the remediation material contains organic HAP that are to be treated according to the provisions of this subpart. When the transport is continuous or ongoing (for example, discharge to a publicly owned treatment works), the notice must be submitted to the receiving facility owner or operator initially and whenever there is a change in the required treatment.

(ii) You may not transfer the remediation material unless the owner or operator of the facility receiving your remediation material has submitted to the EPA a written certification that he or she will manage remediation material received from you according to the requirements of §§ 63.7885 through 63.7957. The receiving facility owner or operator may revoke the written certification by sending a written statement to the EPA and to you providing at least 90 days notice that they rescind acceptance of responsibility for compliance with the regulatory provisions listed in this section. Upon expiration of the notice period, you may not transfer your remediation material to the facility.

(iii) By providing the written certification to the EPA, the receiving facility owner or operator accepts responsibility for compliance with the regulatory provisions listed in paragraph (b)(3) of this section with respect to any shipment of remediation material covered by the written certification. Failure to abide by any of those provisions with respect to such shipments may result in enforcement action by the EPA against the certifying entity according to the enforcement provisions applicable to violations of these provisions by owners or operators of sources.

(iv) Written certifications and revocation statements to the EPA from the receiving facility owner or operator must be signed by the responsible official of the receiving facility, provide the name and address of the receiving facility, and a copy sent to the appropriate EPA Regional Office at the addresses listed in 40 CFR 63.13. Such written certifications are not transferable.

(c) Acceptance by a facility owner or operator of remediation material from a site remediation subject to this Subpart does not, by itself, require the facility owner or operator to obtain a title V permit under 40 CFR 70.3 or 40 CFR 71.3.

§ 63.7937 How do I demonstrate initial compliance with the general standards?

(a) You must demonstrate initial compliance with the general standards in §§ 63.7884 through 63.7887 that apply to your affected sources by meeting the requirements in paragraphs (b) through (d) of this section, as applicable to you.

(b) You must demonstrate initial compliance with the general standards in § 63.7885 that apply to your affected process vents by meeting the requirements in paragraphs (b)(1) through (4) of this section, as applicable to your process vents.

(1) If HAP emissions are controlled from the affected process vents according to the emission limitations and work practice standards specified in § 63.7885(b)(1), you have met the initial compliance requirements in § 63.7891.

(2) If the remediation material treated or managed by the process vented through the affected process vents has an average total VOHAP less than 10 ppmw according to § 63.7885(b)(2), you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have determined, according to the procedures § 63.7943, and recorded the average VOHAP concentration of the remediation material placed in the affected remediation material management unit.

(3) If HAP emissions are controlled from the affected process vents to meet standards in another subpart under 40 CFR part 61 or 40 CFR part 63 according to § 63.7885(b)(3), you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (b)(3)(i) and (ii) of this section.

(i) You include in your statement the citations for the specific emission limitations and work practice standards that apply to the process vents under the subpart in 40 CFR part 61 or 40 CFR part 63 that the vents are also subject.

(ii) You are complying with all applicable emissions limitations and work practice standards specified by the applicable subpart.

(4) For each process vent exempted according to § 63.7885(c), you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (b)(4)(i) and (ii) of this section.

(i) You identify in your statement each process vent that qualifies for an exemption and the exemption conditions in § 63.7885(c)(1)(i) or (ii) that apply to each exempted process vent.

(ii) You have performed the measurements and prepared the documentation required in § 63.7885(c)(2) that demonstrates that each exempted process vent stream meets the applicable exemption conditions in § 63.7885(c)(1).

(c) You must demonstrate initial compliance with the general standards in § 63.7886 that apply to your affected remediation material management units by meeting the requirements in paragraphs (c)(1) through (6) of this section, as applicable to your remediation material management units.

(1) If the remediation material management unit uses air pollution controls according to the standards specified in § 63.7886(b)(1), you have met the initial compliance requirements applicable to the remediation material management unit in §§ 63.7896, 63.7901, 63.7906, 63.7911, or 63.7816.

(2) If the remediation material managed in the affected remediation material managements has an average total VOHAP less than 500 ppmw according to § 63.7886(b)(2), you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have determined, according to the procedures § 63.7943, and recorded the average VOHAP concentration of the remediation material placed in the affected remediation material management unit.

(3) If HAP emissions are controlled from the affected remediation material management units to meet standards in another subpart under 40 CFR part 61 or 40 CFR part 63 according to § 63.7886(b)(3), you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (c)(3)(i) and (ii) of this section.

(i) You include in your statement the citations for the specific emission limitations and work practice standards that apply to the remediation material management units under the subpart in 40 CFR part 61 or 40 CFR part 63 that the units are also subject.

(ii) You are complying with all applicable emissions limitations and work practice standards specified by the applicable subpart.

(4) If HAP emissions are controlled from the affected remediation material management unit that is an open tank or surface impoundment used for a biological treatment process according to § 63.7886(b)(4), you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (c)(4)(i) and (ii) of this section.

(i) You have performed the measurements and prepared the documentation required in § 63.7886(b)(4)(i) that demonstrates that each unit meets the applicable performance levels.

(ii) You will monitor the biological treatment process conducted in each unit according the requirements in § 63.7886(4)(i).

(5) For each remediation material management unit used for cleanup of radioactive mixed waste and exempted according to § 63.7886(c), you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (c)(5)(i) and (ii) of this section.

(i) You include in your statement the citations for the specific requirements that apply to the remediation material management units under regulations, directives, and other requirements under the Atomic Energy Act, the Nuclear Waste Policy Act, or the Waste Isolation Pilot Plant Land Withdrawal Act.

(ii) You are complying with all requirements that apply to the remediation material management units under the applicable regulations or directives.

(6) For each remediation material management unit exempted according to § 63.7886(d), you have submitted as part of your notification of compliance status, specified in § 63.7950, a signed statement that you have met the requirements in paragraphs (c)(6)(i) and (ii) of this section.

(i) You have designated according to the requirements in § 63.7886(d)(1) each of the remediation material management units you are selecting to be exempted.

(ii) You have performed an initial determination and prepared the documentation required in § 63.7886(d)(2) that demonstrates that the total annual HAP quantity (based on the HAP listed in Table 1 of this subpart) in the remediation material placed in all of the designated exempted remediation material management units will be less than 1 Mg/yr.

(d) You must demonstrate initial compliance with the general standards in § 63.7887 that apply to your affected equipment leak sources by meeting the requirements in § 63.7921.

§ 63.7938 How do I demonstrate continuous compliance with the general standards?

(a) You must demonstrate continuous compliance with the general standards in §§ 63.7884 through 63.7887 that apply to your affected sources by meeting the requirements in paragraphs (b) through (d) of this section, as applicable to you.

(b) You have demonstrated continuous compliance with the general standards in § 63.7885 that apply to your affected process vents by meeting the requirements in paragraphs (b)(1) through (4) of this section, as applicable to your process vents.

(1) If HAP emissions are controlled from the affected process vents according to the emission limitations and work practice standards specified in § 63.7885(b)(1), you must demonstrate continuous compliance by meeting the requirements in § 63.7893.

(2) If the remediation material treated or managed by the process vented through the affected process vents has an average total VOHAP less than 10 ppmw according to § 63.7885(b)(2), you must demonstrate continuous compliance by performing a new determination and preparing new documentation as required in § 63.7886(c)(2) to show that the total VOHAP concentration of the remediation material remains less than 10 ppmw.

(3) If HAP emissions are controlled from the affected process vents to meet standards in another subpart under 40 CFR part 61 or 40 CFR part 63 according to § 63.7885(b)(3), you must demonstrate continuous compliance by complying with all applicable emissions limitations and work practice standards specified by the applicable subpart.

(4) For each process vent exempted according to § 63.7885(c), you must demonstrate continuous compliance by performing new measurements and preparing new documentation as required in § 63.7885(c)(2) that demonstrates that each exempted process vent stream meets the applicable exemption conditions in § 63.7885(c)(1).

(c) You must demonstrate continuous compliance with the general standards in § 63.7886 that apply to your affected remediation material management units by meeting the requirements in paragraphs (c)(1) through (6) of this section, as applicable to your remediation material management units.

(1) If the remediation material management unit uses air pollution controls according to the standards specified in § 63.7886(b)(1), you must demonstrate continuous compliance by meeting the requirements applicable to the remediation material management unit in §§ 63.7898, 63.7903, 63.7908, 63.7913, or 63.7818.

(2) If the remediation material managed in the affected remediation material managements has an average total VOHAP concentration less than 500 ppmw according to § 63.7886(b)(2), you must demonstrate continuous compliance by performing a new determination and preparing new documentation as required in § 63.7886(c)(2) to show that the total VOHAP concentration of the remediation material remains less than 500 ppmw.

(3) If HAP emissions are controlled from the affected remediation material management units to meet standards in another subpart under 40 CFR part 61 or 40 CFR part 63 according to § 63.7886(b)(3), you must demonstrate continuous compliance by meeting all applicable emissions limitations and work practice standards specified by the applicable subpart.

(4) If HAP emissions are controlled from the affected remediation material management unit that is an open tank or surface impoundment used for a biological treatment process according to § 63.7886(b)(4), you must demonstrate continuous compliance by meeting the requirements in paragraphs (c)(4)(i) and (ii) of this section.

(i) Performing new measurements and preparing new documentation as required in § 63.7886(4)(i) that demonstrates that each unit meets the applicable performance levels.

(ii) Monitoring the biological treatment process conducted in each unit according the requirements in § 63.7886(4)(i).

(5) For each remediation material management unit used for cleanup of radioactive mixed waste and exempted according to § 63.7886(c), you must demonstrate continuous compliance by meeting all requirements that apply to the remediation material management units under the applicable regulations or directives.

(6) For each remediation material management unit exempted according to § 63.7886(d), you must demonstrate continuous compliance by performing new measurements and preparing new documentation as required in § 63.7886(d)(2) to show that the total annual HAP quantity (based on the HAP listed in Table 1 of this subpart) in the remediation material placed in all of the designated exempted remediation material management units remains less than 1 Mg/yr.

(d) You have demonstrated continuous compliance with the general standards in § 63.7887 that apply to your affected equipment leak sources by meeting the requirements in § 63.7923.

Performance Tests

§ 63.7940 By what date must I conduct performance tests or other initial compliance demonstrations?

(a) You must conduct a performance test or design evaluation for each existing affected source within 180 calendar days after the compliance date that is specified in § 63.7883.

(b) For each work practice standard that applies to you where initial compliance is not demonstrated using a performance test or design evaluation, you must demonstrate initial compliance within 30 calendar days after the compliance date that is specified in § 63.7883 for your affected source.

(c) For new sources, you must conduct initial performance tests and other initial compliance demonstrations according to the provisions in § 63.7(a)(2)(i) and (ii).

§ 63.7941 How do I conduct a performance test, design evaluation, or other type of initial compliance demonstration?

(a) You must conduct a performance test or design evaluation to demonstrate initial compliance for each new or existing affected source that is subject to an emission limit in this subpart. You must report the results of the performance test or design evaluation according to the requirements in § 63.7950(e)(1).

(b) If you choose to conduct a performance test to demonstrate initial compliance, you must conduct the test according to the requirements in § 63.7(e)(1) and paragraphs (b)(1) through (5) of this section.

(1) You must conduct three separate test runs for each performance test required in this section, as specified in § 63.7(e)(3). Each test run must last at least 1 hour.

(2) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 63.7(e)(1).

(3) You must conduct each performance test using the test methods and procedures in § 63.694(l).

(4) Follow the procedures in paragraphs (b)(4)(i) through (iii) of this section to determine compliance with the facility-wide total organic mass emissions rate in § 63.7890(a)(1)(i).

(i) Determine compliance with the total organic mass flow rate using Equation 1 of this section as follows:

$$E_h = \left(0.0416 \times 10^{-6}\right) Q_{sd} \sum_{i=1}^{n} \left(C_i \times MW_i\right) \qquad \text{(Eq. 1)}$$

Where:

E_h = Total organic mass flow rate, kg/h;

Q_{sd} = Volumetric flow rate of gases entering or exiting control device (or exiting the process vent if no control device is used), as determined by Method 2 of 40 CFR part 60, appendix A, dscm/h;

n = Number of organic compounds in the vent gas;

C_i = Organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Method 18 of 40 CFR part 60, appendix A;

MW_i = Molecular weight of organic compound i in the vent gas,kg/kg-mol;

(ii) Determine compliance with the annual total organic emissions rate using Equation 2 of this section as follows:

$$E_A = E_h \times H \qquad \text{(Eq. 2)}$$

Where:

E_A = Total organic mass emissions rate, kilograms per year;

E_h = Total organic mass flow rate for the process vent, kg/h;

H = Total annual hours of operation for the affected unit, h.

(iii) Determine compliance with the total organic emissions limit from all affected process vents at the facility by summing the total hourly organic mass emissions rates (E_h as determined in Equation 1 of this section) and summing the total annual organic mass emissions rates (E_A, as determined in Equation 2 of this section) for all affected process vents at the facility.

(5) Determine compliance with the 95 percent reduction limit in § 63.7890(a)(2)(i) for the combination of all affected process vents at the facility using Equations 3 and 4 of this section to calculate control device inlet and outlet concentrations and Equation 5 of this section to calculate control device emission reductions for process vents as follows:

$$E_i = K_2 \left(\sum_{j=1}^{n} C_{ij} M_{ij} \right) Q_i \qquad \text{(Eq. 3)}$$

$$E_o = K_2 \left(\sum_{j=1}^{n} C_{oj} M_{oj} \right) Q_o \qquad \text{(Eq. 4)}$$

Where:

C_{ij}, C_{oj} = Concentration of sample component j of the gas stream at the inlet and outlet of the control device, dry basis, parts per million by volume. For uncontrolled vents, $C_{ij} = C_{oj}$ and equal the concentration exiting the vent;

E_i, E_o = Mass rate of total organic compounds (TOC) (minus methane and ethane) or total HAP, from Table 1 of this subpart, at the inlet and outlet of the control device, respectively, dry basis, kilogram per hour. For uncontrolled vents, $E_i = E_o$ and equal the concentration exiting the vent;

M_{ij}, M_{oj} = Molecular weight of sample component j of the gas stream at the inlet and outlet of the control device, respectively, gram/gram-mole. For uncontrolled vents, $M_{ij} = M_{oj}$ and equal the gas stream molecular weight exiting the vent;

Q_i, Q_o = Flowrate of gas stream at the inlet and outlet of the control device, respectively, dry standard cubic meters per minute (dscm/min). For uncontrolled vents, $Q_i = Q_o$ and equals the flowrate exiting the vent;

K_2 = Constant, 2.494×10^{-6} (parts per million)$^{-1}$ (gram-mole per standard cubic meter) (kilogram/gram)(minute/hour, where standard temperature (gram-mole per standard cubic meter) is 20°C);

n = the number of components in the sample.

$$R_v = \frac{\sum_{j=1}^{n} E_i - \sum_{j=1}^{n} E_o}{\sum_{j=1}^{n} E_i} \times 100 \qquad \text{(Eq. 5)}$$

Where:

R_v = Overall emissions reduction for all affected process vents, percent

E_i = Mass rate of TOC (minus methane and ethane) or total HAP, from Table 1 of this subpart, at the inlet to the control device, or exiting the vent for uncontrolled vents, as calculated in this section, kilograms TOC per hour or kilograms HAP per hour;

E_o = Mass rate of TOC (minus methane and ethane) or total HAP, from Table 1 of this subpart, at the outlet to the control device, or exiting the vent for uncontrolled vents, as calculated in this section, kilograms TOC per hour or kilograms HAP per hour. For vents without a control device, $E_o = E_i$;

n = number of affected source process vents.

(c) If you use a carbon adsorption system, condenser, vapor incinerator, boiler, or process heater to meet an emission limit in this subpart, you may choose to perform a design evaluation to demonstrate initial compliance instead of a performance test. You must perform a design evaluation according to the general requirements in § 63.693(b)(8) and the specific requirements in § 63.694(d)(2)(ii) for a carbon adsorption system (including establishing carbon replacement schedules and associated requirements), § 63.694(e)(2)(ii) for a condenser, § 63.694(f)(2)(ii) for a vapor incinerator, or § 63.694(g)(2)(i)(B) for a boiler or process heater.

(d) During the performance test or design evaluation, you must collect the appropriate operating parameter monitoring system data, average the operating parameter data over each test run, and set operating limits, whether a minimum or maximum value, based on the average of values for each of the three test runs. If you use a control device design analysis to demonstrate control device performance, then the minimum or maximum operating parameter value must be established based on the control device design analysis and supplemented, as necessary, by the control device manufacturer recommendations or other applicable information.

(e) If you control air emissions from an affected source by introducing the vent stream into the flame zone of a boiler or process heater according to the requirements in § 63.693(g)(1)(iii), you must conduct a performance test or design evaluation to demonstrate that the boiler or process heater meets the applicable emission limit while operating at a residence time of 0.5 seconds or greater and at a combustion zone temperature of 760°C or higher.

(f) You must conduct a performance evaluation for each continuous monitoring system according to the requirements in § 63.8(e).

(g) If you are required to conduct a visual inspection of an affected source, you must conduct the inspection according to the procedures in § 63.906(a)(1) for Tank Level 1 controls, § 63.1063(d) for Tank Level 2 controls, § 63.946(a) for a surface impoundment equipped with a floating membrane

cover, § 63.946(b) for a surface impoundment equipped with a cover and vented to a control device, § 63.1047(a) for a separator with a fixed roof, § 63.1047(c) for a separator equipped with a fixed roof and vented to a control device, § 63.695(c)(1)(i) or (c)(2)(i) for a closed vent system, and § 63.964(a) for individual drain systems.

(h) If you use Container Level 1 controls, you must conduct a test to demonstrate that the container operates with no detectable organic emissions using Method 21 (40 CFR part 60, appendix A) and the procedures in § 63.925(a).

(i) If you use Container Level 2 controls, you must conduct a test to demonstrate that the container operates with no detectable organic emissions or that the container is vapor-tight. You must conduct the test using Method 21 (40 CFR part 60, appendix A) and the procedures in § 63.925(a) to demonstrate that the container operates with no detectable organic emissions or Method 27 (40 CFR part 60, appendix A) and the procedures in § 63.925(b) to demonstrate that the container is vapor-tight.

(j) If you locate an affected source inside a permanent total enclosure that is vented to a control device, you must demonstrate that the enclosure meets the verification criteria in section 5 of Procedure T in 40 CFR 52.741, appendix B.

(k) If you use a fixed roof or a floating roof to control air emissions from a separator, you must conduct a test to demonstrate that the roof operates with no detectable organic emissions using Method 21 (40 CFR part 60, appendix A) and the procedures in § 63.1046(a). If you use a floating roof, you also must measure the seal gaps according to the procedures in § 63.1046(b).

(l) If you use a flare to control air emissions, you must conduct a visible emissions test using Method 22 in 40 CFR part 60, appendix A, and the procedures in § 63.11(b)(4).

(m) For each initial compliance demonstration that requires a performance test or design evaluation, you must report the results in your notification of compliance status according to the requirements in § 63.7950(e)(1). For each initial compliance demonstration that does not require a performance test or design evaluation, you must submit a notification of compliance status according to the requirements in § 63.7950(e)(2).

§ 63.7942 When must I conduct subsequent performance tests?

For non-flare control devices, you must conduct performance tests at any time the EPA requires you to according to § 63.7(3).

§ 63.7943 How do I determine the average VOHAP concentration of my remediation material?

(a) General requirements. You must determine the average total VOHAP concentration of a remediation material at the point-of-extraction using either direct measurement as specified in paragraph (b) of this section or by knowledge as specified in paragraph (c) of this section.

(b) Direct measurement. To determine the average total VOHAP concentration of a remediation material at the point-of-extraction using direct measurement, you must use the procedures in paragraphs (b)(1) through (3) of this section.

(1) Sampling. Samples of each material stream must be collected at the point-of-extraction in a manner such that volatilization of organics contained in the sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.

(i) The averaging period to be used for determining the average total VOHAP concentration for the material stream on a mass-weighted average basis must be designated and recorded. The averaging period can represent any time interval that you determine is appropriate for the material stream but must not exceed 1 year. For streams that are combined, an averaging period representative for all streams must be selected.

(ii) No less than four samples must be collected to represent the complete range of HAP compositions and HAP quantities that occur in each material stream during the entire averaging period due to normal variations in the material stream(s). Examples of such normal variations are variation of the HAP concentration within a contamination area.

(iii) All samples must be collected and handled according to written procedures you prepare and document in a site sampling plan. This plan must describe the procedure by which representative samples of the material stream(s) are collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan must be maintained on site in the facility operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures according to the guidance found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW–846 or Method 25D in 40 CFR part 60, appendix A.

(2) Analysis. Each collected sample must be prepared and analyzed according to either one of the methods listed in § 63.694(b)(2)(ii), or any current EPA Contracts Lab Program method (or future revisions) capable of identifying all the HAP in Table 1 of this subpart.

(3) Calculations. The average total VOHAP concentration ($\bar{C}$) on a mass-weighted basis must be calculated by using the results for all samples analyzed according to paragraph (c)(2) of this section and Equation 1 of this section as follows:

$$\bar{C} = \frac{1}{Q_T} \times \sum_{i=1}^{n} (Q_i \times C_i) \qquad \text{(Eq. 1)}$$

Where:

$\bar{C}$ = Average VOHAP concentration of the material on a mass-weighted basis, ppmw.

i = Individual sample "i" of the material.

n = Total number of samples of the material collected (at least 4 per stream) for the averaging period (not to exceed 1 year).

Q_i = Mass quantity of material stream represented by C_i, kilograms per hour (kg/hr).

Q_T = Total mass quantity of all material during the averaging period, kg/hr.

C_i = Measured VOHAP concentration of sample "i" as determined according to the requirements of paragraph (a)(3)(ii) of this section, ppmw.

(c) Knowledge of the material. To determine the average total VOHAP concentration of a remediation material at the point-of-extraction using knowledge, you must use the procedures in paragraphs (c)(1) through (3) of this section.

(1) Documentation must be prepared that presents the information used as the basis for your knowledge of the material stream's average VOHAP concentration. Examples of information that may be used as the basis for knowledge include: material balances for the source(s) generating each material stream; species-specific chemical test data for the material stream from previous testing that are still applicable to the current material stream; test data for material from the contamination area(s) being remediated.

(2) If test data are used as the basis for knowledge, then you must document

the test method, sampling protocol, and the means by which sampling variability and analytical variability are accounted for in the determination of the average VOHAP concentration. For example, you may use HAP concentration test data for the material stream that are validated according to Method 301 in 40 CFR part 63, appendix A as the basis for knowledge of the material. This information must be provided for each material stream where streams are combined.

(3) If you use species-specific chemical concentration test data as the basis for knowledge of the material, you may adjust the test data to the corresponding average VOHAP concentration value which would be obtained had the material samples been analyzed using Method 305. To adjust these data, the measured concentration for each individual HAP chemical species contained in the material is multiplied by the appropriate species-specific adjustment factor (f_{m305}) listed in Table 1 of this subpart.

(d) In the event that you and us disagree on a determination using knowledge of the average total VOHAP concentration for a remediation material, then the results from a determination of VOHAP concentration using direct measurement by Method 305 in 40 CFR part 60 appendix A, as specified in paragraph (b) of this section, will be used to determine compliance with the applicable requirements of this subpart. We may perform or request that you perform this determination using direct measurement.

§ 63.7944 How do I determine the maximum HAP vapor pressure of my remediation material?

(a) You must determine the maximum HAP vapor pressure of your remediation material using either direct measurement as specified in paragraph (b) of this section or by knowledge as specified in paragraph (c) of this section.

(b) Direct measurement to determine the maximum HAP vapor pressure.

(1) Sampling. A sufficient number of samples must be collected to be representative of the remediation material contained in the tank. All samples must be collected and handled according to written procedures prepared by you and documented in a site sampling plan. This plan must describe the procedure by which representative samples of the remediation material are collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan must be maintained on site in the facility site operating records. An example of an acceptable sampling plan includes a plan incorporating sample collection and handling procedures according to the guidance found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW–846 or Method 25D in 40 CFR part 60, appendix A.

(2) Analysis. Any one of the following methods may be used to analyze the samples and compute the maximum HAP vapor pressure of the remediation material:

(i) Method 25E in 40 CFR part 60 appendix A;

(ii) Methods described in American Petroleum Institute Bulletin 2517, "Evaporation Loss from External Floating Roof Tanks,";

(iii) Methods obtained from standard reference texts;

(iv) ASTM Method 2879–83; or

(v) Any other method approved by the Administrator.

(c) Use of knowledge to determine the maximum HAP vapor pressure. Documentation must be prepared and recorded that presents the information used as the basis for your knowledge that the maximum HAP vapor pressure of the remediation material is less than the maximum vapor pressure limit listed in Table 2 of this subpart for the applicable tank design capacity category.

(d) In the event that you and us disagree on a determination using knowledge of the maximum HAP vapor pressure of the remediation material, then the results from a determination of maximum HAP vapor pressure using direct measurement by Method 25E in 40 CFR part 60 appendix A, as specified in paragraph (b) of this section, will be used to determine compliance with the applicable requirements of this subpart. We may perform or request that you perform this determination using direct measurement.

Continuous Monitoring Systems

§ 63.7945 What are my monitoring installation, operation, and maintenance requirements?

(a) Each CPMS must meet the requirements in paragraphs (a)(1) through (4) of this section.

(1) Complete a minimum of one cycle of operation for each successive 15-minute period.

(2) To calculate a valid hourly value, you must have at least three of four equally spaced data values (or at least two, if that condition is included to allow for periodic calibration checks) for that hour from a CPMS that is not out of control according to the monitoring plan referenced in § 63.7935.

(3) To calculate the average emissions for each averaging period, you must have at least 75 percent of the hourly averages for that period using only block hourly average values that are based on valid data (*i.e.*, not from out-of-control periods).

(4) Unless otherwise specified, each CPMS must determine the hourly average of all recorded readings and daily average, if required.

(b) You must record the results of each inspection, calibration, and validation check.

(c) You must conduct a performance evaluation for each CPMS according to the requirements in § 63.8(e) and your site-specific monitoring plan.

§ 63.7946 How do I monitor and collect data to demonstrate continuous compliance?

(a) You must monitor and collect data according to this section and your site-specific monitoring plan required in § 63.7935.

(b) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) at all times that the affected source is operating.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, out of control periods and required quality assurance or control activities in data averages and calculations used to report emissions or operating levels, nor may such data be used in fulfilling a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

§ 63.7947 What are my monitoring alternatives?

(a) As an alternative to the parametric monitoring required in this subpart, you may install, calibrate, and operate a continuous emission monitoring system (CEMS) to measure the control device outlet total organic emissions or organic HAP emissions concentration.

(1) The CEMS used on combustion control devices must include a diluent gas monitoring system (for O_2 or CO_2) with the pollutant monitoring system in order to correct for dilution (*e.g.*, to 0 percent excess air).

(2) Each CEMS must complete a minimum of one cycle of operation

(sampling, analyzing, and data recording) for each successive 15-minute period. Data must be reduced as specified in § 63.8(g)(2).

(3) You must conduct a performance evaluation of the CEMS according to the requirements in § 63.8 and Performance Specification 8 (for a total organic emissions CEMS) or Performance Specification 9 (for a HAP emissions CEMS) and Performance Specification 3 (for an O_2 or CO_2 CEMS) of 40 CFR part 60, appendix B. The relative accuracy provision of Performance Specification 8, sections 2.4 and 3 need not be conducted.

(4) You must prepare a site-specific monitoring plan for operating, calibrating, and verifying the operation of your CEMS according to the requirements in §§ 63.8(c), (d), and (e).

(5) You must establish the emissions concentration operating limit according to paragraphs (a)(5)(i) and (ii) of this section.

(i) During the performance test, you must monitor and record the total organic or HAP emissions concentration at least once every 15 minutes during each of the three test runs.

(ii) Use the data collected during the performance test to calculate and record the average total organic or HAP emissions concentration maintained during the performance test. The average total organic or HAP emissions concentration, corrected for dilution as appropriate, is the maximum operating limit for your control device.

(b) You must maintain the daily (24-hour) average total organic or HAP emissions concentration in the exhaust vent stream of the control device outlet less than or equal to the site-specific operating limit established during the performance test.

Notification, Reports, and Records

§ 63.7950 What notifications must I submit and when?

(a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8(e), 63.8(f)(4) and (6), and 63.9(b) through (h) that apply to you.

(b) As specified in § 63.9(b)(2), if you start up your affected source before October 8, 2003, you must submit an Initial Notification not later than 120 calendar days after October 8, 2003.

(c) As specified in § 63.9(b)(3), if you start up your new or reconstructed affected source on or after October 8, 2003, you must submit an Initial Notification no later than 120 calendar days after initial startup.

(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required in § 63.7(b)(1).

(e) If you are required to conduct a performance test, design evaluation, or other initial compliance demonstration, you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii).

(1) For each initial compliance demonstration that includes a performance test or design evaluation, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to § 63.10(d)(2). You must submit the complete design evaluation and supporting documentation.

(2) For each initial compliance demonstration that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th calendar day following the completion of the initial compliance demonstration.

(f) You must provide written notification to the Administrator of the alternative standard selected under § 63.1006(b)(5) or (6) before implementing either of the provisions.

§ 63.7951 What reports must I submit and when?

(a) Compliance report due dates. Unless the Administrator has approved a different schedule, you must submit a semiannual compliance report to your permitting authority according to the requirements specified in paragraphs (a)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.7883 and ending on June 30 or December 31, whichever date comes first after the compliance date that is specified for your affected source.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after your first compliance report is due.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of the dates specified in paragraphs (a)(1) through (4) of this section.

(b) Compliance report contents. Each compliance report must include the information specified in paragraphs (b)(1) through (3) of this section and, as applicable, paragraphs (b)(4) through (9) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a startup, shutdown, or malfunction during the reporting period and you took action consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in § 63.10(d)(5)(i).

(5) If there were no deviations from any emissions limitations (including operating limit), work practice standards, or operation and maintenance requirements, a statement that there were no deviations from the emissions limitations, work practice standards, or operation and maintenance requirements during the reporting period.

(6) If there were no periods during which a continuous monitoring system (including a CPMS or CEMS) was out-of-control as specified by § 63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.

(7) For each deviation from an emissions limitation (including an operating limit) that occurs at an affected source for which you are not using a continuous monitoring system (including a CPMS or CEMS) to comply with an emissions limitation or work practice standard required in this subpart, the compliance report must contain the information specified in paragraphs (b)(1) through (4) and (b)(7)(i) and (ii) of this section. This requirement includes periods of startup, shutdown, and malfunction.

(i) The total operating time of each affected source during the reporting period.

(ii) Information on the number, duration, and cause of deviations (including unknown cause) as applicable and the corrective action taken.

(8) For each deviation from an emissions limitation (including an operating limit) or work practice standard occurring at an affected source where you are using a continuous monitoring system (including a CPMS or CEMS) to comply with the emissions limitations or work practice standard in this subpart, you must include the information specified in paragraphs (b)(1) through (4) and (b)(8)(i) through (xi) of this section. This requirement includes periods of startup, shutdown, and malfunction.

(i) The date and time that each malfunction started and stopped.

(ii) The date and time that each continuous monitoring system was inoperative, except for zero (low-level) and high-level checks.

(iii) The date, time, and duration that each continuous monitoring system was out-of-control, including the information in § 63.8(c)(8).

(iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(v) A summary of the total duration of the deviations during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(vi) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and unknown causes.

(vii) A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period.

(viii) A brief description of the process units.

(ix) A brief description of the continuous monitoring system.

(x) The date of the latest continuous monitoring system certification or audit.

(xi) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.

(9) You must include the information on equipment leaks required in periodic reports by § 63.1018(a) or § 63.1039(b).

(c) Immediate startup, shutdown, and malfunction report. If you had a startup, shutdown, or malfunction during the semiannual reporting period that was not consistent with your startup, shutdown, and malfunction plan, you must submit an immediate startup, shutdown, and malfunction report according to the requirements of § 63.10(d)(5)(ii) .

(d) Part 70 monitoring report. If you have obtained a title V operating permit for an affected source pursuant to 40 CFR part 70 or 40 CFR part 71, you must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If you submit a compliance report for an affected source along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all the required information concerning deviations from any emissions limitation or operation and maintenance requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements for an affected source to your permitting authority.

§ 63.7952 What records must I keep?

(a) You must keep the records specified in paragraphs (a)(1) through (4) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in § 63.10(b)(1) and (b)(2)(xiv).

(2) The records in § 63.6(e)(3)(iii) through (v) related to startups, shutdowns, and malfunctions.

(3) Results of performance tests and performance evaluations as required by § 63.10(b)(2)(viii).

(4) The records of initial and ongoing determinations for affected sources that are exempt from control requirements under this subpart.

(b) For each continuous monitoring system, you must keep the records as described in paragraphs (b)(1) and (2) of this section.

(1) Records described in § 63.10(b)(2)(vi) through (xi) that apply to your continuous monitoring system.

(2) Performance evaluation plans, including previous (i.e., superseded) versions of the plan as required in § 63.8(d)(3).

(c) You must keep the records required by this subpart to show continuous compliance with each emissions limitation, work practice standard, and operation and maintenance requirement that applies to you.

(d) You must record, on a semiannual basis, the information in § 63.696(g) for planned routine maintenance of a control device for emissions from process vents.

§ 63.7953 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1).

(b) As specified in § 63.10(b)(1), you must keep your files of all information (including all reports and notifications) for 5 years following the date of each occurrence, measurement, maintenance, action taken to correct the cause of a deviation, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records off-site for the remaining 3 years.

(d) If, after the remediation activity is completed, there is no other remediation activity at the facility, and you are no longer the owner of the facility, you may keep all records for the completed remediation activity at an off-site location provided you notify the Administrator in writing of the name, address and contact person for the off-site location.

Other Requirements and Information

§ 63.7955 What parts of the General Provisions apply to me?

Table 3 of this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

§ 63.7956 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the EPA, or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency, in addition to the EPA, has the authority to implement and enforce this subpart. You should contact your EPA Regional Office (see list in § 63.13) to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under section 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the

Administrator of EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that cannot be delegated to State, local, or tribal agencies are listed in paragraphs (a)(1) through (4) of this section.

(1) Approval of alternatives to the non-opacity emissions limitations and work practice standards in this subpart under § 63.6(g).

(2) Approval of major changes to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(3) Approval of major changes to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major changes to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.7957 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in § 63.2, and in this section. If a term is defined both in this section and in another subpart cross-referenced by this subpart, then the term will have the meaning given in this section for purposes of this subpart.

Boiler means an enclosed combustion device that extracts useful energy in the form of steam and is not an incinerator or a process heater.

Closed vent system means a system that is not open to the atmosphere and is composed of hard-piping, ductwork, connections, and, if necessary, fans, blowers, or other flow-inducing device that conveys gas or vapor from an emissions point to a control device.

Closure device means a cap, hatch, lid, plug, seal, valve, or other type of fitting that prevents or reduces air pollutant emissions to the atmosphere by blocking an opening in a cover when the device is secured in the closed position. Closure devices include devices that are detachable from the cover (*e.g.*, a sampling port cap), manually operated (*e.g.*, a hinged access lid or hatch), or automatically operated (*e.g.*, a spring-loaded pressure relief valve).

Container means a portable unit used to hold material. Examples of containers include, but are not limited to drums, dumpsters, roll-off boxes, bulk cargo containers commonly known as portable tanks or totes, cargo tank trucks, dump trucks, and rail cars. For the purpose of this subpart, a front-end loader, excavator, backhoe, or other type of self-propelled excavation equipment is not a container.

Continuous record means documentation of data values measured at least once every 15 minutes and recorded at the frequency specified in this subpart.

Continuous recorder means a data recording device that either records an instantaneous data value at least once every 15 minutes or records 15-minutes or more frequent block averages.

Control device means equipment used recovering, removing, oxidizing, or destroying organic vapors. Examples of such equipment include but are not limited to carbon adsorbers, condensers, vapor incinerators, flares, boilers, and process heaters.

Cover means a device that prevents or reduces air pollutant emissions to the atmosphere by forming a continuous barrier over the remediation material managed in a unit. A cover may have openings (such as access hatches, sampling ports, gauge wells) that are necessary for operation, inspection, maintenance, and repair of the unit on which the cover is used. A cover may be a separate piece of equipment which can be detached and removed from the unit (such as a tarp) or a cover may be formed by structural features permanently integrated into the design of the unit.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emissions limitation (including any operating limit), or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emissions limitation,(including any operating limit), or work practice standard in this subpart during startup, shutdown, or malfunction, regardless or whether or not such failure is permitted by this subpart.

Emissions limitation means any emissions limit, opacity limit, operating limit, or visible emissions limit.

Emissions point means an individual tank, surface impoundment, container, oil-water, organic-water separator, transfer system, vent, or enclosure.

Enclosure means a structure that surrounds a tank or container, captures organic vapors emitted from the tank or container, and vents the captured vapor through a closed vent system to a control device.

Equipment means each pump, pressure relief device, sampling connection system, valve, and connector used in remediation material service at a facility.

External floating roof means a pontoon-type or double-deck type cover that rests on the liquid surface in a tank with no fixed roof.

Facility means all contiguous or adjoining property that is under common control including properties that are separated only by a road or other public right-of-way. Common control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, or any combination thereof. A unit or group of units within a contiguous property that are not under common control (*e.g.*, a wastewater treatment unit located at the facility but is owned by a different company) is a different facility.

Fixed roof means a cover that is mounted on a unit in a stationary position and does not move with fluctuations in the level of the liquid managed in the unit.

Flame zone means the portion of the combustion chamber in a boiler or process heater occupied by the flame envelope.

Floating roof means a cover consisting of a double deck, pontoon single deck, or internal floating cover which rests upon and is supported by the liquid being contained, and is equipped with a continuous seal.

Flow indicator means a device that indicates whether gas is flowing, or whether the valve position would allow gas to flow in a bypass line.

Hard-piping means pipe or tubing that is manufactured and properly installed according to relevant standards and good engineering practices.

Individual drain system means a stationary system used to convey wastewater streams or residuals to a remediation material management unit or to discharge or disposal. The term includes hard-piping, all drains and junction boxes, together with their associated sewer lines and other junction boxes (*e.g.*, manholes, sumps, and lift stations) conveying wastewater streams or residuals. For the purpose of this subpart, an individual drain system is not a drain and collection system that is designed and operated for the sole purpose of collecting rainfall runoff (*e.g.*, stormwater sewer system) and is segregated from all other individual drain systems.

Internal floating roof means a cover that rests or floats on the liquid surface (but not necessarily in complete contact with it inside a tank that has a fixed roof).

Maximum HAP vapor pressure means the sum of the individual HAP equilibrium partial pressure exerted by

remediation material at the temperature equal to either: the monthly average temperature as reported by the National Weather Service when the remediation material is stored or treated at ambient temperature; or the highest calendar-month average temperature of the remediation material when the remediation material is stored at temperatures above the ambient temperature or when the remediation material is stored or treated at temperatures below the ambient temperature. For the purpose of this subpart, maximum HAP vapor pressure is determined using the procedures specified in § 63.7944.

No detectable organic emissions means no escape of organics to the atmosphere as determined using the procedure specified in § 63.694(k).

Oil-water separator means a separator as defined for this subpart that is used to separate oil from water.

Operating parameter value means a minimum or maximum value established for a control device or treatment process parameter which, if achieved by itself or in combination with one or more other operating parameter values, determines that an owner or operator has complied with an applicable emissions limitation or standard.

Organic-water separator means a separator as defined for this subpart that is used to separate organics from water.

Point-of-extraction means a point above ground where you can collect samples of a remediation material before or at the first point where organic constituents in the material have the potential to volatilize and be released to the atmosphere and before placing the material in a remediation material management unit or treatment process. For the purpose this subpart, the first point where the organic constituents in the remediation material have the potential to volatilize and be released to the atmosphere is not a fugitive emissions point due to an equipment leak from any of the following equipment components: pumps, compressors, valves, connectors, instrumentation systems, or safety devices.

Process heater means an enclosed combustion device that transfers heat released by burning fuel directly to process streams or to heat transfer liquids other than water.

Process vent means any open-ended pipe, stack, duct, or other opening intended to allow the passage of gases, vapors, or fumes to the atmosphere and this passage is caused by mechanical means (such as compressors, vacuum-producing systems or fans) or by process-related means (such as volatilization produced by heating). For the purposes of this subpart, a process vent is neither a safety device (as defined in this section) nor a stack, duct or other opening used to exhaust combustion products from a boiler, furnace, heater, incinerator, or other combustion device.

Radioactive mixed waste means a material that contains both hazardous waste subject to RCRA and source, special nuclear, or by-product material subject to the Atomic Energy Act of 1954.

Remediation material means a material that contains one or more of the HAP listed in Table 1 of this subpart, and this material is one of the following:

(1) A material found in naturally occurring media such as soil, groundwater, surface water, sediments, or a mixture of such materials with liquids, sludges, or solids which is inseparable by simple mechanical removal processes and is made up primarily of media. This material does not include debris as defined in 40 CFR 268.2.

(2) A material found in intact or substantially intact containers, tanks, storage piles, or other storage units that requires clean up because this material poses a reasonable potential threat to contaminating media. Examples of these materials include, but are not limited to, solvents, oils, paints, and other volatile or semi-volatile organic liquids found in buried drums, cans, or other containers; gasoline, fuel oil, or other fuels in leaking underground storage tanks; and solid materials containing volatile or semi-volatile organics in unused or abandoned piles. Remediation material is not a waste or residue generated by routine equipment maintenance activities performed at a facility such as, but not limited to, tank bottoms and sludges removed during tank cleanouts; sludges and sediments removed from active wastewater treatment tanks, surface impoundments, or lagoons; spent catalyst removed from process equipment; residues removed from air pollution control equipment; and debris removed during heat exchanger and pipeline cleanouts.

Remediation material management unit means a tank, container, surface impoundment, oil-water separator, organic-water separator, or transfer system used to remove, destroy, degrade, transform, immobilize, or otherwise manage remediation material.

Remediation material service means any time when a pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, or instrumentation system contains or contacts remediation material.

Responsible official means responsible official as defined in 40 CFR 70.2.

Safety device means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions to prevent physical damage or permanent deformation to equipment by venting gases or vapors during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purpose of this Subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials.

Separator means a remediation material management unit, generally a tank, used to separate oil or organics from water. A separator consists of not only the separation unit but also the forebay and other separator basins, skimmers, weirs, grit chambers, sludge hoppers, and bar screens that are located directly after the individual drain system and prior to any additional treatment units such as an air flotation unit clarifier or biological treatment unit. Examples of a separator include, but are not limited to, an API separator, parallel-plate interceptor, and corrugated-plate interceptor with the associated ancillary equipment.

Site remediation means one or more activities or processes used to remove, destroy, degrade, transform, immobilize, or otherwise manage remediation material. The monitoring or measuring of contamination levels in environmental media using wells or by sampling is not considered to be a site remediation.

Sludge means sludge as defined in § 260.10 of this chapter.

Soil means unconsolidated earth material composing the superficial geologic strata (material overlying bedrock), consisting of clay, silt, sand,

or gravel size particles (sizes as classified by the U.S. Soil Conservation Service), or a mixture of such materials with liquids, sludges, or solids which is inseparable by simple mechanical removal processes and is made up primarily of soil.

Stabilization process means any physical or chemical process used to either reduce the mobility of contaminants in media or eliminate free liquids as determined by Test Method 9095—Paint Filter Liquids Test in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW–846, Third Edition, September 1986, as amended by Update I, November 15, 1992. (As an alternative, you may use any more recent, updated version of Method 9095 approved by the EPA). A stabilization process includes mixing remediation material with binders or other materials, and curing the resulting remediation material and binder mixture. Other synonymous terms used to refer to this process are fixation or solidification. A stabilization process does not include the adding of absorbent materials to the surface of remediation material, without mixing, agitation, or subsequent curing, to absorb free liquid.

Surface impoundment means a unit that is a natural topographical depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquids. Examples of surface impoundments include holding, storage, settling, and aeration pits, ponds, and lagoons.

Tank means a stationary unit that is constructed primarily of nonearthen materials (such as wood, concrete, steel, fiberglass, or plastic) which provide structural support and is designed to hold an accumulation of liquids or other materials.

Temperature monitoring device means a piece of equipment used to monitor temperature and having an accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius (°C) or ±1.2 degrees °C, whichever value is greater.

Transfer system means a stationary system for which the predominant function is to convey liquids or solid materials from one point to another point within waste management operation or recovery operation. For the purpose of this subpart, the conveyance of material using a container (as defined of this subpart) or self-propelled vehicle (*e.g.*, a front-end loader) is not a transfer system. Examples of a transfer system include but are not limited to a pipeline, an individual drain system, a gravity-operated conveyor (such as a chute), and a mechanically-powered conveyor (such as a belt or screw conveyor).

Treatment process means a process in which remediation material is physically, chemically, thermally, or biologically treated to destroy, degrade, or remove hazardous air pollutants contained in the material. A treatment process can be composed of a single unit (*e.g.*, a steam stripper) or a series of units (*e.g.*, a wastewater treatment system). A treatment process can be used to treat one or more remediation material streams at the same time.

Volatile organic hazardous air pollutant (VOHAP) concentration means the fraction by weight of the HAP listed in Table 1 of this subpart that are contained in the remediation material as measured using Method 305, 40 CFR part 63, appendix A and expressed in terms of parts per million (ppm). As an alternative to using Method 305, 40 CFR part 63, appendix A, you may determine the HAP concentration of the remediation material using any one of the other test methods specified in § 63.694(b)(2)(ii). When a test method specified in § 63.694(b)(2)(ii) other than Method 305 in 40 CFR part 63, appendix A is used to determine the speciated HAP concentration of the contaminated material, the individual compound concentration may be adjusted by the corresponding f_{m305} listed in Table 1 of this subpart to determine a VOHAP concentration.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

Tables to Subpart GGGGG of Part 63

TABLE 1 TO SUBPART GGGGG OF PART 63.—LIST OF HAZARDOUS AIR POLLUTANTS.

CAS No.[a]	Compound name	f_{m305}
75070	Acetaldehyde	1.000
75058	Acetonitrile	0.989
98862	Acetophenone	0.314
107028	Acrolein	1.000
107131	Acrylonitrile	0.999
107051	Allyl chloride	1.000
71432	Benzene (includes benzene in gasoline)	1.000
98077	Benzotrichloride (isomers and mixture)	0.958
100447	Benzyl chloride	1.000
92524	Biphenyl	0.864
542881	Bis(chloromethyl)ether[b]	0.999
75252	Bromoform	0.998
106990	1,3-Butadiene	1.000
75150	Carbon disulfide	1.000
56235	Carbon Tetrachloride	1.000
43581	Carbonyl sulfide	1.000
133904	Chloramben	0.633
108907	Chlorobenzene	1.000
67663	Chloroform	1.000
107302	Chloromethyl methyl ether[b]	1.000
126998	Chloroprene	1.000
98828	Cumene	1.000
94757	2,4-D, salts and esters	0.167
334883	Diazomethane[c]	0.999
132649	Dibenzofurans	0.967
96128	1,2-Dibromo-3-chloropropane	1.000
106467	1,4-Dichlorobenzene(p)	1.000
107062	Dichloroethane (Ethylene dichloride)	1.000
111444	Dichloroethyl ether (Bis(2-chloroethyl ether))	0.757

TABLE 1 TO SUBPART GGGGG OF PART 63.—LIST OF HAZARDOUS AIR POLLUTANTS.—Continued

CAS No.[a]	Compound name	f_{m305}
542756	1,3-Dichloropropene	1.000
79447	Dimethyl carbamoyl chloride[c]	0.150
57147	1,1-Dimethyl hydrazine	.....
64675	Diethyl sulfate	0.0025
77781	Dimethyl sulfate	0.086
121697	N,N-Dimethylaniline	0.0008
51285	2,4-Dinitrophenol	0.0077
121142	2,4-Dinitrotoluene	0.0848
123911	1,4-Dioxane (1,4-Diethyleneoxide)	0.869
106898	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	0.939
106887	1,2-Epoxybutane	1.000
140885	Ethyl acrylate	1.000
100414	Ethyl benzene	1.000
75003	Ethyl chloride (Chloroethane)	1.000
106934	Ethylene dibromide (Dibromoethane)	0.999
107062	Ethylene dichloride (1,2-Dichloroethane)	1.000
151564	Ethylene imine (Aziridine)	0.867
75218	Ethylene oxide	1.000
75343	Ethylidene dichloride (1,1-Dichloroethane)	1.000
	Glycol ethers[d] that have a Henry's Law constant value equal to or greater than 0.1 Y/X(1.8×10^{-6} atm/gm-mole/m^3) at 25° C.	[e]
118741	Hexachlorobenzene	0.97
87683	Hexachlorobutadiene	0.88
67721	Hexachloroethane	0.499
110543	Hexane	1.000
78591	Isophorone	0.506
58899	Lindane (all isomers)	1.000
67561	Methanol	0.855
74839	Methyl bromide (Bromomethane)	1.000
74873	Methyl chloride (Chloromethane)	1.000
71556	Methyl chloroform (1,1,1-Trichloroethane)	1.000
78933	Methyl ethyl ketone (2-Butanone)	0.990
74884	Methyl iodide (Iodomethane)	1.000
108101	Methyl isobutyl ketone (Hexone)	0.979
624839	Methyl isocyanate	1.000
80626	Methyl methacrylate	0.999
1634044	Methyl tert butyl ether	1.000
75092	Methylene chloride (Dichloromethane)	1.000
91203	Naphthalene	0.994
98953	Nitrobenzene	0.394
79469	2-Nitropropane	0.989
82688	Pentachloronitrobenzene (Quintobenzene)	0.839
87865	Pentachlorophenol	0.0898
75445	Phosgene[c]	1.000
123386	Propionaldehyde	0.999
78875	Propylene dichloride (1,2-Dichloropropane)	1.000
75569	Propylene oxide	1.000
75558	1,2-Propylenimine (2-Methyl aziridine)	0.945
100425	Styrene	1.000
96093	Styrene oxide	0.830
79345	1,1,2,2-Tetrachloroethane	0.999
127184	Tetrachloroethylene (Perchloroethylene)	1.000
108883	Toluene	1.000
95534	o-Toluidine	0.152
120821	1,2,4-Trichlorobenzene	1.000
71556	1,1,1-Trichloroethane (Methyl chloroform)	1.000
79005	1,1,2-Trichloroethane (Vinyl trichloride)	1.000
79016	Trichloroethylene	1.000
95954	2,4,5-Trichlorophenol	0.108
88062	2,4,6-Trichlorophenol	0.132
121448	Triethylamine	1.000
540841	2,2,4-Trimethylpentane	1.000
108054	Vinyl acetate	1.000
593602	Vinyl bromide	1.000
75014	Vinyl chloride	1.000
75354	Vinylidene chloride (1,1-Dichloroethylene)	1.000
1330207	Xylenes (isomers and mixture)	1.000
95476	o-Xylenes	1.000
108383	m-Xylenes	1.000
106423	p-Xylenes	1.000

Notes:

1. f_{m305} = Fraction measure factor in Method 305, 40 CFR part 63, appendix A.
[a] CAS numbers refer to the Chemical Abstracts Services registry number assigned to specific compounds, isomers, or mixtures of compounds.
[b] Denotes a HAP that hydrolyzes quickly in water, but the hydrolysis products are also HAP chemicals.
[c] Denotes a HAP that may react violently with water.
[d] Denotes a HAP that hydrolyzes slowly in water.
[e] The f_{m305} factors for some of the more common glycol ethers can be obtained by contacting the Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711.

TABLE 2 TO SUBPART GGGGG OF PART 63.—CONTROL LEVELS AS REQUIRED BY § 63.7895(a) FOR TANKS MANAGING REMEDIATION MATERIAL WITH A MAXIMUM HAP VAPOR PRESSURE LESS THAN 76.6 kPa

If your tank design capacity is . . .	And the maximum HAP vapor pressure of the remediation material placed in your tank is . . .	Then your tank must use . . .
1. Less than 38 m^3	Less than 76.6 kPa	Tank Level 1 controls under § 63.7895(b).
2. At least 38 m^3 but less than 151 m^3	Less than 13.1 kPa	Tank Level 1 controls under § 63.7895(b).
3. 151 m^3 or greater	Less than 0.7 kPa	Tank Level 1 controls under § 63.7895(b).
4. at least 38 m^3 but less than 151 m^3	13.1 kPa or greater	Tank Level 2 controls under § 63.7895(c).
5. 151 m^3 or greater	0.7 kPa or greater	Tank Level 2 controls under § 63.7895(c)

As stated in § 63.7940, you must comply with the applicable General Provisions requirements according to the following table:

TABLE 3 TO SUBPART GGGGG OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART GGGGG

Citation	Subject	Brief description	Applies to subpart GGGGG
§ 63.1	Applicability	Initial Applicability Determination; Applicability After Standard Established; Permit Requirements; Extensions, Notifications.	Yes.
§ 63.2	Definitions	Definitions for part 63 standards	Yes.
§ 63.3	Units and Abbreviations	Units and abbreviations for part 63 standards	Yes.
§ 63.4	Prohibited Activities	Prohibited Activities; Compliance date; Circumvention, Severability.	Yes.
§ 63.5	Construction/Reconstruction	Applicability; applications; approvals	Yes.
§ 63.6(a)	Applicability	General Provisions (GP) apply unless compliance extension GP apply to area sources that become major.	Yes.
§ 63.6(b)(1)–(4)	Compliance Dates for New and Reconstructed sources.	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for 112(f).	Yes.
§ 63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal.	Yes.
§ 63.6(b)(6)	[Reserved]		
§ 63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major.	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source.	Yes.
§ 63.6(c)(1)–(2)	Compliance Dates for Existing Sources	Comply according to date in subpart, which must be no later than 3 years after effective date. For 112(f) standards, comply within 90 days of effective date unless compliance extension.	Yes.
§ 63.6(c)(3)–(4)	[Reserved]		
§ 63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major.	Area sources that become major must comply with major source standards by date indicated in subpart or by equivalent time period (for example, 3 years).	Yes.
§ 63.6(d)	[Reserved]		
§ 63.6(e)(1)–(2)	Operation & Maintenance	Operate to minimize emissions at all times. Correct malfunctions as soon as practicable. Operation and maintenance requirements independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met.	Yes.
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction Plan (SSMP).	Requirement for startup, shutdown and malfunction (SSM) and SSMP. Content of SSMP.	Yes with the exception of containers using either Level 1 or Level 2 controls.

TABLE 3 TO SUBPART GGGGG OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART GGGGG—Continued

Citation	Subject	Brief description	Applies to subpart GGGGG
§ 63.6(f)(1)	Compliance Except During SSM	You must comply with emissions standards at all times except during SSM.	Yes.
§ 63.6(f)(2)–(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection.	Yes.
§ 63.6(g)(1)–(3)	Alternative Standard	Procedures for getting an alternative standard	Yes.
§ 63.6(h)	Opacity/Visible Emissions (VE) Standards	Requirements for opacity and visible emissions limits.	No. No opacity standards.
§ 63.6(i)(1)–(14)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension.	Yes.
§ 63.6(j)	Presidential Compliance Exemption	President may exempt source category from requirement to comply with final rule.	Yes.
§ 63.7(a)(1)–(2)	Performance Test Dates	Dates for Conducting Initial Performance Testing and Other Compliance Demonstrations. Must conduct 180 days after first subject to final rule.	Yes.
§ 63.7(a)(3)	CAA Section 114 Authority	Administrator may require a performance test under CAA section 114 at any time.	Yes.
§ 63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test.	Yes.
§ 63.7(b)(2)	Notification of Rescheduling	If rescheduling a performance test is necessary, must notify Administrator 5 days before scheduled date of rescheduled date.	Yes.
§ 63.7(c)	Quality Assurance/Test Plan	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with; Test plan approval procedures; performance audit requirements; internal and External QA procedures for testing.	
§ 63.7(d)	Testing Facilities	Requirements for testing facilities	Yes.
§ 63.7(e)(1)	Conditions for Conducting Performance Tests	Performance tests must be conducted under representative conditions. Cannot conduct performance tests during SSM. Not a violation to exceed standard during SSM.	Yes.
§ 63.7(e)(2)	Conditions for Conducting Performance Tests	Must conduct according to rule and EPA test methods unless Administrator approves alternative.	Yes.
§ 63.7(e)(3)	Test Run Duration	Must have three test runs of at least one hour each. Compliance is based on arithmetic mean of three runs. Conditions when data from an additional test run can be used.	Yes.
§ 63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an alternative test method.	Yes.
§ 63.7(g)	Performance Test Data Analysis	Must include raw data in performance test report. Must submit performance test data 60 days after end of test with the Notification of Compliance Status. Keep data for 5 years.	Yes.
§ 63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test.	Yes.
§ 63.8(a)(1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard.	Yes.
§ 63.8(a)(2)	Performance Specifications	Performance Specifications in appendix B of part 60 apply.	Yes.
§ 63.8(a)(3)	[Reserved].		
§ 63.8(a)(4)	Monitoring with Flares	Unless your rule says otherwise, the requirements for flares in 63.11 apply.	Yes.
§ 63.8(b)(1)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative.	Yes.
§ 63.8(b)(2)–(3)	Multiple Effluents and Multiple Monitoring Systems.	Specific requirements for installing monitoring systems. Must install on each effluent before it is combined and before it is released to the atmosphere unless Administrator approves otherwise. If more than one monitoring system on an emissions point, must report all monitoring system results, unless one monitoring system is a backup.	Yes.

TABLE 3 TO SUBPART GGGGG OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART GGGGG—Continued

Citation	Subject	Brief description	Applies to subpart GGGGG
§ 63.8(c)(1)	Monitoring System Operation and Maintenance.	Maintain monitoring system in a manner consistent with good air pollution control practices.	Yes.
§ 63.8(c)(1)(i)	Routine and Predictable SSM	Follow the SSM plan for routine repairs. Keep parts for routine repairs readily available. Reporting requirements for SSM when action is described in SSM plan.	Yes
§ 63.8(c)(1)(ii)	SSM not in SSMP	Reporting requirements for SSM when action is not described in SSM plan.	Yes.
§ 63.8(c)(1)(iii)	Compliance with Operation and Maintenance (O&M) Requirements.	How Administrator determines if source complying with operation and maintenance requirements. Review of source O&M procedures, records, Manufacturer's instructions, recommendations, and inspection of monitoring system.	Yes.
§ 63.8(c)(2)–(3)	Monitoring System Installation	Must install to get representative emissions and parameter measurements. Must verify operational status before or at performance test.	Yes.
§ 63.8(c)(4)	Continuous Monitoring System (CMS) Requirements.	CMS must be operating except during breakdown, out-of-control, repair, maintenance, and high-level calibration drifts.	No.
§ 63.8(c)(4)(i)–(ii)	Continuous Monitoring System (CMS) Requirements.	COMS must have a minimum of one cycle of sampling and analysis for each successive 10-second period and one cycle of data recording for each successive 6-minute period. CEMS must have a minimum of one cycle of operation for each successive 15-minute period.	Yes. However, COMS are not applicable. Requirements for CPMS are listed in §§ 63.7900 and 63.7913.
§ 63.8(c)(5)	COMS Minimum Procedures	COMS minimum procedures	No.
§ 63.8(c)(6)	CMS Requirements	Zero and High level calibration check requirements.	Yes. However requirements for CPMS are addressed in §§ 63.7900 and 63.7913.
§ 63.8(c)(7)–(8)	CMS Requirements	Out-of-control periods, including reporting	Yes.
§ 63.8(d)	CMS Quality Control	Requirements for CMS quality control, including calibration, etc. Must keep quality control plan on record for 5 years. Keep old versions for 5 years after revisions.	Yes.
§ 63.8(e)	CMS Performance Evaluation	Notification, performance evaluation test plan, reports.	Yes.
§ 63.8(f)(1)–(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring.	Yes.
§ 63.8(f)(6)	Alternative to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy tests for CEMS.	No.
§ 63.8(g)(1)–(4)	Data Reduction	COMS 6-minute averages calculated over at least 36 evenly spaced data points. CEMS 1-hour averages computed over at least four equally spaced data points.	Yes. However, COMS are not applicable. Requirements for CPMS are addressed in §§ 63.7900 and 63.7913.
§ 63.8(g)(5)	Data Reduction	Data that cannot be used in computing averages for CEMS and COMS.	No.
§ 63.9(a)	Notification Requirements	Applicability and State Delegation	Yes.
§ 63.9(b)(1)–(5)	Initial Notifications.	Submit notification 120 days after effective date. Notification of intent to construct/reconstruct; Notification of commencement of construct/reconstruct; Notification of startup. Contents of each.	Yes.
§ 63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed BACT/LAER.	Yes.
§ 63.9(d)	Notification of Special Compliance Requirements for New Source.	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date.	Yes.
§ 63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	Yes.
§ 63.9(f)	Notification of VE/Opacity Test	Notify Administrator 30 days prior	No.

TABLE 3 TO SUBPART GGGGG OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART GGGGG—Continued

Citation	Subject	Brief description	Applies to subpart GGGGG
§ 63.9(g)	Additional Notifications When Using CMS	Notification of performance evaluation. Notification using COMS data. Notification that exceeded criterion for relative accuracy.	Yes. However, there are no opacity standards.
§ 63.9(h)(1)–(6)	Notification of Compliance Status	Contents. Due 60 days after end of performance test or other compliance demonstration, except for opacity/VE, which are due 30 days after. When to submit to Federal vs. State authority.	Yes.
§ 63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change in when notifications must be submitted.	Yes.
§ 63.9(j)	Change in Previous Information	Must submit within 15 days after the change ..	Yes.
§ 63.10(a)	Recordkeeping/Reporting	Applies to all, unless compliance extension. When to submit to Federal vs. State authority. Procedures for owners of more than 1 source.	Yes.
§ 63.10(b)(1)	Recordkeeping/Reporting	General Requirements. Keep all records readily available. Keep for 5 years.	Yes.
§ 63.10(b)(2)(i)–(iv)	Records related to SSM	Occurrence of each of operation (process equipment). Occurrence of each malfunction of air pollution equipment. Maintenance on air pollution control equipment. Actions during startup, shutdown, and malfunction.	Yes.
§ 63.10(b)(2)(vi) and (x–xi).	CMS Records	Malfunctions, inoperative, out-of-control. Calibration checks. Adjustments, maintenance.	Yes.
§ 63.10(b)(2)(vii)–(ix)	Records	Measurements to demonstrate compliance with emissions limitations. Performance test, performance evaluation, and visible emissions observation results. Measurements to determine conditions of performance tests and performance evaluations.	Yes.
§ 63.10(b)(2)(xii)	Records	Records when under waiver	Yes.
§ 63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test.	No.
§ 63.10(b)(2)(xiv)	Records	All documentation supporting Initial Notification and Notification of Compliance Status.	Yes.
§ 63.10(b)(3)	Records	Applicability Determinations	Yes.
§ 63.10(c)	Records	Additional Records for CMS	No.
§ 63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes.
§ 63.10(d)(2)	Report of Performance Test Results	When to submit to Federal or State authority	Yes.
§ 63.10(d)(3)	Reporting Opacity or VE Observations	What to report and when	No.
§ 63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension.	Yes.
§ 63.10(d)(5)	Startup, Shutdown, and Malfunction Reports ..	Contents and submission	Yes.
§ 63.10(e)(1)–(2)	Additional CMS Reports	Must report results for each CEM on a unit Written copy of performance evaluation Three copies of COMS performance evaluation.	Yes. However, COMS are not applicable.
§ 63.10(e)(3)	Reports	Excess Emissions Reports	No.
§ 63.10(e)(3)(i–iii)	Reports	Schedule for reporting excess emissions and parameter monitor exceedance (now defined as deviations).	No.
§ 63.10(e)(3)(iv–v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedance (now defined as deviations). Provision to request semiannual reporting after compliance for one year. Submit report by 30th day following end of quarter or calendar half. If there has not been an exceedance or excess emissions (now defined as deviations), report contents is a statement that there have been no deviations.	No.
§ 63.10(e)(3)(iv–v)	Excess Emissions Reports	Must submit report containing all of the information in §§ 63.10(c)(5–13) and 63.8(c)(7–8).	No.

TABLE 3 TO SUBPART GGGGG OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART GGGGG—Continued

Citation	Subject	Brief description	Applies to subpart GGGGG
§63.10(e)(3)(vi–viii)	Excess Emissions Report and Summary Report.	Requirements for reporting excess emissions for CMSs (now called deviations). Requires all of the information in §§63.10(c)(5–13) and 63.8(c)(7–8).	No.
§63.10(e)(4)	Reporting COMS data	Must submit COMS data with performance test data.	No.
§63.10(f)	Waiver for Recordkeeping/Reporting	Procedures for Administrator to waive	Yes.
§63.11	Flares	Requirements for flares	Yes.
§63.12	Delegation	State authority to enforce standards	Yes.
§63.13	Addresses	Addresses where reports, notifications, and requests are sent.	Yes.
§63.14	Incorporation by Reference	Test methods incorporated by reference	Yes.
§63.15	Availability of Information	Public and confidential information	Yes

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Subpart AAA—American Samoa

Emissions From Existing Municipal Waste Combustors With the Capacity To Burn Greater Than 250 Tons per Day of Municipal Solid Waste

§ 62.12900 Identification of plan—negative declaration.

Letter from the American Samoa Environmental Protection Agency, submitted on January 20, 1998, certifying that there are no municipal waste combustion units subject to part 60, subpart Cb, of this chapter.

■ 4. Part 62 is amended by adding Subpart DDD to read as follows:

Subpart DDD—Northern Mariana Islands

Emissions From Existing Municipal Waste Combustors With the Capacity To Burn Greater Than 250 Tons per Day of Municipal Solid Waste

§ 62.13600 Identification of plan—negative declaration.

Letter from the Commonwealth of the Northern Mariana Islands Division of Environmental Quality, submitted on January 27, 1998, certifying that there are no municipal waste combustion units subject to part 60, subpart Cb, of this chapter.

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[Docket ID No. OAR–2002–0043; FRL–7551–4]

RIN 2060–AH03

National Emission Standards for Hazardous Air Pollutants for Primary Magnesium Refining

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national emission standards for hazardous air pollutants (NESHAP) for primary magnesium refining facilities. The EPA has identified primary magnesium refining facilities as a major source of hazardous air pollutant (HAP) emissions. The NESHAP implement section 112(d) of the Clean Air Act (CAA) by requiring all major sources to meet HAP emission standards reflecting application of the maximum achievable control technology (MACT).

The HAP emitted by facilities in the primary magnesium refining source category include chlorine, hydrochloric acid, dioxin/furan, and trace amounts of several HAP metals. Exposure to these substances has been demonstrated to cause adverse health effects, including chronic and acute disorders of the blood, heart, kidneys, reproductive system, and central nervous system. Some of these pollutants are considered to be carcinogens, and all can cause toxic effects in humans following sufficient exposure.

EFFECTIVE DATE: October 10, 2003.

ADDRESSES: The official public docket is the collection of materials used in developing the final rule and is available for public viewing at the EPA Docket Center (EPA/DC), EPA West, Room B–102, 1301 Constitution Ave., NW., Washington, DC 20460.

FOR FURTHER INFORMATION CONTACT: Lula Melton, Metals Group, Emission Standards Division (C439–02), U.S. EPA, Research Triangle Park, NC 27711, telephone number: (919) 541–2910, electronic mail address: *melton.lula@epa.gov.*

SUPPLEMENTARY INFORMATION:

Regulated Entities. Categories and entities potentially regulated by this action include:

Category	NAICS [1]	Examples of regulated entities
Industry	331419	Primary refiners of nonferrous metals (magnesium) by electrolytic methods.

[1] North American Industry Classification System.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your facility is regulated by this action, you should examine the applicability criteria in § 63.9881 of the final rule. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Docket. The EPA has established an official public docket for this action including both Docket ID No. OAR–2002–0043 and Docket ID No. A–2002–0027. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. All items may not be listed under both docket numbers, so interested parties should inspect both docket numbers to ensure that they have received all materials relevant to the final rule. Although a part of the official docket, the public docket does not include Confidential Business Information or other information whose disclosure is restricted by statute. The official public docket is available for public viewing at the EPA Docket Center (Air Docket), EPA West, Room B–102, 1301 Constitution Ave., NW., Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742.

Electronic Docket Access. You may access the final rule electronically through the EPA Internet under the "**Federal Register**" listings at *http://www.epa.gov/fedrgstr/.* An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to view public comments, access the index of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through EPA Dockets. Once in the system, select "search," then key in the appropriate docket identification number.

Worldwide Web (WWW). In addition to being available in the docket, an electronic copy of the final rule will also be available on the WWW through the Technology Transfer Network (TTN). Following signature, a copy of the final rule will be posted on the TTN's policy and guidance page for newly proposed or promulgated rules at *http://www.epa.gov/ttn/oarpg.* The TTN provides information and technology exchange in various areas of air pollution control. If more information

regarding the TTN is needed, call the TTN HELP line at (919) 541–5384.

Judicial Review. Under CAA section 307(b)(1), judicial review of the final NESHAP is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by December 9, 2003. Only those objections to the NESHAP which were raised with reasonable specificity during the public comment period may be raised during judicial review. Under CAA section 307(b)(2), the requirements established by today's final action may not be challenged separately in any civil or criminal proceeding brought by the EPA to enforce these requirements.

Outline. The information presented in this preamble is organized as follows:

I. Background
II. Summary of the Final Rule
  A. What are the affected sources and emission points?
  B. What are the compliance deadlines?
  C. What are the emission limitations and work practice standards?
  D. What are the operation and maintenance requirements?
  E. What are the initial compliance requirements?
  F. What are the continuous compliance requirements?
  G. What are the notification, recordkeeping, and reporting requirements?
III. Summary of Responses to Major Comments
IV. Summary of Environmental, Energy, and Economic Impacts
V. Statutory and Executive Order Reviews
  A. Executive Order 12866: Regulatory Planning and Review
  B. Paperwork Reduction Act
  C. Regulatory Flexibility Act
  D. Unfunded Mandates Reform Act
  E. Executive Order 13132: Federalism
  F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments
  G. Executive Order 13045: Protection of Children From Environmental Health & Safety Risks
  H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use
  I. National Technology Transfer Advancement Act
  J. Congressional Review Act

I. Background

Section 112 of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. The category of major sources covered by today's final NESHAP for Primary Magnesium Refining, was listed on July 16, 1992 (57 FR 31576). Major sources of HAP are those that emit or have the potential to emit greater than 10 tons per year (tpy) of any one HAP or 25 tpy of any combination of HAP. Additional information on the NESHAP development process can be found in the preamble to the proposed rule (68 FR 2970).

We received one letter with substantive comments on the proposed NESHAP. Today's final rule reflects our full consideration of the comments we received. Additional information is available in the Response to Comments document in Docket No. OAR–2002–0043.

In addition to responding to comments, we made two minor clarifications from the proposed rule that are discussed in the final rule summary. These minor clarifications are not new requirements but simply ensure consistency in the final rule.

II. Summary of the Final Rule

A. What Are the Affected Sources and Emission Points?

The affected source is each new or existing primary magnesium refining facility. An existing affected source is one constructed or reconstructed on or before January 22, 2003. We have identified one existing affected source (US Magnesium Corporation) that will be subject to the final rule. This plant produces magnesium from brine (salt water) taken from the Great Salt Lake. A new affected source is one constructed or reconstructed after January 22, 2003. The final rule covers emissions from spray dryers, the melt reactor system, the launder off-gas system, and magnesium chloride storage bins. The final rule also covers fugitive dust emissions.

B. What Are the Compliance Deadlines?

The owner or operator of an existing affected source must comply by October 11, 2004. New or reconstructed sources that startup on or before October 10, 2003 must comply by October 10, 2003. New or reconstructed sources that startup after October 10, 2003 must comply upon initial startup.

C. What Are the Emission Limitations and Work Practice Standards?

The final rule includes mass rate emission limits in pounds per hour (lbs/hr) for chlorine, hydrochloric acid (HCl), particulate matter (PM), and particulate matter less than 10 microns (PM_{10}). Additional emission limits in grains per dry standard cubic foot (gr/dscf) apply to magnesium chloride storage bins. We clarified that both the mass emission rate limit and concentration limit for PM_{10} and HC1 apply to emissions from magnesium chloride storage bins. This clarification was made to be consistent with the requirements in the current operating permit for the affected source. The emission limits are shown in Table 1 of this preamble.

TABLE 1.—MASS RATE EMISSION LIMITS (LBS/HR)

Emission point	Chlorine	HCl	PM	PM_{10}
Spray dryers	.....	200	100	.....
Magnesium chloride storage bins [1]	.....	47.5	.....	2.7
Melt/reactor system	100	7.2	.....	13.1
Launder off-gas system	26.0	46.0	37.5	.....

[1] Additional limits are 0.35 gr/dscf of HCl and 0.016 gr/dscf of PM_{10}.

The final rule also includes an emission limit for each melt/reactor system of 36 nanograms of dioxin/furan toxicity equivalents per dry standard cubic meter (ng TEQ/dscm) corrected to 7 percent oxygen. Dioxins/furans include a group of 17 chemicals or congeners that share certain similar chemical structures and biological characteristics. The 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) congener is the most well studied and the most toxic of these compounds. Scientists believe that dioxins cause effects in similar ways. Because of this and because exposure is typically to variable mixtures of dioxin-like compounds, we use toxicity equivalency factors (TEF) that compare the potential toxicity of each of the individual dioxin-like compounds to the relative toxicity of TCDD. With such factors, the toxicity for a mixture can be expressed in terms of its TEQ, which is the amount of TCDD it would take to equal the combined toxic effect of all the dioxin-like compounds found in the

mixture. To calculate the TEQ, the concentration of each dioxin-like compound is multiplied by its respective TEF. We examined a beyond-the-floor alternative for dioxins/furans and determined that the high cost coupled with the small reduction in dioxin/furan emissions does not justify the beyond-the-floor alternative.

The emission limitations include operating limits for control devices. All owners or operators using a wet scrubber to meet an emission limit in the final rule must establish and meet operating limits for pressure drop and scrubber water flow rate.

The work practice standards require owners or operators to prepare a written plan that describes the measures that will be used to control fugitive dust emissions from all unpaved roads and other unpaved operational areas. The fugitive dust emissions control plan must be approved by the Administrator, and the requirement to operate according to the provisions in the plan must be incorporated by reference in the title V operating permit. In the final rule, we clarified the compliance and recordkeeping requirements for the fugitive dust control plan to be consistent with the work practice requirements in general, such as those in the operation and maintenance plan. The control of fugitive dust emissions will reduce PM which is a surrogate for metal HAP.

D. What Are the Operation and Maintenance Requirements?

All owners or operators of plants subject to the final rule are required to prepare and implement a written startup, shutdown, and malfunction plan according to the requirements in § 63.6(e) of the NESHAP General Provisions (40 CFR part 63, subpart A). A written operation and maintenance plan is also required for control devices subject to an operating limit. The plan must describe procedures for monthly inspections and preventative maintenance requirements for control devices.

E. What Are the Initial Compliance Requirements?

The final rule requires a performance test for each control device to demonstrate initial compliance with the applicable emission limits of chlorine, HCl, PM, PM_{10}, and dioxin/furan. The EPA Method 26 or 26A in 40 CFR part 60, appendix A, is the reference method for chlorine and HCl. The reference method for PM is EPA Method 5 or 5D in 40 CFR part 60, appendix A. The reference method for PM_{10} is EPA Method 201 or 201A in 40 CFR part 60, appendix A. The EPA Method 23 of 40 CFR part 60, appendix A, is the reference method for dioxin/furan. The final rule also requires owners or operators to establish operating limits for scrubber pressure drop and scrubber water flow rate concurrent with the initial performance tests.

F. What Are the Continuous Compliance Requirements?

The final rule requires primary magnesium refineries to conduct performance tests at least twice during each title V operating permit term (at midterm and renewal) to demonstrate continuous compliance with the emission limits. Owners or operators are also required to monitor operating parameters for control devices subject to operating limits and carry out the procedures in their fugitive dust emissions control plan and their operation and maintenance plan.

For wet scrubbers, owners or operators are required to use continuous parameter monitoring systems (CPMS) to measure and record the hourly average pressure drop and scrubber water flow rate. To demonstrate continuous compliance, owners or operators must keep records documenting conformance with the monitoring requirements and the installation, operation, and maintenance requirements for CPMS.

G. What Are the Notification, Recordkeeping, and Reporting Requirements?

We selected the notification, recordkeeping, and reporting requirements to be consistent with the NESHAP General Provisions (40 CFR part 63, subpart A). One-time notifications are required by EPA to know what facilities are subject to the final standards, if a facility has complied with the final rule requirements, and when certain events, such as performance tests, are scheduled. Semiannual compliance reports containing information on any deviation from the final rule requirements are also required. These reports include information on any deviation that occurred during the reporting period; if no deviation occurred, only summary information is required. Consistent with the NESHAP General Provisions, we also require an immediate report of any startup, shutdown, or malfunction where the actions taken in response were not consistent with the startup, shutdown, and malfunction plan. This information is needed to determine if changes need to be made to the plan. By-passing the control device for maintenance activities is not considered a startup, shutdown, or malfunction event. Records of information needed to document compliance with the final rule requirements are required. These notifications, reports, and records are the minimum needed to ensure initial and continuous compliance.

III. Summary of Responses to Major Comments

We received substantive comments from only one commenter, and this commenter represents the primary magnesium plant affected by the final rule.

Comment: The commenter stated that a dioxin/furan emission limit is not appropriate for the primary magnesium industry because EPA has applied these limits primarily to facilities that burn wastes. Other industries, such as petroleum refineries and iron and steel foundries, are known to emit dioxin/furan; however, EPA did not propose limits for them. The commenter also stated that the dioxin/furan limit cannot be justified on the basis of health risk because the facility is in a remote location, and the nearest resident is 25 miles away. The commenter recommended that EPA use PM as a surrogate for dioxin/furan emissions from the melt reactor because: EPA established MACT for dioxin/furan as the PM control devices on the melt reactor, PM is used as a surrogate for other pollutants in the final rule and has been used as a surrogate for dioxin/furan in other rules, the dioxin/furan emissions are mainly in particulate form, the dioxin/furan limit will obtain no additional reduction beyond that obtained using PM as a surrogate, and the dioxin/furan limit will add significantly to the cost of stack testing with no apparent gain.

Response: We set a dioxin/furan limit because it is a HAP of concern with respect to toxicity. We have adequate test data (two tests composed of three runs each) to characterize emission control performance, and dioxin/furan formation and control is not always correlated to PM formation and control. First, the formation of dioxin/furans in combustion devices with an available source of chlorine is well documented, and it is not a concern only for facilities that burn waste. The test data from this industry confirm the formation and emissions of dioxin/furans from this emissions source. Second, we do not agree that the control device for PM will adequately control the emissions of dioxin/furans. There are factors other than the PM control device which may affect the formation and control of dioxin/furan, such as the composition

and concentrations of precursors, temperature, and process conditions. Dioxins are formed in acid gases leaving the combustion device, and the means of control is not necessarily the particulate control system but quenching of gases to control the temperature in the device (to assure that temperature does not fall in the range which optimizes dioxin/furan formation).

The MACT control system for dioxin/furans is the entire scrubber train—the packed tower scrubbers (for HCl control) and the venturi scrubber (for PM control)—and not just the PM control device. That is, the control of dioxin/furans includes the rapid cooling of the exhaust gas that occurs in the packed tower absorbers, which limits the dioxin/furan formation. Therefore, we believe a dioxin/furan limit is necessary to ensure that process and control device operations do not change in the future in a manner that might increase the formation and release of dioxin/furan, even if the overall PM control level remains the same.

The dioxin/furan emission limit is not based on a determination that health risks exist; it is based on technology and the floor level of control that has been achieved. Stack testing every 2.5 years is not costly or unreasonable to provide assurance that the dioxin/furan limit is being achieved. Moreover, the commenter did not provide any information as to how this stack testing will add significantly to the costs of compliance with the final NESHAP.

Comment: The commenter disagreed with the approach used to set the emission limit for dioxin/furan and claimed it does not provide a reasonable margin of safety to ensure continuous compliance. The commenter suggests that a limit of 50 ng TEQ/dscm is statistically valid. However, the commenter recommended that a minimum safety factor of three be applied to the average of results from the two stack tests (21.5 ng TEQ/dscm) to develop a limit of 65 ng TEQ/dscm rather than a limit of 36 ng TEQ/dscm as proposed. The commenter stated this is reasonable because of the high variability in the test results and because of the inherent inaccuracies in the dioxin/furan sampling and analysis, especially at these extremely low levels of detection.

Response: We chose 36 ng TEQ/dscm because it was the highest result from any of the six runs. This approach accounts for inherent variability, and an additional margin of safety is provided by determining compliance from the average of three runs. The commenter estimated the 99th percentile for single test runs. The variability of the average of three runs is more appropriate than the variability of a single test run because compliance is determined from the average of three test runs rather than for each single test run.

To illustrate the impact of using the average of three runs, we performed a Monte Carlo simulation of 5,000 runs based on a normal distribution developed from the test results for six runs. From the simulation, the 99th percentile for individual runs was 44 ng TEQ/dscm compared to a 99th percentile of 32 ng TEQ/dscm for the average of three runs. Consequently, since the emission limit is enforced based on three-run averages, the proposed limit of 36 ng TEQ/dscm is close to the 99th percentile of performance. We believe that the limit as proposed (and included in the final rule) is achievable, and the simulation indicates it accounts for variability.

The commenter mentioned process variability and uncertainty associated with sampling and analysis as reasons for a higher limit. However, the variability in the process, sampling, and analysis are inherently included in the runs we used to derive the limit and using the highest run accommodates this variability. In addition, there is no need to artificially increase the limit by multiplying the average of the test results by three because the statistical simulation shows that the proposed limit is reasonable. With testing performed every 2.5 years and a limit at about the 99th percentile, the limit would be exceeded no more than once every 250 years if the process and control device are operated as they were during the two performance tests.

While we were evaluating the data discussed by the commenter, we discovered an error in the 1998 test report. The test contractor inadvertently switched the TEF for two congeners. The net effect is that the overall average for six runs is 18 ng TEQ/dscm instead of 21.5 ng TEQ/dscm. This correction had no effect on the highest run and did not change the limit that was originally proposed.

Comment: The commenter stated that the World Health Organization's 1998 TEF scheme should be used to assign toxic equivalency, and this scheme should be stated in the final rule.

Response: Based on our dioxin reassessment report, we agree with the commenter and have incorporated the updated TEF scheme in the final rule. The effect on the test results was small, and the highest run remained at 36 ng TEQ/dscm. Consequently, the level of the final standard remains as proposed.

IV. Summary of Environmental, Energy and Economic Impacts

Generally, we do not expect the impacts of the final rule to be very significant. Currently, the one operating primary magnesium plant has all of the required air pollution control equipment in place and operating. The only impacts will be the estimated cost of $43,000 for the additional monitoring, recordkeeping and reporting requirements required by the final rule.

V. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the EPA must determine whether the regulatory action is "significant" and, therefore, subject to review by the Office of Management and Budget (OMB) and the requirements of the Executive Order. The Executive Order defines a "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) materially alter the budgetary impact of entitlement, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

It has been determined that the final rule is not a "significant regulatory action" under the terms of Executive Order 12866, and is therefore not subject to OMB review.

B. Paperwork Reduction Act

The information collection requirements in the final rule have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* (ICR 2098.02). The information collection requirements are not enforceable until OMB approves them.

The information requirements in the final rule are based on notification, recordkeeping, and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A), which are mandatory for all operators

subject to NESHAP. The records and reports required by the final rule are necessary for EPA to identify major sources and new or reconstructed sources subject to the rule, ensure that MACT is being properly applied, and ensure that the emission control devices are being properly operated and maintained on a continuous basis. Based on the reported information, EPA can decide which plants, records, or processes should be inspected. These recordkeeping and reporting requirements are specifically authorized by section 112 of the CAA (42 U.S.C. 7414). All information submitted to the EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to Agency policies in 40 CFR part 2, subpart B.

The annual average public reporting and recordkeeping burden for this collection of information over the first 3 years of the information collection request (ICR) is estimated to total 731 labor hours per year. This includes six responses per year from one respondent with an average of 122 hours per response. The total annualized cost burden to the facility is estimated at $43,000, including labor, capital, and operation and maintenance. No additional capital cost for monitoring devices or annual costs for operation and maintenance costs are attributable to the final rule because the affected plant has already installed all continuous monitoring systems as a result of State requirements.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purpose of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control number for EPA's regulations in 40 CFR part 63 are listed in 40 CFR part 9. When the ICR is approved by OMB, the Agency will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number for the approved information collection requirements contained in the final rule.

C. Regulatory Flexibility Act

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the final rule. The EPA has also determined that the final rule will not have a significant economic impact on a substantial number of small entities. For purposes of assessing the impacts of today's final rule on small entities, small entity is defined as: (1) A small business according to Small Business Administration (SBA) size standards for NAICS code 331419 (*i.e.*, Primary Magnesium Refining) of 1,000 or fewer employees; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's final rule on small entities, EPA has concluded that this action will not have a significant economic impact on a substantial number of small entities. Based on the above definition of small entities, no small entities are subject to the final rule and its requirements.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, the EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures by State, local, and tribal governments, in the aggregate, or by the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires the EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least-burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows the EPA to adopt an alternative other than the least-costly, most cost-effective, or least-burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before the EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

Today's final rule contains no Federal mandate (under the regulatory provisions of the UMRA) for State, local, or tribal governments. The EPA has determined that the final rule does not contain a Federal mandate that may result in estimated costs of $100 million or more to either State, local, or tribal governments, in the aggregate, or to the private sector in any 1 year. The maximum total annual cost of the final rule for any year has been estimated to be less than $48,000. Thus, the final rule is not subject to sections 202 and 205 of the UMRA. In addition, the EPA has determined that the final rule contains no regulatory requirements that might significantly or uniquely affect small governments because it contains no requirements that apply to such governments or impose obligations upon them. Therefore, today's final rule is not subject to the requirements of section 203 of the UMRA.

E. Executive Order 13132: Federalism

Executive Order 13132 (64 FR 43255, August 10, 1999) requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

The final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and

responsibilities among the various levels of government, as specified in Executive Order 13132. None of the affected facilities are owned or operated by State governments. Thus, Executive Order 13132 does not apply to the final rule.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175 (65 FR 67249, November 6, 2000), requires the EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications."

The final rule does not have tribal implications, as specified in Executive Order 13175. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes. No tribal governments own facilities subject to the final rule. Thus, Executive Order 13175 does not apply to the final rule.

G. Executive Order 13045: Protection of Children From Environmental Health & Safety Risks

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be "economically significant," as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the EPA must evaluate the environmental health or safety effects of the planned rule on children and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The final rule is not subject to Executive Order 13045 because it is based on technology and not on health or safety risks.

H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use

The final rule is not subject to Executive Order 13211 (66 FR 28355, May 22, 2001) because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Public Law 104–113; 15 U.S.C 272 *note*), directs the EPA to use voluntary consensus standards in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impracticable. Voluntary consensus standards are technical standards (such as material specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus standard bodies. The NTTAA directs EPA to provide Congress, through annual reports to OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

The final rule involves technical standards. Therefore, the EPA conducted a search to identify potentially applicable voluntary consensus standards. However, we identified no such standards as alternatives to EPA Methods 1, 2, 2F, 2G, 3, 3A, 3B, 4, 5, 5D, 23, 26, 26A, 201, and 201A and none were brought to our attention in comments. The search and review results are available in Docket OAR–2002–0043.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing the final rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the final rule in the **Federal Register**. The final rule is not a "major rule" as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 64

Environmental protection, Air pollution control, Hazardous substances, Reporting and recordkeeping requirements.

Dated: August 25, 2003.

Marianne Lamont Horinko,

Acting Administrator.

■ For the reasons stated in the preamble, title 40, chapter I, part 63 of the Code of the Federal Regulations is amended as follows:

PART 63—[AMENDED]

■ 1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

■ 2. Part 63 is amended by adding subpart TTTTT to read as follows:

Subpart TTTTT—National Emissions Standards for Hazardous Air Pollutants for Primary Magnesium Refining

Sec.

What This Subpart Covers

63.9880 What is the purpose of this subpart?
63.9881 Am I subject to this subpart?
63.9882 What parts of my plant does this subpart cover?
63.9883 When do I have to comply with this subpart?

Emission Limitations and Work Practice Standards

63.9890 What emission limitations must I meet?
63.9891 What work practice standards must I meet for my fugitive dust sources?

Operation and Maintenance Requirements

63.9900 What are my operation and maintenance requirements?

General Compliance Requirements

63.9910 What are my general requirements for complying with this subpart?

Initial Compliance Requirements

63.9911 By what date must I conduct performance tests or other initial compliance demonstrations?
63.9912 When must I conduct subsequent performance tests?
63.9913 What test methods and other procedures must I use to demonstrate initial compliance with the emission limits for particulate matter and PM_{10}?
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What This Subpart Covers

§ 63.9880 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for primary magnesium refineries. This subpart also establishes requirements to demonstrate initial and continuous compliance with all applicable emission limitations, work practice standards, and operation and maintenance requirements.

§ 63.9881 Am I subject to this subpart?

You are subject to this subpart if you own or operate a primary magnesium refinery that is (or is part of) a major source of hazardous air pollutant (HAP) emissions. Your primary magnesium refinery is a major source of HAP if it emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year.

§ 63.9882 What parts of my plant does this subpart cover?

(a) The affected sources are each new and existing primary magnesium refining facility.

(b) This subpart covers emissions from each spray dryer stack, magnesium chloride storage bins scrubber stack, melt/reactor system stack, and launder off-gas system stack at your primary magnesium refining facility. This subpart also covers fugitive dust emissions.

(c) Each primary magnesium refining facility is existing if you commenced construction or reconstruction of the affected source before January 22, 2003.

(d) Each primary magnesium refining facility is new if you commence construction or reconstruction of the affected source on or after January 22, 2003. An affected source is reconstructed if it meets the definition of reconstruction in § 63.2.

§ 63.9883 When do I have to comply with this subpart?

(a) If you have an existing source, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you no later than October 11, 2004.

(b) If you have a new affected source and its initial startup date is on or before October 11, 2003, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you by October 10, 2003.

(c) If you have a new affected source and its initial startup date is after October 10, 2003, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you upon initial startup.

(d) If your primary magnesium refinery is an area source that becomes a major source of HAP, the compliance dates in paragraphs (d)(1) and (2) of this section apply to you:

(1) Any portion of the existing primary magnesium refinery that is a new affected source or a new reconstructed source must be in compliance with this subpart upon startup.

(2) All other parts of the primary magnesium refinery must be in compliance with this subpart no later than 2 years after it becomes a major source.

(e) You must meet the notification and schedule requirements in § 63.9930. Several of these notifications must be submitted before the compliance date for your affected source.

Emission Limitations and Work Practice Standards

§ 63.9890 What emission limitations must I meet?

(a) You must meet each emission limit in Table 1 to this subpart that applies to you.

(b) For each wet scrubber applied to meet any particulate matter, particulate matter less than 10 microns (PM_{10}), chlorine, hydrochloric acid, or dioxins/furans emission limit in Table 1 to this subpart, you must maintain the hourly average pressure drop and scrubber liquid flow rate at or above the minimum level established during the initial or subsequent performance test.

§ 63.9891 What work practice standards must I meet for my fugitive dust sources?

(a) You must prepare and at all times operate according to a fugitive dust emissions control plan that describes in detail the measures that will be put in place to control fugitive dust emissions from all unpaved roads and other unpaved operational areas.

(b) You must submit a copy of your fugitive dust emissions control plan for approval to the Administrator on or before the applicable compliance date for the affected source as specified in § 63.9883. The requirement to operate according to the fugitive dust emissions control plan must be incorporated by reference in the source's operating permit issued by the permitting authority under 40 CFR part 70 or 40 CFR part 71.

(c) You can use an existing fugitive dust emissions control plan provided it meets the requirements in paragraphs (c)(1) through (3) of this section.

(1) The plan satisfies the requirements of paragraph (a) of this section.

(2) The plan describes the current measures to control fugitive dust emission sources.

(3) The plan has been approved as part of a State implementation plan or title V permit.

(d) You must maintain a current copy of the fugitive dust emissions control plan on-site and available for inspection upon request. You must keep the plan for the life of the affected source or until the affected source is no longer subject to the requirements of this subpart.

Operation and Maintenance Requirements

§ 63.9900 What are my operation and maintenance requirements?

(a) As required by § 63.6(e)(1)(i), you must always operate and maintain your affected source, including air pollution

control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by this subpart.

(b) You must prepare and operate at all times according to a written operation and maintenance plan for each control device subject to an operating limit in § 63.9890(b). Each plan must address preventative maintenance for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

(c) You must maintain a current copy of the operation and maintenance plan required in paragraph (b) of this section on-site and available for inspection upon request. You must keep the plan for the life of the affected source or until the affected source is no longer subject to the requirements of this subpart.

General Compliance Requirements

§ 63.9910 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations, work practice standards, and operation and maintenance requirements in this subpart at all times, except during periods of startup, shutdown, and malfunction as defined in § 63.2.

(b) You must develop and implement a written startup, shutdown and malfunction plan according to the provisions in § 63.6(e)(3).

Initial Compliance Requirements

§ 63.9911 By what date must I conduct performance tests or other initial compliance demonstrations?

(a) As required in § 63.7(a)(2), you must conduct a performance test to demonstrate initial compliance with each emission limit in Table 1 to this subpart that applies to you as indicated in paragraphs (a)(1) through (3) of this section:

(1) Within 180 calendar days after the compliance date that is specified in § 63.9883 for your existing affected source;

(2) By April 7, 2004 for a new source that has an initial startup date before October 10, 2003; or

(3) Within 180 days after initial startup for a new source that has an initial startup date after October 10, 2003.

(b) For each operation and maintenance requirement that applies to you where initial compliance is not demonstrated using a performance test, you must demonstrate initial compliance within 30 calendar days after the compliance date that is specified for your affected source in § 63.9883.

(c) If you commenced construction or reconstruction between January 22, 2003 and October 10, 2003, you must demonstrate initial compliance with either the proposed emission limitation or the promulgated emission limitation no later than April 7, 2004 or no later than 180 calendar days after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

(d) If you commenced construction or reconstruction between January 22, 2003 and October 10, 2003, and you chose to comply with the proposed emission limit when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limit by April 11, 2005, or after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

§ 63.9912 When must I conduct subsequent performance tests?

You must conduct subsequent performance tests to demonstrate continuous compliance with all applicable emission limits in Table 1 to this subpart no less frequently than twice (at mid-term and renewal) during each term of your title V operating permit.

§ 63.9913 What test methods and other procedures must I use to demonstrate initial compliance with the emission limits for particulate matter and PM_{10}?

(a) You must conduct each performance test that applies to your affected source according to the requirements in § 63.7(e)(1).

(b) To determine compliance with the applicable emission limits for particulate matter in Table 1 to this subpart, you must follow the test methods and procedures in paragraphs (b)(1) and (2) of this section.

(1) Determine the concentration of particulate matter according to the following test methods in appendix A to 40 CFR part 60:

(i) Method 1 to select sampling port locations and the number of traverse points. Sampling ports must be located at the outlet of the control device and prior to any releases to the atmosphere.

(ii) Method 2, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 5 or 5D, as applicable, to determine the concentration of particulate matter.

(vi) Method 201 or 201A, as applicable, to determine the concentration of PM_{10}.

(2) Collect a minimum sample volume of 60 dry standard cubic feet (dscf) during each particulate matter or PM_{10} test run. Three valid test runs are needed to comprise a performance test.

(c) Compute the mass emissions rate in pounds per hour (lbs/hr) for each test run using Equation 1 of this section:

$$E_{lbs/hr} = \frac{C_s \times Q_{std} \times 60}{7{,}000} \qquad \text{(Eq. 1)}$$

Where:

$E_{lbs/hr}$ = Mass emissions rate of particulate matter or PM_{10} (lbs/hr);

C_s = Concentration of particulate matter or PM_{10} in the gas stream, grains per dry standard cubic feet (gr/dscf);

Q_{std} = Volumetric flow rate of stack gas, dry standard cubic feet per minute (dscfm);

60 = Conversion factor, minutes per hour (min/hr); and

7,000 = Conversion factor, grains per pound (gr/lb).

§ 63.9914 What test methods and other procedures must I use to demonstrate initial compliance with chlorine and hydrochloric acid emission limits?

(a) You must conduct each performance test that applies to your affected source according to the requirements in § 63.7(e)(1).

(b) To determine compliance with the applicable emission limits for chlorine and hydrochloric acid in Table 1 to this subpart, you must follow the test methods and procedures specified in paragraphs (b)(1) and (2) of this section.

(1) Determine the concentration of chlorine and hydrochloric acid according to the following test methods in appendix A to 40 CFR part 60:

(i) Method 1 to select sampling port locations and the number of traverse points. Sampling ports must be located at the outlet of the control device and prior to any releases to the atmosphere.

(ii) Method 2, 2F, or 2G to determine the volumetric flow of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 26 or 26A, as applicable, to determine the concentration of hydrochloric acid and chlorine.

(2) Collect a minimum sample of 60 dscf during each test run for chlorine and hydrochloric acid. Three valid test runs are needed to comprise a performance test.

(c) Compute the mass emissions rate (lbs/hr) for each test run using Equation 1 of this section:

$$E_{lbs/hr} = \frac{C_s \times Q_{std} \times 60}{35.31 \times 454{,}000} \quad \text{(Eq. 1)}$$

Where:

$E_{lbs/hr}$ = Mass emissions rate of chlorine or hydrochloric acid (lbs/hr);
C_s = Concentration of chlorine or hydrochloric acid in the gas stream, milligrams per dry standard cubic meter (mg/dscm);
Q_{std} = Volumetric flow rate of stack gas (dscfm);
60 = Conversion factor (min/hr);
35.31 = Conversion factor (dscf/dscm); and
454,000 = Conversion factor (mg/lb).

§ 63.9915 What test methods and other procedures must I use to demonstrate initial compliance with dioxin/furan emission limits?

(a) You must conduct each performance test that applies to your affected source according to the requirements in § 63.7(e)(1).

(b) To determine compliance with the applicable emission limit for dioxins/furans in Table 1 to this subpart, you must follow the test methods and procedures specified in paragraphs (b)(1) and (2) of this section.

(1) Determine the concentration of dioxin and furan according to the following test methods in appendix A to 40 CFR part 60:

(i) Method 1 to select sampling port locations and the number of traverse points. Sampling ports must be located at the outlet of the control device and prior to any releases to the atmosphere.

(ii) Method 2, 2F, or 2G to determine the volumetric flow of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 23 to determine the concentration of dioxins/furans. For each dioxin/furan congener measured in accordance with this paragraph (b)(v), multiply the congener concentration by its corresponding toxic equivalency factor specified in Table 2 of this subpart.

(2) Collect a minimum sample of 100 dscf during each test run. Three valid test runs are needed to comprise a performance test.

§ 63.9916 What test methods and other procedures must I use to establish and demonstrate initial compliance with the operating limits?

For a wet scrubber subject to operating limits for pressure drop and scrubber water flow rate in § 63.9890(b), you must establish site-specific operating limits according to the procedures in paragraphs (a) and (b) of this section.

(a) Using the continuous parameter monitoring system (CPMS) required in § 63.9920, measure and record the pressure drop and scrubber water flow rate at least every 15 minutes during each run of the particulate matter performance test.

(b) Compute and record the average pressure drop and scrubber water flow rate for each individual test run. Your operating limits are the lowest average individual pressure drop and scrubber water flow rate values in any of the three runs that meet the applicable emission limit.

§ 63.9917 How do I demonstrate initial compliance with the emission limitations and work practice standards that apply to me?

(a) For each affected source subject to an emission limit in Table 1 to this subpart, you have demonstrated initial compliance if:

(1) You have met the conditions in Table 3 to this subpart; and

(2) For each wet scrubber subject to the operating limits for pressure drop and scrubber water flow rate in § 63.9890(b), you have established appropriate site-specific operating limits and have a record of the pressure drop and scrubber water flow rate measured during the performance test in accordance with § 63.9916.

(b) You have demonstrated initial compliance with the work practice standards in § 63.9891 if you have certified in your notification of compliance status that:

(1) You have prepared a fugitive dust emissions control plan according to the requirements in § 63.9891 and submitted the plan for approval; and

(2) You will operate according to the requirements in the plan.

§ 63.9918 How do I demonstrate initial compliance with the operation and maintenance requirements that apply to me?

You must demonstrate initial compliance by certifying in your notification of compliance status that you have met the requirements in paragraphs (a) and (b) of this section.

(a) You have prepared the operation and maintenance plan according to the requirements in § 63.9910; and

(b) You will operate each control device according to the procedures in the plan.

Continuous Compliance Requirements

§ 63.9920 What are my continuous monitoring requirements?

For each wet scrubber subject to the operating limits for pressure drop and scrubber water flow rates in § 63.9890(b), you must at all times monitor the hourly average pressure drop and liquid flow rate using a CPMS according to the requirements in § 63.9921(a).

§ 63.9921 What are the installation, operation and maintenance requirements for my monitors?

(a) For each wet scrubber subject to the operating limits in § 63.9890(b) for pressure drop and scrubber water flow rate, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (a)(1) and (2) of this section.

(1) For the pressure drop CPMS, you must:

(i) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure and that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion.

(ii) Use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range.

(iii) Check the pressure tap for pluggage daily.

(iv) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(v) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range, or install a new pressure sensor.

(vi) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

(2) For the scrubber water flow rate CPMS, you must:

(i) Locate the flow sensor and other necessary equipment in a position that provides a representative flow and that reduces swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(ii) Use a flow sensor with a minimum measurement sensitivity of 2 percent of the flow rate.

(iii) Conduct a flow sensor calibration check at least semiannually according to the manufacturer's instructions.

(iv) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

(b) You must install, operate, and maintain each CPMS for a wet scrubber according to the requirements in paragraphs (b)(1) through (3) of this section.

(1) Each CPMS must complete a minimum of one cycle of operation for each successive 15-minute period.

(2) Each CPMS must have valid data for at least 95 percent of every averaging period.

(3) Each CPMS must determine and record the hourly average of all recorded readings.

§ 63.9922 How do I monitor and collect data to demonstrate continuous compliance?

(a) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) at all times an affected source is operating.

(b) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels or to fulfill a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing compliance.

(c) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

§ 63.9923 How do I demonstrate continuous compliance with the emission limitations and work practice standards that apply to me?

(a) For each affected source subject to an emission limit in Table 1 to this subpart, you must demonstrate continuous compliance according to the requirements in Table 4 to this subpart.

(b) For each wet scrubber subject to the operating limits for pressure drop and scrubber water flow rate in § 63.9890(b), you must demonstrate continuous compliance according to the requirements in paragraphs (b)(1) and (2) of this section.

(1) Collecting and reducing the monitoring data according to § 63.9921(b); and

(2) Maintaining the hourly average pressure drop and scrubber water flow rate at or above the minimum level established during the initial or subsequent performance.

(c) You must demonstrate continuous compliance with the work practice standards in § 63.9891 by operating according to the requirements in your fugitive dust emissions control plan and recording information needed to document conformance with the requirements.

§ 63.9924 How do I demonstrate continuous compliance with the operation and maintenance requirements that apply to me?

For each emission point subject to an emission limit in Table 1 to this subpart, you must demonstrate continuous compliance with the operation and maintenance requirements in § 63.9900 by performing preventive maintenance for each control device according to § 63.9900(b) and recording all information needed to document conformance with these requirements.

§ 63.9925 What other requirements must I meet to demonstrate continuous compliance?

(a) *Deviations.* You must report each instance in which you did not meet each emission limitation in § 63.9890 or work practice standard in § 63.9891 that applies to you. This includes periods of startup, shutdown, and malfunction. You must also report each instance in which you did not meet each operation and maintenance requirement required in § 63.9900 that applies to you. These instances are deviations from the emission limitations, work practice standards, and operation and maintenance requirements in this subpart. These deviations must be reported according to the requirements in § 63.9931.

(b) *Startups, shutdowns, and malfunctions.* During periods of startup, shutdown, and malfunction, you must operate in accordance with your startup, shutdown, and malfunction plan.

(1) Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the startup, shutdown, and malfunction plan.

(2) The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in § 63.6(e).

Notifications, Reports, and Records

§ 63.9930 What notifications must I submit and when?

(a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8(f)(4), 63.9(b), and 63.9(h) that apply to you by the specified dates.

(b) As specified in § 63.9(b)(2), if you startup your affected source before October 10, 2003, you must submit your initial notification no later than February 9, 2004.

(c) As specified in § 63.9(b)(3), if you start your new affected source on or after October 10, 2003, you must submit your initial notification no later that 120 calendar days after you become subject to this subpart.

(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required in § 63.7(b)(1).

(e) If you are required to conduct a performance test or other initial compliance demonstration, you must submit a notification of compliance status according to § 63.9(h)(2)(ii), and the requirements in paragraphs (e)(1) and (2) of this section:

(1) For each initial compliance demonstration that does not include a performance test, you must submit the notification of compliance status before the close of business on the 30th calendar day following completion of the initial compliance demonstration.

(2) For each initial compliance demonstration that does include a performance test, you must submit the notification of compliance status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to § 63.10(d)(2).

§ 63.9931 What reports must I submit and when?

(a) *Compliance report due dates.* Unless the Administrator has approved a different schedule, you must submit a semiannual compliance report to your permitting authority according to the requirements in paragraphs (a)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.9883 and ending on June 30 or December 31, whichever date comes after the compliance date that is specified for your source in § 63.9883.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after your compliance report is due.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations

pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (a)(1) through (4) of this section.

(b) *Compliance report contents.* Each compliance report must include the information in paragraphs (b)(1) through (3) of this section and, as applicable, paragraphs (b)(4) through (8) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in § 63.10(d)(5)(i).

(5) If there were no deviations from the continuous compliance requirements in §§ 63.9923 and 63.9924 that apply to you, a statement that there were no deviations from the emission limitations, work practice standards, or operation and maintenance requirements during the reporting period.

(6) If there were no periods during which a CPMS was out-of-control as specified in § 63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.

(7) For each deviation from an emission limitation in § 63.9890 that occurs at an affected source where you are not using a CPMS to comply with an emission limitation in this subpart, the compliance report must contain the information in paragraphs (b)(1) through (4) of this section and the information in paragraphs (b)(7)(i) and (ii) of this section. This includes periods of startup, shutdown, and malfunction.

(i) The total operating time of each affected source during the reporting period.

(ii) Information on the number, duration, and cause of deviations (including unknown cause, if applicable) as applicable and the corrective action taken.

(8) For each deviation from an emission limitation occurring at an affected source where you are using a CPMS to comply with the emission limitation in this subpart, you must include the information in paragraphs (b)(1) through (4) of this section and the information in paragraphs (b)(8)(i) through (xi) of this section. This includes periods of startup, shutdown, and malfunction.

(i) The date and time that each malfunction started and stopped.

(ii) The date and time that each continuous monitoring was inoperative, except for zero (low-level) and high-level checks.

(iii) The date, time, and duration that each continuous monitoring system was out-of-control, including the information in § 63.8(c)(8).

(iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(v) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(vi) A breakdown of the total duration of the deviations during the reporting period including those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(vii) A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period.

(viii) A brief description of the process units.

(ix) A brief description of the continuous monitoring system.

(x) The date of the latest continuous monitoring system certification or audit.

(xi) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.

(c) *Immediate startup, shutdown, and malfunction report.* If you had a startup, shutdown, or malfunction during the semiannual reporting period that was not consistent with your startup, shutdown, and malfunction plan, you must submit an immediate startup, shutdown, and malfunction report according to the requirements in § 63.10(d)(5)(ii).

(d) *Part 70 monitoring report.* If you have obtained a title V operating permit for an affected source pursuant to 40 CFR part 70 or 40 CFR part 71, you must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If you submit a compliance report for an affected source along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all the required information concerning deviations from any emissions limitation, work practice standards, or operation and maintenance requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of the compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements for an affected source to your permitting authority.

§ 63.9932 What records must I keep?

(a) You must keep the records as indicated in paragraphs (a)(1) through (3) of this section:

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or notification of compliance status that you submitted, according to the requirements in § 63.10(b)(2)(xiv).

(2) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests and performance evaluations as required in § 63.10(b)(2)(viii).

(b) You must keep the records required in §§ 63.9932 and 63.9933 to show continuous compliance with each emission limitation, work practice standard, and operating and maintenance requirement that applies to you.

§ 63.9933 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1).

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to § 63.10(b)(1). You can keep the records off site for the remaining 3 years.

(d) You must keep your fugitive dust emissions control plan and your operation and maintenance plan on-site

according to the requirements in §§ 63.9891(d) and 63.9900(c).

Other Requirements and Information

§ 63.9940 What parts of the General Provisions apply to me?

Table 4 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

§ 63.9941 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the United States Environmental Protection Agency (U.S. EPA) or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of the EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the non-opacity emission limitations in § 63.9890 and work practice standards in § 63.9891 under § 63.6(g).

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.9942 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, in § 63.2, and in this section as follows:

Chlorine plant bypass scrubber means the wet scrubber that captures chlorine gas during a chlorine plant shut down or failure.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation (including operating limits) or operation and maintenance requirement;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Emission limitation means any emission limit, opacity limit, or operating limit.

Launder off-gas system means a system that collects chlorine and hydrochloric acid fumes from collection points within the melt/reactor system building. The system then removes particulate matter and hydrochloric acid from the collected gases prior to discharge to the atmosphere.

Magnesium chloride storage bins means vessels that store dried magnesium chloride powder produced from the spray drying operation.

Melt/reactor system means a system that melts and chlorinates dehydrated brine to produce high purity molten magnesium chloride feed for electrolysis.

Primary magnesium refining means the production of magnesium metal and magnesium metal alloys from natural sources of magnesium chloride such as sea water or water from the Great Salt Lake and magnesium bearing ores.

Responsible official means responsible official as defined in § 63.2.

Spray dryer means dryers that evaporate brine to form magnesium powder by contact with high temperature gases exhausted from gas turbines.

Wet scrubber means a device that contacts an exhaust gas with a liquid to remove particulate matter and acid gases from the exhaust. Examples are packed-bed wet scrubbers and venturi scrubbers.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the Clean Air Act.

Tables to Subpart TTTTT of Part 63

As required in § 63.9890(a), you must comply with each applicable emission limit in the following table:

TABLE 1 TO SUBPART TTTTT OF PART 63—EMISSION LIMITS

For . . .	You must comply with each of the following . . .
1. Each spray dryer stack	a. You must not cause to be discharged to the atmosphere any gases that contain particulate matter in excess of 100 lbs/hr; and b. You must not cause to be discharged to the atmosphere any gases that contain hydrochloric acid in excess of 200 lbs/hr.
2. Each magnesium chloride storage bins scrubber stack.	a. You must not cause to be discharged to the atmosphere any gases that contain hydrochloric acid in excess of 47.5 lbs/hr and 0.35 gr/dscf; and b. You must not cause to be discharged to the atmosphere any gases that contain PM_{10} in excess of 2.7 lbs/hr and 0.016 gr/dscf.
3. Each melt/reactor system stack	a. You must not cause to be discharged to the atmosphere any gases that contain PM_{10} in excess of 13.1 lbs/hr; and b. You must not cause to be discharged to the atmosphere any gases that contain hydrochloric acid in excess of 7.2 lbs/hr; and c. You must not cause to be discharged to the atmosphere any gases that contain chlorine in excess of 100 lbs/hr; and d. You must not cause to be discharged to the atmosphere any gases that contain 36 ng TEQ/dscm corrected to 7% oxygen.
4. Each launder off-gas system stack	a. You must not cause to be discharged to the atmosphere any gases that contain particulate matter in excess of 37.5 lbs/hr; and b. You must not cause to be discharged to the atmosphere any gases that contain hydrochloric acid in excess of 46.0 lbs/hr; and

TABLE 1 TO SUBPART TTTTT OF PART 63—EMISSION LIMITS—Continued

For . . .	You must comply with each of the following . . .
	c. You must not cause to be discharged to the atmosphere any gases that contain chlorine in excess of 26.0 lbs/hr.

TABLE 2 TO SUBPART TTTTT OF PART 63—TOXIC EQUIVALENCY FACTORS

Dioxin/furan congener	Toxic equivalency factor
2,3,7,8-tetrachlorinated dibenzo-p-dioxin	1
1,2,3,7,8-pentachlorinated dibenzo-p-dioxin	1
1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin	0.01
octachlorinated dibenzo-p-dioxin	0.0001
2,3,7,8-tetrachlorinated dibenzofuran	0.1
2,3,4,7,8-pentachlorinated dibenzofuran	0.5
1,2,3,7,8-pentachlorinated dibenzofuran	0.05
1,2,3,4,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,7,8,9-hexachlorinated dibenzofuran	0.1
2,3,4,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzofuran	0.01
1,2,3,4,7,8,9-heptachlorinated dibenzofuran	0.01
octachlorinated dibenzofuran	0.0001

As required in 63.9916, you must demonstrate initial compliance with the emission limits according to the following table:

TABLE 3 TO SUBPART TTTTT OF PART 63—INITIAL COMPLIANCE WITH EMISSION LIMITS

For . . .	You have demonstrated initial compliance if . . .
1. Each spray dryer stack	a. The average mass flow of particulate matter from the control system applied to emissions from each spray dryer, measured according to the performance test procedures in §63.9913(c), did not exceed 100 lbs/hr; and b. The average mass flow of hydrochloric acid from the control system applied to emissions from each spray dryer, determined according to the performance test procedures in §63.9914(c), did not exceed 200 lbs/hr.
2. Each magnesium chloride storage bin scrubber stack.	a. The average mass flow of hydrochloric acid from the control system applied to the magnesium chloride storage bins scrubber exhaust, measured according to the performance test procedure in §63.9914, did not exceed 47.5 lbs/hr and 0.35 gr/dscf; and b. The average mass flow of PM_{10} from the control system applied to the magnesium chloride storage bins scrubber exhaust, determined according to the performance test procedures in §63.9913, did not exceed 2.7 lbs/hr and 0.016 gr/dscf.
3. Each melt/reactor system stack	a. The average mass flow of PM_{10} from the control system applied to the melt/reactor system exhaust, measured according to the performance test procedures in §63.9913, did not exceed 13.1 lbs/hr; and b. The average mass flow of hydrochloric acid from the control system applied to the melt/reactor system exhaust, measured according to the performance test procedures in §63.9914, did not exceed 7.2 lbs/hr; and c. The average mass flow of chlorine from the control system applied to the melt/reactor system exhaust, measured according to the performance test procedures in §63.9914, did not exceed 100 lbs/hr. d. The average concentration of dioxins/furans from the control system applied to the melt/reactor system exhaust, measured according to the performance test procedures in §63.9915, did not exceed 36 ng TEQ/dscm corrected to 7% oxygen.
4. Each launder off-gas system stack	a. The average mass flow of particulate matter from the control system applied to the launder off-gas system collection system exhaust, measured according to the performance test procedures in §63.9913, did not exceed 37.5 lbs/hr; and b. The average mass flow of hydrochloric acid from the control system applied to the launder off-gas system collection system exhaust, measured according to the performance test procedures in §63.9914, did not exceed 46.0 lbs/hr; and c. The average mass flow of chlorine from the control system applied to the launder off-gas system collection system exhaust, measured according to the performance test procedures in §63.9914, did not exceed 26.0 lbs/hr.

As required in § 63.9923, you must demonstrate continuous compliance with the emission limits according to the following table:

TABLE 4 TO SUBPART TTTTT OF PART 63—CONTINUOUS COMPLIANCE WITH EMISSION LIMITS

For . . .	You must demonstrate continuous compliance by . . .
1. Each spray dryer stack	a. Maintaining emissions of PM_{10} at or below 100 lbs/hr; and b. Maintaining emissions of hydrochloric acid at or below 200 lbs/hr; and c. Conducting subsequent performance tests at least twice during each term of your title V operating permit (at mid-term and renewal).
2. Magnesium chloride storage bins scrubber stack.	a. Maintaining emissions of hydrochloric acid at or below 47.5 lbs/hr and 0.35 gr/dscf; and b. Maintaining emissions of PM_{10} at or below 2.7 lbs/hr and 0.016 gr/dscf; and c. Conducting subsequent performance tests at least twice during each term of your title V operating permit (at mid-term and renewal).
3. Each melt/reactor system stack	a. Maintaining emissions of PM_{10} at or below 13.1 lbs/hr; and b. Maintaining emissions of hydrochloric acid at or below 7.2 lbs/hr; and c. Maintaining emissions of chlorine at or below 100 lbs/hr; and d. Maintaining emissions of dioxins/furans at or below 36 ng TEQ/dscm corrected to 7% oxygen. e. Conducting subsequent performance test at least twice during each term of your title V operating permit (at mid-term and renewal).
4. Each launder off-gas system stack	a. Maintaining emissions of particulate matter at or below 37.5 lbs/hr; and b. Maintaining emissions of hydrochloric acid at or below 46.0 lbs/hr; and c. Maintaining emissions of chlorine at or below 26.0 lbs/hr; and d. Conducting subsequent performance tests at least twice during each term of your title V operating permit (at mid-term and renewal).

As required in § 63.9950, you must comply with the requirements of the NESHAP General Provisions (40 CFR part 63, subpart A) shown in the following table:

TABLE 5 TO SUBPART TTTTT OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART TTTTT OF PART 63

Citation	Subject	Applies to Subpart TTTTT	Explanation
63.1	Applicability	Yes.	
63.2	Definitions	Yes.	
63.3	Units and Abbreviations	Yes.	
63.4	Prohibited Activities	Yes.	
63.5	Construction and Reconstruction	Yes.	
63.6(a)–(g)	Compliance with Standards and Maintenance Requirements.	Yes.	
63.6(h)	Determining Compliance with Opacity and Visible Emission Standards.	No.	
63.6(i)–(j)	Extension of Compliance and Presidential Compliance Exemption.	Yes.	
63.7(a)(1)–(2)	Applicability and Performance Test Dates.	No	Subpart TTTTT specifies performance test applicability and dates.
63.7(a)(3), (b)–(h)	Performance Testing Requirements	Yes.	
63.8 except for (a)(4),(c)(4), and (f)(6)	Monitoring Requirements	Yes.	
63.8(a)(4)	Additional Monitoring Requirements for Control Devices in § 63.11.	No	Subpart TTTTT does not require flares.
63.8(c)(4)	Continuous Monitoring System Requirements.	No	Subpart TTTTT specifies requirements for operation of CMS.
63.8(f)(6)	Relative Accuracy Test Alternative (RATA).	No	Subpart TTTTT does not require continuous emission monitoring systems.
63.9	Notification Requirements	Yes.	
63.9(g)(5)	Data Reduction	No	Subpart TTTTT specifies data reduction requirements.
63.10 except for (b)(2)(xiii) and (c)(7)–(8)	Recordkeeping and Reporting Requirements.	Yes.	
63.10(b)(2)(xiii)	Continuous Monitoring System (CMS) Records for RATA Alternative.	No	Subpart TTTTT does not require continuous emission monitoring systems.
63.10(c)(7)–(8)	Records of Excess Emissions and Parameter Monitoring Accedences for CMS.	No	Subpart TTTTT specifies recordkeeping requirements.
63.11	Control Device Requirements	No	Subpart TTTTT does not require flares.
63.12	State Authority and Delegations	Yes.	

TABLE 5 TO SUBPART TTTTT OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART TTTTT OF PART 63—Continued

Citation	Subject	Applies to Subpart TTTTT	Explanation
63.13–63.15	Addresses, Incorporation by Reference, Availability of Information.	Yes.	

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FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 1 and 25

[IB Docket No. 02–30; FCC 03–197]

Licensing Domestic Satellite Earth Stations in the Bush Communities of Alaska

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: The Federal Communications Commission (FCC) has adopted a Report and Order that discontinue the Alaska Bush Earth Station Policy (Alaska Bush Policy), which precludes installing or operating more than one satellite earth station in any Alaskan Bush community for competitive carriage of interstate Message Telephone Service (MTS) communications, *i.e.*, ordinary interstate, interexchange toll telephone calls. Alaska Bush communities, as defined for purposes of the policy, are rural Alaskan communities of less than 1,000 residents that are isolated from larger cities by rugged terrain and harsh weather conditions.

DATES: Effective November 10, 2003.

FOR FURTHER INFORMATION CONTACT: JoAnn Lucanik at (202) 418–0873. Internet: *JoAnn.Lucanki@fcc.gov,* International Bureau, Federal Communications Commission, 445 12th Street, SW., Washington, DC 20554.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Report in IB Docket No. 02–30, RM No. 7246, FCC 03–197, adopted August 6, 2003. The complete text of this decision is available for inspection and copying during normal business hours in the FCC Reference Information Center Portals II, 445 12th Street, SW., Room CY–A257, Washington, DC 20554, and also may be purchased from the Commission's copy contractor, Qualex International Portals II, 445 12th Street, SW., Room CY–B402, Washington, DC 20554, telephone (202) 863–2893, facsimile (202) 863–2898, or via e-mail, *qualexint@aol.com.*

Summary of the Report and Order

The Federal Communications Commission has adopted a Report and Order that will discontinue the Alaska Bush Policy. This action eliminates a long-standing exception to the Commission's general policy favoring open entry for facilities-based competition in the provision of interstate MTS telecommunications services. We believe that allowing facilities-based competition of interstate MTS in Alaska Bush communities will encourage improvement in the quality of service available in those communities, promote more efficient delivery of service, and reduce incentives for overcharging for use of these facilities.

A complete history of the Alaska Bush Policy may be found in the Notice of Proposed Rulemaking in this proceeding and will not be repeated here. *See Policy for Licensing Domestic Satellite Earth Stations in the Bush Communities of Alaska,* Notice of Proposed Rulemaking, 67 FR 37750 (May 30, 2002). Briefly, the policy of licensing only one satellite earth station in each Alaska Bush community to provide conventional interexchange MTS was formulated in the Commission's *Tentative Decision* in 1982. Pursuant to the Alaska Bush Policy, Alascom, Inc. (Alascom), now a wholly owned subsidiary of AT&T Corp., alone or in partnership with United Utilities, Inc. (United), a local exchange carrier, was authorized to construct and operate the earth station facilities in the Alaska Bush communities and to provide MTS service. The Alaska Bush Policy was based on the principle that duplicative proposals for facilities in the Alaska Bush communities are mutually exclusive because one facility could provide all the services provided by either party, and there was no public interest benefit in the construction of duplicate MTS facilities.

When the Commission formally adopted the Alaska Bush Policy in 1984, no MTS competition, in any form, had been authorized in Alaska. *See Policies Governing the Ownership and Operation of Domestic Satellite Earth Stations in the Bush Communities in Alaska,* 49 FR 9727 (March 15, 1984), Final Decision. In 1990, however, the Alaska legislature opened most of the State's telecommunications markets to facilities-based competition, but not the Alaska Bush communities. *See* Act of June 7, 1990, 1990 Alaska Sess. Laws Ch. 93; *see also Regulations Governing the Market Structure for Interstate Interexchange Telecommunications Services,* 10 APUC 407 (1990). Five years later the Regulatory Commission of Alaska (RCA) granted General Communication, Inc. (GCI), an Alaskan facilities-based interstate long distance carrier, a temporary waiver, allowing it to install earth stations in 50 Alaska Bush communities and to provide intrastate MTS in competition with Alascom on an experimental basis. The following year the FCC's International Bureau (Bureau) granted GCI's request to waive the Alaska Bush Policy in the same 50 Alaska Bush communities, thus allowing GCI to use its earth stations to provide both interstate and intrastate MTS in these 50 communities. *See Petition of General Communication, Inc. for a Partial Waiver of the Bush Earth Station Policy,* Memorandum Opinion and Order, 11 FCC Rcd 2535 (Int'l Bur. 1996) (GCI Waiver). The Bureau concluded that the potential public interest benefits of providing the 50 Alaska Bush communities with increased service options, improved quality, and lower rates outweighed a rigid adherence to a policy that does not provide for technological advancements and market changes.

In 2000, the RCA found that allowing GCI to construct duplicate earth stations in the 50 Alaska Bush communities had, in fact, led to a more efficient use of available satellite resources, resulting in consumers benefiting from lower retail rates and improved service quality. In view of its finding, the RCA eliminated Alaska's restrictions on facilities-based MTS competition in the Alaskan Bush. *See Consideration of the Reform of Intrastate Interexchange Telecommunications Market Structure and Regulations in Alaska,* Docket R–98–1, Order No. 6 (RCA, Nov. 20, 2000) (not published in the **Federal Register**).



Federal Register

Thursday,
October 30, 2003

Part II

Environmental Protection Agency

40 CFR Part 63
National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[OAR 2002–0039; FRL–7551–2]

RIN 2060–AJ02

National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national emission standards for hazardous air pollutants (NESHAP) for taconite iron ore processing facilities. The final standards establish emission limitations for hazardous air pollutants (HAP) emitted from new and existing ore crushing and handling operations, ore dryers, indurating furnaces, and finished pellet handling operations. The final standards will implement section 112(d) of the Clean Air Act (CAA) by requiring all major sources to meet HAP emission standards reflecting application of the maximum achievable control technology (MACT).

The HAP emitted by taconite iron ore processing facilities include metal compounds (such as manganese, arsenic, lead, nickel, chromium, and mercury), products of incomplete combustion (including formaldehyde), and the acid gases hydrogen chloride (HCl) and hydrogen fluoride (HF). Exposure to these substances has been demonstrated to cause adverse health effects, including chronic and acute disorders of the blood, heart, kidneys, reproductive system, respiratory system and central nervous system. Some of these substances are considered carcinogens. However, it should be noted that the extent and degree to which the health effects may be experienced depend on:

Pollutant-specific characteristics (*e.g.*, toxicity, half-life in the environment, bioaccumulation, and persistence); The ambient concentrations observed in the area (*e.g.*, as influenced by emission rates, meteorological conditions, and terrain); The frequency and duration of exposures; and Characteristics of exposed individuals (*e.g.*, genetics, age, pre-existing health conditions, and lifestyle), which vary significantly within the general population.

EFFECTIVE DATE: October 30, 2003.

ADDRESSES: *Docket.* The official public docket is the collection of materials used in developing the final rule and is available for public viewing at the EPA Docket Center (EPA/DC), EPA West, Room B102, 1301 Constitution Ave., NW, Washington, DC 20460.

FOR FURTHER INFORMATION CONTACT: Conrad Chin, Metals Group (C439–02), Emission Standards Division, U.S. EPA, Research Triangle Park, NC 27711, telephone number (919) 541–1512, electronic mail (e-mail) address, *chin.conrad@epa.gov.*

SUPPLEMENTARY INFORMATION:

Regulated Entities. Categories and entities potentially regulated by this action include:

Category	NAICS code [1]	Example of regulated entities
Industry	21221	Taconite Iron Ore Processing Facilities [taconite ore crushing and handling operations, indurating furnaces, finished pellet handling operations, and ore dryers].
Federal government		Not affected.
State/local/tribal government		Not affected.

[1] North American Industry Classification System.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your facility is regulated by this action, you should examine the applicability criteria in § 63.9581 of the final rule. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Docket. The EPA has established an official public docket for this action including both Docket ID No. OAR–2002–0039 and Docket ID No. A–2001–14. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. All items may not be listed under both docket numbers, so interested parties should inspect both docket numbers to ensure that they have received all materials relevant to the final rule. Although a part of the official docket, the public docket does not include Confidential Business Information or other information whose disclosure is restricted by statute. The official public docket is available for public viewing at the EPA Docket Center (Air Docket), EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742.

Electronic Docket Access. You may access the final rule electronically through the EPA Internet under the "**Federal Register**" listings at *http://www.epa.gov/fedrgstr/.*

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Once in the system, select "search," then key in the appropriate docket identification number. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility in the above paragraph entitled "Docket."

Worldwide Web (WWW). In addition to being available in the docket, an electronic copy of the final rule will also be available on the WWW through the Technology Transfer Network (TTN). Following signature, a copy of the final rule will be placed on the TTN's policy and guidance page for newly proposed or promulgated rules at *http://www.epa.gov/ttn/oarpg.* The TTN provides information and technology exchange in various areas of air pollution control. If more information regarding the TTN is needed, call the TTN HELP line at (919) 541–5384.

Judicial Review. This action constitutes final administrative action on the proposed NESHAP for taconite iron ore processing facilities (67 FR 77562, December 18, 2002). Under CAA section 307(b)(1), judicial review of the final rule is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by December 29, 2003. Under

CAA section 307(b)(2), the requirements that are the subject of this document may not be challenged later in civil or criminal proceedings brought by the EPA to enforce these requirements.

Outline. The information presented in this preamble is organized as follows:

I. Background
II. Summary of Final Rule
A. Who must comply with the final rule?
B. What are the affected sources and emission points?
C. What are the emission limitations?
D. What are the operation and maintenance requirements?
E. What are the general compliance requirements?
F. What are the initial compliance requirements?
G. What are the continuous compliance requirements?
H. What are the notification, recordkeeping, and reporting requirements?
I. What are the compliance deadlines?
III. Summary of Responses to Major Comments
A. How did we revise the cost estimates and economic analysis?
B. How did we revise the performance testing requirements?
C. How did we revise the emission limitations?
D. How did we revise the continuous compliance requirements?
E. How did we revise the baseline emissions?
F. How did we select the pollutants?
IV. Summary of Environmental, Energy, and Economic Impacts
A. What are the air emission impacts?
B. What are the cost impacts?
C. What are the economic impacts?
D. What are the non-air health, environmental and energy impacts?
V. Statutory and Executive Order Reviews
A. Executive Order 12866: Regulatory Planning and Review
B. Paperwork Reduction Act
C. Regulatory Flexibility Act
D. Unfunded Mandates Reform Act
E. Executive Order 13132: Federalism
F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments
G. Executive Order 13045: Protection of Children from Environmental Health & Safety Risks
H. Executive Order 13211: Actions that Significantly Affect Energy Supply, Distribution, or Use
I. National Technology Transfer Advancement Act
J. Congressional Review Act

I. Background

Section 112(d) of the CAA requires us (the EPA) to establish national emission standards for all categories and subcategories of major sources of HAP and for area sources listed for regulation under section 112(c). Major sources are those that emit or have the potential to emit at least 10 tons per year (tpy) of any single HAP or at least 25 tpy of any combination of HAP. Area sources are stationary sources of HAP that are not major sources. Additional information on the NESHAP development process can be found in the preamble to the proposed rule (67 FR 77562).

We received a total of 29 comment letters on the proposed NESHAP from industry, State agencies, Federal agencies, environmental groups, and private citizens. We offered to provide interested individuals the opportunity for oral presentations of data, views, or arguments concerning the proposed rule, but a public hearing was not requested.

Today's final rule reflects our full consideration of all the comments we received. Major public comments on the proposed rule along with our responses to these comments are summarized in section III of this document. A detailed response to all the comments is included in the Background Information Document (BID) for the promulgated standards (Docket ID No. OAR–2002–0039).

II. Summary of Final Rule

A. Who Must Comply With the Final Rule?

Each owner or operator of an affected source at a taconite iron ore processing plant that is (or is part of) a major source of HAP emissions must comply with the final rule. A taconite iron ore processing plant is a major source of HAP if it emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year.

B. What Are the Affected Sources and Emission Points?

The affected sources are each new or existing ore crushing and handling operation, ore dryer, indurating furnace, and finished pellet handling operation at a taconite iron ore processing facility that is (or is part of) a major source of HAP emissions. Emission limitations apply to each ore crushing and handling operation, each ore dryer, each indurating furnace, and each finished pellet handling operation. These processes, as well as their emissions and controls, are described in the preamble to the proposed rule (67 FR 77564–77566).

C. What Are the Emission Limitations?

The final rule includes particulate matter (PM) emission limits, operating limits for control devices, and work practice standards. Particulate matter emissions serve as a surrogate measure of HAP emissions.

Ore Crushing and Handling

The PM emissions limits for ore crushing and handling are 0.008 grains per dry standard cubic foot (gr/dscf) for existing sources and 0.005 gr/dscf for new sources. Compliance with the PM emissions limits for ore crushing and handling is determined based on the flow-weighted mean concentration of emissions for all ore crushing and handling units at the plant.

Ore Dryers

The PM emission limits for each individual ore dryer are 0.052 gr/dscf for existing dryers and 0.025 gr/dscf for new dryers. Ore dryers with multiple stacks calculate their PM emissions as a flow-weighted mean concentration of PM emissions from all stacks.

Indurating Furnaces

For each straight grate indurating furnace processing magnetite, the PM emissions limits are 0.01 gr/dscf for existing straight grate furnaces and 0.006 gr/dscf for new straight grate furnaces. For each grate kiln indurating furnace processing magnetite, the PM emissions limits are 0.01 gr/dscf for existing grate kiln furnaces and 0.006 gr/dscf for new grate kiln furnaces. For each grate kiln indurating furnace processing hematite, the PM emissions limits are 0.03 gr/dscf for existing grate kiln furnaces and 0.018 gr/dscf for new grate kiln furnaces. Indurating furnaces with multiple stacks calculate their PM emissions as a flow-weighted mean concentration of PM emissions from all stacks.

Finished Pellet Handling

The PM emissions limits for finished pellet handling operations are 0.008 gr/dscf for existing sources and 0.005 gr/dscf for new sources. Compliance with the PM emissions limits for finished pellet handling is determined based on the flow-weighted mean concentration of PM emissions for all pellet handling units at the plant.

Operating Limits

For bag leak detection systems, we require that corrective actions be initiated within 1 hour of a bag leak detection system alarm. For dynamic wet scrubbers, the daily average scrubber water flow rate and either the daily average fan amperage or the daily average pressure drop must remain at or above the minimum levels established during the initial performance test. For all other wet scrubbers, the daily average pressure drop and daily average scrubber water flow rate must remain at or above the level established during the initial performance test. Plants using a

dry electrostatic precipitator (ESP) must either install and operate a continuous opacity monitoring system (COMS) or maintain the daily average secondary voltage and daily average secondary current for each field at or above the minimum levels established during the initial performance test. If demonstrating compliance using COMS, the average opacity for each 6-minute period must remain at or below the level established during the initial performance test. Plants using a wet ESP must maintain the daily average secondary voltage for each field at or above the minimum levels established during the initial performance test; maintain the daily average stack outlet temperature at or below the maximum levels established during the initial performance test; and maintain the daily average water flow rate at or above the minimum levels established during the initial performance test.

You must submit information on monitoring parameters if another type of control device is used or if alternative monitoring parameters are desired.

Work Practices

All plants subject to the final rule are required to prepare and implement a written fugitive dust emissions control plan. The plan describes in detail the measures that will be put in place to control fugitive dust emissions from the following sources at a plant, as applicable: stockpiles, material transfer points, plant roadways, tailings basin, pellet loading areas, and yard areas. Existing fugitive dust emission control plans that describe current measures to control fugitive dust emission sources that have been approved as part of a State implementation plan or title V permit would be acceptable, provided they address the prior-listed fugitive dust emission sources.

D. What Are the Operation and Maintenance Requirements?

All plants subject to the final rule must prepare and implement a written startup, shutdown, and malfunction plan according to the requirements in 40 CFR 63.6(e). A written operation and maintenance plan is also required for control devices subject to an operating limit and indurating furnaces subject to good combustion practices (GCP). This plan must describe the following: procedures for preventative maintenance requirements for control devices, corrective action requirements for baghouses and continuous parameter monitoring systems (CPMS), and GCP for indurating furnaces. In the event of a bag leak detection system alarm, the plan must include specific requirements for initiating corrective action to determine the cause of the problem within 1 hour, initiating corrective action to fix the problem within 24 hours, and completing all corrective actions needed to fix the problem as soon as practicable. In the event you exceed an established operating limit for an air pollution control device other than a baghouse, you must initiate corrective action to determine the cause of the operating limit exceedance and complete the corrective action within 10 calendar days. Corrective action procedures you take must be consistent with the installation, operation, and maintenance procedures listed in your site-specific CPMS monitoring plan. For indurating furnaces, you must maintain a proper and efficient combustion process through the implementation of GCP.

E. What Are the General Compliance Requirements?

The final rule requires compliance with the emission limitations, work practice standards, and operation and maintenance requirements at all times, except during periods of startup, shutdown, and malfunction as defined in 40 CFR 63.2. The owner or operator must develop and implement a written startup, shutdown, and malfunction plan according to the requirements in 40 CFR 63.6(e)(3).

The final rule also requires keeping a log detailing the operation and maintenance of the process and emission control equipment. This requirement applies during the period between the compliance date and the date that continuous monitoring systems are installed and any operating limits set.

F. What Are the Initial Compliance Requirements?

The final rule requires performance tests to demonstrate that each affected source meets all applicable PM emission limits. The PM concentration (front-half filterable catch only) is to be measured using EPA Method 5, 5D, or 17 in 40 CFR part 60, appendix A. All initial compliance tests must be completed no later than 180 days following the compliance date.

To demonstrate initial compliance with the PM emission limit for the ore crushing and handling affected source, the flow-weighted mean concentration of PM emissions of all units within the affected source must not exceed the applicable PM emission limit. Similarly, for the finished pellet handling affected source, the flow-weighted mean concentration of PM emissions of all units within the affected source must not exceed the applicable PM emission limit. In lieu of conducting performance tests for all ore crushing and handling and finished pellet handling emission units, the plant may elect to form groups of up to six similar emission units and conduct initial performance tests on a representative unit within each group. Each plant must submit a testing plan to the permitting authority for approval. The testing plan must identify the emission units that will be grouped as similar, identify the representative unit that will be tested for each group, and present the proposed schedule for testing.

To demonstrate initial compliance with the PM emission limit for each indurating furnace and each ore dryer, the flow-weighted mean concentration of PM emissions of all stacks associated with each furnace or each ore dryer must not exceed the applicable PM emission limit.

The final rule also includes procedures for establishing site-specific operating limits for control devices during the initial performance test. To demonstrate initial compliance with the work practice standards, plants must prepare, submit, and implement a fugitive dust emission control plan on or before the compliance date. To demonstrate initial compliance with the operation and maintenance requirements, plants must prepare the operation and maintenance plan and certify in their notification of compliance status that they have prepared the written plans and will operate control devices and indurating furnaces according to the procedures in the plan.

G. What Are the Continuous Compliance Requirements?

For ore crushing and handling, ore dryers, and finished pellet handling units, you must conduct subsequent performance tests to demonstrate continued compliance with the PM emission limits following the schedule established in the title V permit for each plant. If a title V permit has not been issued, you must submit a testing plan and schedule to the permitting authority for approval.

For each indurating furnace, you must conduct subsequent performance testing of all stacks based on the schedule established in each plant's title V operating permit, but no less frequently than twice per 5-year permit term. If a title V permit has not been issued, then you must submit a testing plan and schedule to the permitting authority for approval. The testing frequency in the testing plan must provide for tests to be

conducted at least twice per 5-year period.

You are required to monitor operating parameters for control devices subject to operating limits and carry out the procedures in their fugitive dust emissions control plan and their operation and maintenance plan. To demonstrate continuous compliance, you must keep records documenting compliance with the rule requirements for monitoring, the fugitive dust emissions control plan, the operation and maintenance plan, and installation, operation, and maintenance of a CPMS.

For baghouses, owners or operators are required to monitor the relative change in PM loading using a bag leak detection system and to make inspections at specified intervals. The bag leak detection system must be installed and operated according to the EPA guidance document "Fabric Filter Bag Leak Detection Guidance," EPA 454/R–98–015, September 1997. The document is available on the TTN at *http://www.epa.gov/ttnemc01/cem/tribo.pdf*. If the system does not work based on the triboelectric effect, it must be installed and operated consistent with the manufacturer's written specifications and recommendations. The basic inspection requirements include daily, weekly, monthly, or quarterly inspections of specified parameters or mechanisms with monitoring of bag cleaning cycles by an appropriate method. To demonstrate continuous compliance, the final rule requires records documenting conformance with the operation and maintenance plan, as well as the inspection and maintenance procedures.

For dynamic wet scrubbers, you must use CPMS to measure and record the daily average scrubber water flow rate and either the daily average fan amperage or the daily average pressure drop. For all other wet scrubbers, you must use CPMS to measure and record the daily average pressure drop and daily average scrubber water flow rate.

For dry ESP, you must either use a COMS to measure and record the average opacity of emissions exiting each stack of the control device for each 6-minute period, or use CPMS to measure and record the daily average secondary voltage and daily average secondary current for each field. You must operate and maintain the COMS according to the requirements in 40 CFR 63.8 and Performance Specification 1 in 40 CFR part 60, appendix B. These requirements include a quality control program including a daily calibration drift assessment, quarterly performance audit, and annual zero alignment.

For wet ESP, you must use CPMS to measure and record the daily average secondary voltage for each field, the daily average stack outlet temperature, and the daily average water flow rate.

The final rule requires you to prepare a site-specific monitoring plan for CPMS that addresses installation, performance, operation and maintenance, quality assurance, and recordkeeping and reporting procedures. These requirements replace the more detailed performance specifications contained in the proposed rule.

To demonstrate continuous compliance, you must keep records documenting compliance with the monitoring requirements (including installation, operation, and maintenance requirements for monitoring systems) and the operation and maintenance plan.

H. What Are the Notification, Recordkeeping, and Reporting Requirements?

The notification, recordkeeping, and reporting requirements are based on the NESHAP General Provisions in 40 CFR part 63, subpart A. Table 2 to subpart RRRRR of 40 CFR part 63 lists each of the requirements in the General Provisions (§§ 63.2 through 63.15) with an indication of whether they apply.

You are required to submit each initial notification required in the NESHAP General Provisions that applies to your plant. These include an initial notification of applicability with general information about the plant and notifications of performance tests and compliance status.

You are required to maintain the records required by the NESHAP General Provisions that are necessary to document compliance, such as performance test results; copies of startup, shutdown, and malfunction plans and associated corrective action records; monitoring data; and inspection records. Except for the operation and maintenance plan, the fugitive dust emissions control plan, and the testing plan, all records must be kept for a total of 5 years, with the records from the most recent 2 years kept onsite. The final rule requires that the operation and maintenance plan, the fugitive dust emissions control plan, and the testing plan, be kept onsite and available for inspection upon request for the life of the affected source or until the affected source is no longer subject to the final rule requirements.

Semiannual reports are required for any deviation from an emission limitation (including an operating limit), or operation and maintenance requirement. Each report is due no later than 30 days after the end of the reporting period. If no deviation occurred, only a summary report is required. If a deviation did occur, more detailed information is required.

An immediate report is required if actions taken during a startup, shutdown, or malfunction are not consistent with the startup, shutdown, and malfunction plan. Deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the authority with delegation for enforcement that the source was operating in accordance with the startup, shutdown, and malfunction plan.

An immediate report is required after the third consecutive and unsuccessful attempt at corrective action for determining the cause of exceedance of an operating limit for an air pollution control device except for baghouses. The report must be submitted within 5 calendar days after the third unsuccessful attempt at corrective action. This report must notify the Administrator that a deviation has occurred and document the types of corrective measures taken to address the problem that resulted in the deviation of established operating parameters and the resulting operating limits.

You must also submit the fugitive dust emissions control plan, testing plan, and all operation and maintenance plans to the Administrator on or before the applicable compliance date.

I. What Are the Compliance Deadlines?

The owner or operator of an existing affected source must comply by October 30, 2006. An existing affected source is one constructed or reconstructed before December 18, 2002. New or reconstructed sources that startup on or before October 30, 2003 must comply by October 30, 2003. New or reconstructed sources that startup after October 30, 2003 must comply upon initial startup.

III. Summary of Responses to Major Comments

A. How Did We Revise the Cost Estimates and Economic Analysis?

Comment: Three commenters stated that the estimated total capital cost impact of $47.3 million underestimates the cost to the industry. One of the commenters stated that the costs for their plant were underestimated.

Response: The capital equipment costs used in the cost analysis conducted prior to proposal were based largely on historical industry costs provided by industry and vendor estimates obtained by the EPA. All of

the indurating furnace capital equipment replacement costs were based on equipment and installation costs incurred by Minntac in 1991 to install two new venturi scrubbers for furnace lines 4 and 5. For ore crushing and handling and pellet handling units, the capital equipment replacement costs were based on equipment costs obtained from two wet scrubber vendors.

In follow-up discussions with the industry, industry representatives indicated that the costs of purchasing and installing a new wet scrubber were underestimated. For example, based on the cost estimates provided by one plant, the installation of two new wet scrubbers on their furnace would cost $18 million, not the $9.4 million estimated by EPA. We asked each plant to provide an estimate of the cost impact the limits in the final rule will have on their plant. Overall, industry estimated a capital equipment and installation cost of $57 million. The costs provided by industry are based on a combination of costs estimated by plant engineers, previous equipment replacement costs, and vendor cost estimates.

The EPA asserts that the impact estimate of $57 million provided by the industry is a conservatively high estimate based on the fact that some plants did not account for the averaging of the emissions for those units within the ore crushing and handling and finished pellet handling affected sources. However, in order to ensure that we fully account for the cost impact to the industry, we used the conservatively high estimates provided by the industry. Therefore, the capital cost impact of the emission limits in the final rule was estimated to be approximately $57 million, including emission control capital costs and monitoring, recordkeeping, and reporting (MRR) capital costs. The annual costs of the final rule are estimated to be $9 million per year, including annualized capital and annual operational and MRR costs. For more information on the industry provided costs and the revised cost analysis, see the revised cost analysis memorandum in the docket.

Comment: Two commenters stated that the costs of the rule as proposed are disproportionate to the reduction in HAP.

Response: The revised estimate of annual compliance costs for the final rule is $9 million per year, and this expenditure is estimated to result in the reduction of 270 tpy of HAP and 10,538 tpy of PM. The corresponding cost per ton of HAP reduced is $33,333; the corresponding cost per ton of PM reduced is $854. These values are similar to or lower than those in other MACT standards. In addition, the emission limits in the final rule are based on the MACT floor level of control. The CAA does not give the EPA the discretion to consider costs for the MACT floor level of control.

Comment: One commenter stated that the costs and resources associated with the administrative requirements (*e.g.*, continuous monitoring, stack testing) of the final rule will pose a significant additional burden on their operations. The commenter cited estimated costs of $515,000 for the installation of additional instrumentation and monitoring equipment, an additional cost of $100,000 for dust collector monitoring maintenance, and an additional cost of $45,000 for stack testing. The commenter stated that their plant is already operating under a title V permit and already has a well-controlled dust control system in place. The commenter asserted that the increased continuous monitoring and increased stack testing is not necessary to protect human health or the environment and adds unnecessary costs.

Response: In the proposed rule, we included only those monitoring and testing requirements that were necessary to ensure the continued compliance with the PM emission limits. However, following a review of the public comments and follow-up discussions with the industry and States, we have written the final rule to reduce the monitoring and testing burden:

- To reduce the monitoring burden, we have deleted the requirements to conduct monthly transducer checks, quarterly gauge calibration checks, semiannual flow sensor calibration checks, daily pressure tap pluggage checks, and monthly electrical connection continuity checks.
- We have reduced the indurating furnace stack testing burden by removing the requirement to conduct simultaneous tests of all the stacks on one furnace. The final rule allows plants to conduct sequential testing of the stacks for a furnace, provided the tests are completed "within a reasonable period of time, such that the indurating furnace operating characteristics remain representative for the duration of the stack tests."
- We have removed the volumetric flow rate and process throughput rate criteria for grouping similar ore crushing and handling and pellet handling emission units. This will allow more of these emission units to be grouped together, and thus, will result in fewer initial compliance tests being required for them.
- For dry ESP, we have allowed plants to monitor daily average secondary voltage and daily average secondary current in lieu of using a COMS.

Comment: According to one commenter, it is confusing that in one section of the Economic Impact Assessment (EIA), the Agency concludes that the final rule alone is unlikely to lead to mine closure, but clearly states that it's possible that two or three firms may close or sell some or all of their operations. The only consistent statement in the EIA, according to the commenter, is that the proposed rule will add to existing financial stresses in the industry.

Response: The empirical literature on steel mill capacity and closure suggests that import and mini-mill competition are more important explanatory variables for capacity and closure decisions than are pollution abatement cost expenditures. The EPA's market and facility impact analysis did not explicitly model mine closure decisions because of limited mine-level data and because the costs of compliance are relatively small. The EPA's data indicate that the compliance costs alone are generally too low to result in facility closure. However, we recognized that several companies that owned taconite mines in 2000 were already under significant financial hardship; four firms experienced operating losses in 2000, and several were also operating under Chapter 11 protection. As a result, EPA collected financial data and considered several criteria to determine whether companies would be able to obtain financing for capital investments associated with compliance, or might have to close or sell individual mine operations. The EPA examined the following company financial data:

- Change in profits projected by the economic model;
- Altman Z-scores;
- Current ratios; and
- Recent environmental compliance expenditures.

Based on our review, EPA concluded that two or three companies may close or sell operations. A review of recent data from the U.S. Geological Survey (USGS) and company financial reports confirms this pattern. In 2001, financially-strapped steel companies sold assets. Cleveland-Cliffs raised its total ownership of Tilden mine to 85 percent by acquiring an additional 45 percent share from Algoma Steel Inc. Cleveland-Cliffs and Minnesota Power purchased LTV Steel Co. in late 2001. Cleveland-Cliffs then acquired all the mining and processing facilities, including 25 percent share of the

Empire mine. In the face of continuing financial pressures from mini-mills and imports, steel companies may close or sell taconite facilities if they cannot obtain financing for compliance. A USGS iron ore expert contacted by EPA, however, stated that 2002 financial and market conditions were somewhat better than 2001. This was confirmed by reviewing financial statements for these firms; while still experiencing difficult conditions, in 2002 conditions improved somewhat compared to 2001.

Comment: One commenter from National Steel stated that it will likely be forced to shut down because it will be unable to make the upgrades necessary to comply with the rule as proposed. National currently employs nearly 500 people. The rule as proposed is anticipated to put these people out of work for a reduction of less than 5 tons of HAP. In addition to the anticipated closure of National's operations, the EPA analysis concluded that another one or two taconite ore processing plants may also close.

Response: As noted in the previous response, EPA's analysis suggests that the costs of achieving compliance are not sufficient alone to result in taconite plants becoming unprofitable. However, EPA recognizes that there are long-standing trends in the industry, such as increased imports of iron and steel and increasing use of mini-mill technology, that have resulted in decreasing demand for U.S.-produced taconite pellets over time. Due to these trends, four companies owning taconite facilities were unprofitable in 2000, and three of them (including National Steel) were operating under the protection of Chapter 11 of the bankruptcy code. The EPA's analysis recognizes that firms that are unprofitable or in bankruptcy may have difficulty obtaining financing for the capital investments needed to comply. Such firms may choose to sell or shut down their taconite plants. The EPA does not feel that such a decision should be entirely attributed to the final rule. However, note that recent industry data seem to show that in 2002, prices and profits improved somewhat due in part to the decrease in taconite supply (due in part to LTV's closing of the Hoyt Lakes facility) and in part due to tariff protection of several steel products.

Comment: According to one commenter, the statement in the EIA that two or three mines may close implies that Minnesota would see an additional loss of approximately 900 direct employees and $20 million in local taxes. The loss of 900 jobs equates to $67.5 million in wages and benefits. These figures represent a realistic social impact and create a different scenario than the one represented by the EPA in the EIA. These economic impacts will be "devastating" to an area heavily dependent on the mining industry.

Response: Chapter 4 of the EIA contains a regional impact analysis carried out by EPA. The analysis is carried out using IMPLAN, a regional-level input-output model. The total direct impact on each region (a State in this analysis) is defined in the EIA as the change in local expenditures resulting from final rule implementation. The direct impact of the final rule is estimated based on the results of the market model, and includes expenditures for compliance (in this case, positive) and adjustments in outputs in response to price changes (in this case, negative or positive). Generally, the direct impact includes the net effect of reduction in local spending because of output declines and the increase in local spending to implement the controls. For the State of Minnesota, the EIA shows a net reduction in local spending of $2.7 million. This is due to a loss of government revenues since a portion of state revenues comes from taxes on the total production from taconite iron ore. With the value of changes in total output included, the total impact to Minnesota is a reduction of $3.9 million in local spending.

Minnesota is estimated to experience a reduction of 30 full-time employees as a result of the reduction in taconite production. Thus, EPA estimates do show a reduction in local spending and employment in Minnesota from final rule implementation, but not anywhere close to the amounts asserted by the commenter.

A separate financial assessment examined the financial condition of companies that own taconite facilities. Because of long-standing trends in the iron and steel industry (including increasing use of electric arc furnace mini-mill technology and increasing imports of iron and steel), several of the owner companies have experienced financial stress, and three are operating under Chapter 11 protection. For these reasons, EPA concluded that at least those three firms may have some difficulty obtaining the financing needed to make capital equipment investments at their plants, including investments associated with environmental compliance. The EPA stated that as many as two or three additional taconite facilities were in danger of closing or selling their taconite plants at the time of the analysis, due mainly to factors unrelated to the rule as proposed. However, the additional costs associated with the final rule will put additional stress on these already stressed companies. Recent USGS data indicate that in 2001, financially-strapped taconite firms did sell assets to Cleveland Cliffs. Since the original EIA, however, conditions have improved somewhat in the industry. The reduced output due to the closure of Hoyt Lakes, and the tariff, which has increased the effective price of imported iron and steel commodities, have resulted in increased prices and profits for iron and steel companies over the past year. Thus, the companies are somewhat less vulnerable than they were at the time of EPA's earlier analysis.

B. How Did We Revise the Performance Testing Requirements?

Comment: Two commenters stated that language should be included in the final rule either authorizing some discretion on behalf of State agencies or otherwise allowing testing completed between the promulgation date and the compliance date to be counted as initial compliance testing. The commenters stated that this will allow additional time to spread out the compliance testing requirements.

Response: At proposal, plants were given 2 years after the compliance date to conduct their initial compliance tests for ore crushing and handling and pellet handling units, and 180 days after the compliance date to conduct their initial compliance tests for indurating furnaces. However, since the time of proposal, EPA has determined that allowing more than 180 days for initial compliance is not consistent with the 40 CFR part 63 General Provisions. Therefore, we have written the initial compliance testing deadline for ore crushing and handling and pellet handling units at 180 days after the compliance date.

More than 180 days are needed to conduct compliance testing and to reduce the burden of the final rule on the industry. Therefore, the EPA has written the final rule to allow source tests conducted between the promulgation date and the compliance date to be used for compliance demonstration, as long as the tests are performed in accordance with the requirements of the final rule. Since the compliance period is 3 years, plants will have a total of 3½ years to conduct the initial compliance tests for all of their units.

Comment: Two commenters supported the part of the proposed standard that allows plants to conduct initial performance tests by testing a representative sample of units within a group of similar units. However, in a

redline/strike-out version of the proposed rule submitted by the commenters, they removed the specific criteria defining similar units in § 63.9620(f) and the criteria indicating the number of units that must be tested per similar group in § 63.9620(g). In the place of these specific criteria, the commenters inserted a statement that refers to criteria established by the State agency or in the title V permit.

Response: In follow-up discussions with the commenters, EPA asked the commenters to clarify their specific concerns regarding the criteria for the testing of representative units. The commenters indicated that their primary concern was with the criteria in paragraphs (3) and (4) of § 63.9620(f), which require the volumetric flow rates of the emission units to be within plus or minus 10 percent of the representative emission unit, and the actual process throughput rate to be within plus or minus 10 percent of the representative emission unit. The commenters stated that these criteria were so restrictive that they would not be able to group very many units.

The EPA also conducted follow-up discussions with the Minnesota Pollution Control Agency (MPCA) regarding the criteria they use for grouping similar units. The MPCA staff indicated that the primary reason they group emission units is to reduce the number of permitted emission units, although the same groupings are used for testing purposes. The grouping of emission units by MPCA was conducted primarily on the basis of control type, installation date, and, to a certain degree, process type. However, in some cases they do group emission units from different processes. They do not group emission units on the basis of flow rate or process throughput.

Based on these discussions with the commenter and MPCA, EPA has determined that the criteria in § 63.9620(f)(3) and (4) are too restrictive and, therefore, do not achieve EPA's true intent—the reduction of the initial compliance test burden for ore crushing and handling and pellet handling emission units. As a result, EPA has not included the criteria in § 63.9620(f)(3) and (4) as proposed. The criteria in § 63.9620(f)(1) and (2) as proposed have been retained in the final rule. In addition, we have included the following new criteria: The representative unit must have parametric monitoring values that encompass the characteristics of all the emission units within the group.

Comment: Three commenters stated that the simultaneous testing of multiple indurating furnace stacks is costly. Two of the commenters stated that simultaneous testing is also impractical and possibly not even feasible.

Response: In follow-up discussions with the commenters, they stressed that some furnaces have as many as five stacks. In order to test these stacks simultaneously, they would need to have five source testing teams on site at the same time. The commenters stated that this would be very expensive. The commenters stated that for their current title V permits, they are not required to conduct simultaneous tests of all stacks for a furnace. In our discussions with MPCA, they confirmed that, although they require all plants with permits to test all furnace stacks, they do not require that the plants test all the stacks on a furnace simultaneously. Also, in these discussions, it was noted that the operating conditions are consistent enough that emissions should not vary significantly over a short period of time. Based on these discussions, EPA agrees that the simultaneous testing of indurating furnace stacks would be costly and would provide no additional compliance assurance. Therefore, in order to reduce the source testing burden of the final rule on the industry and to maintain consistency with current testing requirements, EPA has not included the requirement for simultaneous testing in the final rule.

Comment: Two commenters stated that any requirements for sample volume or sample time should be removed from the initial and continuous compliance testing requirements. The commenters stated that the final rule should not include provisions that are different from already established EPA test methods.

Response: In the proposed rule, we specified a minimum sample volume of 60 dscf for EPA Method 5 (40 CFR part 60, Appendix A) tests to ensure that enough PM is collected to provide accurate results. The EPA Method 5 does not contain specifications for sample volume or sample time (*i.e.*, sampling duration). Therefore, it is not uncommon for the EPA to specify a minimum sample volume or sample time corresponding to emission characteristics of an industry for EPA Method 5 tests. For example, the Integrated Iron and Steel NESHAP specifies a minimum sample volume (60 dscf) for EPA Method 5 tests.

Based on historical Method 5 tests from taconite plants, most 1-hour tests sampled about 30 to 50 dscf and obtained a dry catch of 2 to 20 milligrams (mg). The EPA's Emissions Measurement and Assessment Division recommends a dry particulate catch of approximately 20 mg for an accurate Method 5 test. At the same historical particulate concentrations, a sample volume of 60 dscf or a test of 2 hours in duration will obtain a dry catch of approximately 20 to 30 mg. In the proposed rule, we specified a minimum sample volume of at least 60 dscf for each run of a Method 5 test to ensure that an adequate amount of dry catch is obtained. However, since proposal we have determined that specifying a 2-hour sampling time will provide a greater assurance that an adequate catch is obtained. For example, with a sample volume of 60 dscf, a 20-mg dry catch is obtained for units with emissions of 0.005 gr/dscf or greater. By comparison, given the typical sampling rates of 0.75 to 1 dscf per minute from the historical tests, specifying a 2-hour test provides a 20-mg dry catch for units with emissions as low as 0.003 gr/dscf. In addition, specifying the sampling time is consistent with other recently published rules, such as the Portland Cement NESHAP. Therefore, we have modified the testing requirements in the final rule by removing the requirement for a sample volume of 60 dscf and adding the requirement that the duration of each test run be at least 2 hours.

C. How Did We Revise the Emission Limitations?

Comment: Two commenters stated that the emission limits should be set at two significant figures and not three significant figures. The commenters asserted that using three significant figures implies more precision than exists in reality and establishes limits that are unrealistically stringent and that do not allow for natural variations.

Response: In the proposed rule, we numerically expressed the emission limits for all affected sources, new and existing, to three digits (*e.g.*, 0.011 gr/dscf, 0.025 gr/dscf, and 0.008 gr/dscf). Thus, the proposed emission limits were already expressed as one or two significant figures. However, the intent of the commenters is for the EPA to consider rounding the proposed emission limits to two digits to account for normal variability in the taconite iron ore processing operations, performance of air pollution control equipment, and source testing procedures.

We have reevaluated how natural variations were accounted for in the proposed emission limits for existing sources. The PM emission limits for existing sources in the ore crushing and handling affected source and the finished pellet handling affected source remain at 0.008 gr/dscf. In the final rule, you have the option to determine an

overall, flow-weighted average PM concentration for all emission units within each of these two affected sources. One purpose for the flow-weighted average PM concentration procedure is to account for natural variability in the various types of emission units within each affected source, the processing operations, the performance of air pollution control equipment, and source testing procedures.

The PM emission limits for existing sources in the indurating furnace affected source will be rounded to two digits. For both existing straight grate and grate kiln indurating furnaces processing magnetite, the PM emission limit is 0.01 gr/dscf. For existing grate kiln indurating furnaces processing hematite, the PM emission limit is 0.03 gr/dscf. After we considered the amount of PM source test data available in establishing the MACT floor, observed variability in measured PM concentrations from the furnace exhaust stacks, and noted fluctuations in the taconite iron ore process, we determined that it is appropriate to round the PM emission limits for existing indurating furnaces to two decimal places in order to fully account for natural variability. Even after rounding the PM emission limits for existing indurating furnaces, we will still achieve nearly the same level of emission reduction, while offering increased flexibility to the industry to comply with the emission standards of the final rule.

The PM emission limit for existing ore dryers was determined to be the level of control indicated by the existing State limit of 0.052 gr/dscf. Therefore, it is not appropriate to round the PM emission limit for existing ore dryers. The PM emission limit for existing ore dryers is 0.052 gr/dscf in the final rule.

The PM emission limits for all new affected sources represent an actual performance level achieved by the best performing source in each affected source. Thus, the new source emission limits can be achieved through the proper design and construction/reconstruction of a new affected source.

Comment: Three commenters stated that the final rule should more clearly describe how to calculate the flow-weighted mean PM emissions concentration for the material handling operations.

Response: We agree with the commenters and have written §§ 63.9621 and 63.9622 to provide additional clarification for calculating the flow-weighted mean PM emissions concentration for ore crushing and handling and finished pellet handling. Specifically, the final rule clarifies that when calculating the flow-weighted mean PM emissions for ore crushing and handling and finished pellet handling, the "average" PM concentration corresponding to each emission unit in an affected source is multiplied by the maximum design volumetric flow rate of the corresponding emission unit. The "average" PM concentration from an emission unit is derived as the arithmetic mean of a PM source test comprised of three valid sampling runs on the emission unit. If the affected source elects to conduct representative compliance testing for a group of similar emission units, the PM concentration determined for the tested emission unit will be assigned to the other emission units identified as similar within the group.

D. How Did We Revise the Continuous Compliance Requirements?

Operating Limits

Comment: Two commenters objected to using operating limits established during the performance test to determine continuous compliance. The commenters stated that a performance test is only a snapshot of an operation at a point in time and may not encompass the full operational variability that occurs. The commenters stated that this approach effectively sets a new more stringent NESHAP emission limit at the emissions level actually emitted during the performance test. Therefore, the commenters stated that any operation outside of the operating parameter range should not be classified as a deviation. The commenters stated that the D.C. Circuit Court has made it clear that MACT standards are to represent the best performing source on its worst day (see *National Lime* v. *EPA*, 233 F.3d 625, 51 ERC 1737 (D.C. Cir. 2000), and *Cement Kiln Recycling Coalition* v. *EPA*, 255 F.3d 855, 52 ERC 1865 (D.C. Cir 2001)). The commenters asserted that as long as a source is operating properly, follows procedures in the malfunction plan, and proceeds appropriately to corrective action, then variations within the range of proper operation should not constitute deviations. The commenters stated that the EPA may require plants to log such information and even report it, but not necessarily as a deviation under title V.

Response: In follow-up discussions with the industry, we were able to determine that the taconite industry's primary concern regarding the operating limits was being able to maintain the equipment so that they did not exceed the established operating limit. Specifically, their concerns included their ability to maintain the pressure drop above the operating limit for venturi-rod deck units with a fixed throat and/or a volumetric flow dependent of process conditions; and, their ability to operate and obtain meaningful readings of opacity from dry ESP using a COMS in conditions of high moisture and low opacity.

Regarding the measurement of the pressure drop, we have increased the averaging time from hourly to daily. The daily averaging period addresses industry's concerns about their ability to control pressure drop during short periods of time when the scrubber may experience a pressure drop lower than the operating limit. In addition, for dynamic wet scrubbers, we have provided the flexibility of monitoring either the daily average pressure drop or the daily average fan amperage, in addition to the daily average scrubber water flow rate. This addresses industry's concern that for dynamic wet scrubbers, both pressure drop and fan amperage are good indicators of proper performance.

Regarding the measurement of opacity using COMS, we have verified with equipment vendors that COMS are available that will provide accurate readings under the moisture and low opacity conditions present at taconite facilities. However, we understand that currently there are no COMS in operation at taconite plants and that due to costs or site-specific operating conditions a COMS may not be the best option. Therefore, in the final rule have provided plants the flexibility to establish their operating limit either as the 6-minute average opacity or as the daily average secondary voltage and the daily average secondary current for each field.

In addition, we have included language in the final rule to clarify when not meeting an operating limit becomes an exceedance. Specifically, after the first two times that you do not meet the operating limit, you must take corrective action. After the third time that you do not meet the operating limit, you must submit a written report within 5 calendar days and report the third unsuccessful attempt of corrective action as a deviation and continue corrective action.

Bag Leak Detection Systems

Comment: Two commenters stated that the requirement in § 63.9634(d)(1) of the proposed rule that requires that the bag leak detection system not alarm for more than 5 percent of the time should be deleted from the final rule.

Two commenters pointed out that § 63.7833(d)(1)(iii) of the proposed rule specifies that 1 hour of alarm be logged even if procedures are implemented to determine the cause of the alarm and corrective action is taken in less than 1 hour. The commenters contended that the requirement artificially and unfairly inflates the semiannual percentage of alarm time and does not provide an incentive for sources to initiate procedures as quickly as may be possible. The commenters suggested that the final rule should require the plant to "count the actual amount of time it took to initiate procedures to determine the cause of the alarm."

Three commenters stated that in the requirement in § 63.9634(d)(1)(v) that the bag leak detection system not alarm for more than 5 percent of the "total operating time," it is unclear if the "total operating time" refers to the operating time of the affected source or the time the baghouse is actually evacuating emissions generated by the affected source. The commenters pointed out that some baghouses, by design, evacuate emissions for only a few minutes each hour. The commenters recommended that EPA clarify its intent that the "total operating time" refers to the total operating time of the affected source.

Response: We agree with the commenters and have not included the 5 percent operating limit requirement for baghouse leak detectors in § 63.9634(d)(1) of the final rule. As a result, the requirements to log alarm time and to determine the ratio of the sum of the alarm times to the total operating time have also not been included. However, it is important that corrective action be initiated promptly, so we are retaining the requirement in § 63.9600(b)(2) that you "initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon as practicable."

Wet Scrubber CPMS

Comment: Three commenters stated that the labor hours required for the monthly transducer checks and the quarterly gauge calibration checks for the pressure drop sensor (§ 63.9632(b)(1)(iv)), and the semiannual flow sensor calibration checks (§ 63.9632(b)(2)(iii)) are excessive compared to the potential emissions control improvement. Two of the commenters suggested that rather than mandatory monthly, quarterly, or semiannual calibration checks, any control unit which emits less than 5 percent of the total annual PM emissions at the plant should be allowed to reduce the periodic checks required by each of the cited provisions to once annually. The other commenter suggested that the EPA should allow each source to propose an alternative method to the proposed calibration checks to the appropriate permitting agency.

Three commenters stated that the daily pressure tap pluggage check (§ 63.9632(b)(1)(iii)) and monthly electrical connection continuity checks (§ 63.9632(b)(1)(vi)) are overly burdensome and costly to implement. The commenters argued that the manual labor and clock hours required for such continuity checks would be so large that the monitoring systems would have to be shut down so frequently and for such a length of time that they would have virtually no operating time. According to the commenters, these provisions should be modified so as to provide "a program within the CPMS to alarm the process unit operator and to record the alarm for a zero value indication and for a static value indication that satisfies the requirement of this provision." In addition, one commenter stated that, if no change is made, the labor costs for the continuity checks must be factored into the economic analysis.

Response: The specific installation, operation, and maintenance requirements for wet scrubber CPMS have not been included in the final rule. Therefore, the requirements for monthly transducer checks, quarterly gauge calibration checks, semiannual flow sensor calibration checks, daily pressure tap pluggage checks, and monthly electrical connector continuity checks have not been included in the final rule. In place of the specific requirements, we have included the requirement that, for each CPMS, you must develop and make available a site-specific monitoring plan that addresses the following:

- Installation of CPMS sampling probe so that measurement is representative of control of the exhaust emissions.
- Performance and equipment specifications for the sample interface, the parametric signal analyzer, and the data collection and reduction system.
- Performance evaluation procedures and acceptance criteria (*e.g.*, calibrations).
- Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1), (3), (4)(ii), (7), and (8).
- Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d).
- Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c), (e)(1), and (e)(2)(i).

Comment: Three commenters stated that it is inappropriate to set a single (pressure drop) point for operating wet scrubbers and recommended that EPA remove the pressure drop requirement and rely on the operation and maintenance plan for compliance. The commenters pointed out that venturi-rod deck scrubbers operate over a range of pressure drop that is affected by scrubbing water flow rate, scrubber water flow distribution, water temperature, gas temperature, and the square of the process gas flow rate. The commenters stated that operators cannot directly control the pressure drop in a venturi-rod deck scrubber. By setting the average pressure drop at the minimum level established during the performance test, the commenters stated that the rule effectively forces a source to operate well below the emission limit.

Response: In follow-up discussions with the commenters, it was clarified that their comments referred only to venturi-rod deck scrubbers installed on indurating furnaces. These venturi-rod deck scrubbers are fixed-throat scrubbers for which the pressure drop can be measured, but not directly controlled. Two commenters stated that they cannot directly control the pressure drop across the venturi-rod deck scrubbers because of the following factors:

- The scrubbers are of a fixed-throat design;
- The fan drawing or pushing air through the scrubber operates at a fixed speed and fixed diameter; and
- The damper prior to the scrubber is used to control the overall flow of air through the system; therefore, it cannot be used to control the pressure drop to the scrubber without affecting the entire process. The damper is opened more or closed more, as necessary, to modulate the air flow as changes occur in the process. As production rate increases, the damper is opened more and, therefore, the pressure drop across the scrubber increases. Due to these factors, the pressure drop across the venturi-rod deck scrubbers on the furnaces is more variable than other controls and is difficult to regulate.

The commenters presented data showing the variability of the pressure drop for their venturi-rod deck scrubbers. One commenter presented pressure drop readings taken every 20 minutes that ranged from 12 to 4 inches of pressure drop, with very few points below 4 inches of pressure drop.

However, after excluding periods of malfunction and looking at the daily average pressure drop instead of instantaneous readings, the data showed that the daily average pressure drop for each scrubber fell within a narrow range. The difference between the lowest daily average pressure drop and the highest daily average pressure drop was only about 2 or 3 inches of pressure drop. Based on these data, the commenter stated that they were confident that they could maintain a pressure drop at or above the operating limit based on a daily average.

The other commenter provided daily average pressure drop for their venturi-rod deck scrubbers. The data showed that on a daily average basis, the pressure drop for each venturi-rod deck scrubber varied by 1 to 3.6 inches over a period of 2 months. The commenter requested that they be allowed to use historical pressure drop data to establish the pressure drop operating limit for venturi-rod deck scrubbers on indurating furnaces. In addition, the commenter requested that compliance with the pressure drop operating limit for venturi-rod deck scrubbers on indurating furnaces be determined on a daily average basis.

To address the technical issues raised by the commenters, we have written the final rule to allow the use of pressure drop data from PM tests conducted on or after December 18, 2002 (the proposal date) to establish the operating limit for venturi-rod deck scrubbers controlling emissions from indurating furnaces. The historical pressure drop data must be from a certified test for which the PM emission concentration was at or below the applicable indurating furnace limit in Table 1 to the final rule. In addition, the basis for compliance with the pressure drop operating limit for venturi-rod deck scrubbers on indurating furnaces has been written as an hourly average not a daily average.

COMS

Comment: Two commenters stated that there should not be any requirement to install or operate a COMS. The commenters do not support setting an opacity limit on a case-by-case and site-by-site basis. In addition, the commenters asserted that the opacity will be low enough to be outside of the range of error for the test method (the COMS), and sources could create a reportable deviation without truly exceeding the actual opacity limit. Instead, the commenters stated that there should be a requirement for a visible emission check, as is required in the Portland Cement NESHAP.

Response: We have verified with equipment vendors that COMS are available that will provide accurate readings at low opacity conditions. Certain models of COMS can measure opacity as low as 0.1 percent with an accuracy of ± 0.3 percent. In addition, the COMS vendors indicated that the COMS will provide accurate readings under the moisture conditions present at taconite facilities (typically 9 percent moisture). However, we understand that currently there are no COMS in operation at taconite plants (one facility has scheduled a trial installation for later this year) and that due to equipment and installation costs or site-specific operating conditions, a COMS may not be the best option for each plant. Therefore, in the final rule we have provided two options for the operating limits for dry ESP: the 6-minute average opacity, as monitored using a COMS; or the daily average secondary voltage and the daily average secondary current for each field, as monitored using a CPMS.

During our dry ESP discussions with industry, it was requested that we add specific monitoring requirements for wet ESP. After discussion with the industry and State agencies, we established the following monitoring parameters for wet ESP:

- Daily average secondary voltage for each field;
- Daily average stack outlet temperature; and
- Daily average water flow rate.

Therefore, the final rule contains requirements to establish operating limits for these parameters during the initial performance test. Plants must also monitor these parameters such that they are maintained at or above the operating limits (for secondary voltage and water flow rate), or below the operating limits (for stack outlet temperature).

E. How Did We Revise the Baseline Emissions?

Comment: Two commenters stated that the HAP emission values in the preamble need to be updated to accurately reflect what is currently being emitted. Specifically, one of the commenters stated that U.S. Steel has more recent testing data that can be used to update the estimates. Another one of the commenters asserted that HAP emissions from taconite ore plants are inaccurately characterized. The commenter stated that several companies have more recent test data and EPA can revise the HAP emissions accordingly. The commenter stated that a more accurate depiction of the emissions will alter the economic analysis.

Response: In follow-up discussions with the industry, we asked them to submit any test data that were not reflected in the proposal analyses. We received the following additional emission tests:

- Engineering Emissions Test Report for Tilden conducted the week of November 4, 1999. Tested PM, nitrogen oxides (NO_X), HCl, HF, benzene, hexane, toluene, formaldehyde, metals, and asbestos.
- Particulate and Metals Emission Study for Tilden conducted May 7 to 11, 2002. Tested total PM and metals.
- MPCA spreadsheet incorporating Minntac emissions tests for December 2002 and August 2001. Tested formaldehyde, HCl, HF, chlorine, and fluorine.
- Northshore formaldehyde emissions tests conducted on March 6, 2003. We have reviewed the test data listed above and have revised the baseline HAP emissions as appropriate. The baseline HAP emissions have been modified as follows:
- Baseline formaldehyde emissions were updated for Minntac, Northshore, and Tilden. The baseline formaldehyde emissions for EVTAC and Inland were also updated, since their formaldehyde emission factors were based on Northshore estimates. This resulted in a decrease in baseline formaldehyde emissions from 180.7 to 30.1 tpy. This had no effect on the HAP emission reduction estimate since we assumed that there would be no formaldehyde emission reductions.
- Baseline HCl and HF emissions were updated for Minntac and Tilden. This resulted in a decrease in baseline HCl emissions from 349.1 to 274 tpy and a decrease in baseline HF emissions from 308 to 229 tpy. As a result, the emission reduction from acid gases decreased from 356.1 to 256 tpy.

F. How Did We Select the Pollutants?

Mercury

Comment: Seventeen commenters stated that EPA has a statutory obligation to set emission standards for mercury. Several commenters specifically cited *National Lime*. One commenter stated that the fact that no specific type of control technology has yet proven effective and affordable for taconite processing cannot legally excuse the industry from regulation. Thirteen commenters asserted that EPA's practice of not setting standards for industries that do not yet control their emissions is illegal and encourages the industry to do as little as possible to control mercury.

One commenter encouraged EPA to consult with the Minnesota Department of Natural Resources, Division of Lands and Minerals, to get the most up-to-date information on potential mercury control strategies for taconite facilities before promulgation. The commenter stated that viable mercury control technologies or strategies may be identified in the very near future. The commenter asserted that the best strategies to control mercury may be operational modifications such as different handling practices for captured dust from indurating furnaces.

Two commenters stated that the EPA must set an emission standard for mercury based on the statute's "minimum stringency requirement" (*i.e.*, the MACT floor) even if specific technologies or operating practices to achieve it have not been identified. One commenter stated that if no such controls or practices are being used, EPA must find some other factor on which to base the standard. Three commenters suggested that EPA determine the floor based on the average mercury emission level of the five plants (or furnaces) with the lowest emissions, and then set the mercury emission limit there. One commenter stated that if certain plants will not be able to meet such a standard within 4 years, the statute provides relief through a Presidential exemption for a period of not more than 2 years. The commenter also contends that the CAA allows relief for a company that makes a significant effort to identify and implement effective controls but is still unable to meet the standard by the 4-year deadline. The commenter stated that EPA included a similar provision in the Portland Cement NESHAP. The commenter believes that setting a standard would induce the industry to invest in research and development to meet it. The commenter stated that promising mercury control technologies for the taconite industry are on the horizon. The commenter stated that the EPA should investigate the COHPAC-TOXECON system, corona discharge, and catalytic oxidation, as well as an iron oxide sorbent system being tested in Minnesota.

One commenter stated that EPA recognized in the proposed rule that the mercury content of the taconite ore is the "key factor" affecting mercury emissions. The commenter reasoned that by setting a mercury standard, plants that use ore with high mercury content will have to find ways to reduce mercury emissions, including switching to cleaner raw materials or installing pollution controls.

One commenter stated that the final rule should consider precluding the use of coal, even as a secondary fuel, to control mercury emissions.

Thirteen commenters recommended that EPA establish a reasonable limit for mercury and allow relief for a company that is unable to meet the limit after making appropriate technological or research investments.

Two commenters requested more information supporting EPA's finding that "we were unable to find any viable control technologies or operating procedures for achieving reduction in mercury emissions from indurating furnaces at taconite iron ore plants." One of the commenters requested the cost of control per ton of mercury control that was estimated in EPA's analysis. Both commenters stated that control technologies being developed for coal-fired power plants could be used to control mercury emissions from taconite facilities. Two commenters mentioned activated carbon injection as a potential mercury control for taconite plants.

One commenter stated that, both within the binational program and in national policy documents, the EPA insinuates that the NESHAP program is the means by which the Agency will achieve mercury reduction goals. The commenter asserted that an emission limit for mercury should be set that pushes the industry to research and develop control technology but also allows for relief if a company is unable to meet the standard after diligently pursuing such technology. The standard should also include mercury monitoring requirements.

Three commenters stated that if mercury emissions from the taconite industry are not reduced, the goals of the binational program to protect the Lake Superior Basin cannot be met. One commenter stated that, if EPA does not intend to set standards for mercury emissions from industries that currently do nothing to control their emissions and that do not develop control technology on a voluntary basis, its regulations (if not its authority) are inadequate to protect the Great Lakes and other Great Waters from mercury deposition. The commenter stated that EPA's refusal to take action under CAA section 112(m) because authority is available under CAA section 112(d), and then failing to use the CAA section 112(d) authority is unacceptable. Furthermore, the commenter stated that Congress directed the EPA to take action to protect the Great Waters by 1995. The commenter stated that postponing regulations until residual risk standards are required violates the spirit (if not the letter) of the congressional mandate.

One commenter stated that beyond-the-floor standards are warranted for mercury. The commenter stated that a mercury standard based on developing technologies is "achievable." The commenter stated that EPA could base beyond-the-floor mercury standards on the reductions that could be achieved through raw material change (low-mercury ore), fuel change (natural gas), or control technologies (wet scrubbers, carbon beds, or activated carbon injection). The commenter recommended that EPA investigate the COHPAC–TOXECON system, whereby a pulse-jet baghouse is installed downstream from existing ESP controls, and a sorbent injection system is installed between the existing ESP and the baghouse. The commenter also suggested that EPA look at developing multipollutant technologies, such as corona discharge, catalytic oxidation, and iron oxide sorbent systems being tested in Minnesota.

One commenter cited estimated costs for activated carbon systems that were developed for coal-fired boilers that ranged from $4,940 to $70,000 per pound ($9.9 to $140 million/ton) of mercury removed at 90 percent control (USDOE, September 2002; NESCAUM, June 2000). The commenter also provided costs for carbon filter beds used in European waste incinerators of $513 to $1,083 per pound ($1.0 to $2.2 million/ton) of mercury removed at 99 percent control. The commenter stated that the control costs for indurating furnaces should lie somewhere between the two cost ranges. The commenter also provided estimated costs for enhanced wet scrubbing systems for coal-fired boilers of $76,000 to $174,000 per pound ($152 to $348 million/ton) of mercury removed (NESCAUM, June 2000).

Response: There is no way to set a floor standard for mercury that is "achievable," as required by CAA section 112(d)(2), because there is no standard that can be duplicated by different sources or replicable by the same source. The opinion in *National Lime* did not deal with a situation where an emission standard was unachievable for these reasons. Mercury emitted from taconite iron ore processing plants originates primarily from the ore itself and to a much lesser extent the fuels powering the process. None of the taconite iron ore processing plants control mercury emissions by using at-the-stack controls. Thus, any differences in mercury emissions from existing indurating furnaces reflect different mercury levels in raw materials or fossil

fuels used at the individual plants. Attempting to base a mercury standard (either a floor standard, or a beyond-the-floor standard) on raw material substitution (*i.e.*, ore substitution), however, would lead to unachievable standards for all sources, because this means of control is not duplicable or even replicable.

A study by the Coleraine Minerals Research Laboratory in 1997 stated that "the mercury volatilized during pellet induration is not the same for every taconite operation. There is a correlation between the amount of mercury volatilized during induration and the location of the taconite operation. The taconite operations that are located on the west end of the Mesabi Iron Range volatilize more mercury during pellet induration than those on the east end of the range." This correlation was confirmed in a report by the Minnesota Department of Natural Resources (Berndt, 2002) with the mercury concentrations present in the ore varying from 21 parts per billion (ppb) at the west end of the range to 0.6 ppb for facilities located on the east end of the range. Each taconite iron ore processing plant is located directly proximate to its own mining source. Transportation costs of procuring raw materials from other locations are prohibitive. A plant has no access to the raw ore used by another plant and, consequently, could not duplicate the mercury emissions performance of the other plant. The ore processing operations at a given plant are dependent on the type of ore mined. The east range ores are typically finer and harder requiring different processing steps in crushing, grinding, and flotation. Because of the differences in processing for each type of ore, it is not feasible for any one facility to process different ores mined from multiple locations in the range. Moreover, because iron ore deposits are variable in mercury content, there is no way to assure that even a source processing its own ore could replicate its own performance, since the next ore batch could contain higher concentrations of mercury. Based on the above justifications, we have determined that it is infeasible for taconite plants to reduce mercury emissions by switching to "cleaner" ores.

Natural gas is the primary fuel used by the taconite industry to fuel the process. From the period of 1995 to 1997, the burning of coal constituted only between 9 and 18 percent of the overall energy input for taconite indurating furnaces. During the same period, natural gas constituted between 73 and 83 percent of the overall energy input for taconite indurating furnaces. Although very little coal is used overall by the industry, it is critical for certain plants to have coal available to them as a backup fuel when natural gas may not be available or when seasonal fluctuations in the price of natural gas make its use uneconomical. Therefore, based on the negligible impact of coal on mercury emissions in the industry and the importance of maintaining backup fuel options, fuel switching is not a feasible means of controlling HAP metal emissions (including mercury) for the taconite industry.

Based on these facts, EPA cannot accept the comment that it must establish a floor standard by averaging the lowest mercury emission values of the so-called best-performing 12 percent of sources. In the next performance test, all of these mercury values could be higher (no matter what method would be used to establish "best performing"), because there are no means of controlling ore concentrations or feasibly using fuel substitution. Such a standard simply could not be achieved by any source. Not only is this not the intent of a technology-based standard, but would result in sources being out-of-compliance and, thus, possibly shutting them down. This is not how MACT was intended to function. "MACT is not intended * * * to drive sources to the brink of shutdown * * *" (H.R. Rep. No. 101–490, 101st Cong. 2d sess. 328).

We note further that the mercury in the ore and the fuel is present in trace amounts. The Minnesota Department of Natural Resources stated that "mercury present in taconite occurs as a trace element, and cannot be eliminated by simply using a different fuel source or by eliminating mercury-bearing components from material to be combusted." (Berndt, 2002) This supports the Agency's technical determinations that control via substitutions of feed or fuel is neither feasible nor likely to be effective since random variability in the feed will likely result in equal amounts of mercury being emitted in any case. Indeed, as stated above, it is not clear that even a single source could reliably duplicate its own performance for mercury emissions due to the small amounts emitted and random variabilities in the mercury content of the iron ore.

The commenters themselves acknowledge that viable controls for mercury are not currently available for the taconite industry:

- One commenter stated that "viable mercury control technologies or strategies may be identified in the very near future."
- One commenter stated that "setting a standard would induce the industry to invest in research and development to meet it." The commenter also stated that "promising mercury control technologies for the taconite industry are on the horizon."
- Two commenters stated that "control technologies being developed for coal-fired plants could be used to control mercury emissions from taconite facilities." Section 112(d) of the CAA requires that the EPA establish emission standards that are "achievable for new or existing sources." Since we have not been able to identify any currently employed operating practices that effectively reduce mercury emissions which are duplicable or replicable, we cannot develop an achievable floor standard.

Some commenters also suggested extended compliance periods (beyond the 3 years provided by section 112(i)(3) of the CAA). The problem, however, is not one of time but of the lack of existence of any means of floor control. Control of emissions via raw material or fuel substitution will not be available regardless of time allowed for compliance.

Several commenters also noted that EPA's action here could undermine efforts to control mercury deposition in the Great Lakes and questioned the adequacy of EPA's action in light of the Agency's obligation under section 112(m)(6) of the CAA to "determine whether the other provisions of this section 112 are adequate to prevent serious adverse effect to public health and serious or widespread environmental effects" in the Great Lakes. The EPA, however, is not reopening its existing determination that the section 112(d) and (f) standards are adequate for this purpose. See generally 63 FR 14090 (March 24, 1998); "Deposition of Air Pollutants to the Great Waters: First Report to Congress (EPA–453/R–93–055, 1994); "Deposition of Air Pollutants to the Great Waters: Second Report to Congress" (EPA–453/R–97–011, 1997). The EPA notes further that the section 112(f) residual risk process must evaluate (among other things) whether a more stringent standard for mercury is needed to prevent an adverse environmental effect (taking into consideration costs, energy, safety and other relevant factors).

The commenters' statements regarding potential at-the-stack control options are legitimate considerations for beyond-the-floor standards, but after evaluating the possibility of such

controls against technical considerations and the section 112(d)(2) factors, we do not feel that a beyond-the-floor standard for mercury is warranted.

One commenter indicated that different handling practices for captured dust from indurating furnaces, as discussed in a report by the Minnesota Department of Natural Resources (Berndt, 2002), would be a good method for controlling mercury. The control option investigated in the report involves placing magnetite dust collected by the wet scrubbers, which was found to be high in mercury, into the waste stream rather than recycling the dust back to the indurating furnace. A review of the report cited by the commenter reveals that, for the two taconite plants studied, the costs of this approach ranged from $28 to $254 million per ton of mercury removed ($14,000 to $127,000 per pound of mercury removed). This high cost results from the loss of over $1 million of magnetite dust product ($25 per long ton) to prevent approximately 30 pounds of mercury emissions. The study concludes that "due to the high cost of this emission control method, the large uncertainty in the cost estimates, and the limited amount of emission reduction, it appears that more research is needed before mercury emission control methods can be put into practice in taconite processing facilities." We believe that the high cost, the small reduction in HAP emissions, and increased waste disposal do not justify this beyond-the-floor alternative at this time.

Other potential mercury controls cited by the commenters include: wet flue gas desulfurization (FGD), baghouses, activated carbon injection, activated carbon/baghouse system (COHPAC), corona discharge, electro-catalytic oxidation, and injection of copper-coated magnetic taconite concentrate.

Ninety seven percent of the mercury emitted from taconite plants is emitted from the indurating furnaces. The mercury emitted from the taconite indurating furnaces is primarily elemental mercury. Wet scrubbing systems, such as wet FGD, "are very effective at removing soluble ionic mercury, but are not very effective at removing insoluble elemental mercury" (NESCAUM, 2000). Therefore, wet FGD systems were not considered to be a technically viable beyond-the-floor option.

Baghouses and control systems that utilize them, such as the COHPAC system, cannot be used on taconite indurating furnace stacks due to the high moisture content of the exhaust gas. The high moisture content of the exhaust gas causes plugging problems that make the baghouses ineffective. Therefore, baghouses and control systems based on baghouse technology were not considered to be a technically viable beyond-the-floor option.

In pilot scale studies at several electricity generating boilers, carbon injection has provided up to a 90 percent reduction in mercury emissions. Estimated costs for installing activated carbon injection systems on electricity generating boilers range from $10 to $140 million per ton of mercury removed ($5,000 to $70,000 per pound of mercury removed) (NESCAUM, 2000; USDOE, 2002). Activated carbon injection has been demonstrated to provide 95 percent control of mercury emissions for municipal waste combustors (NESCAUM, 2000). Costs for installing activated carbon injection for municipal waste combustors range from $0.4 to $1.74 million per ton of mercury reduced ($211 to $870 per pound of mercury reduced). However, NESCAUM points out that "this working experience with small sources is not directly transferable to large coal-fired boilers because of their different flue gas characteristics" (NESCAUM, 2000). The cost per pound of mercury removed for this industry with activated carbon injection would be considerably higher than the estimated cost for a utility boiler because the capital and fixed operating costs would be similar while these plants have very low mercury emissions. The high cost, small reduction in HAP emissions, increased energy usage, and additional waste generation do not justify this beyond-the-floor alternative at this time.

The corona discharge, electro-catalytic oxidation, and copper-coated magnetic taconite concentrate injection control technologies are describe by the commenter as "emerging technologies * * * that could potentially be applied to the taconite sector as they mature and become more cost-effective." Based on the commenter's own description, these technologies are not currently ready for application to the taconite industry. Therefore, these technologies were not considered in the beyond-the-floor analysis.

In evaluating these potential beyond-the-floor options, we were unable to identify any viable control technologies or operating practices for achieving reductions in mercury emissions from taconite iron ore plants. Consequently, we chose the floor level of no emissions reduction as MACT.

Since specific controls for mercury are not currently present in the industry and operating practices that effectively reduce mercury emissions have not been identified, we are selecting no emissions reduction as new source MACT.

Asbestos

Comment: Seventeen commenters stated that EPA should set a limit for asbestos emissions from taconite plants as is required by the CAA. One commenter stated that asbestos is designated as a HAP by the CAA. The commenter reasoned that if asbestos is emitted by the taconite industry, the statute requires that EPA set a standard for asbestos fibers. Based on the decision in *Reserve Mining Co.* v. *EPA*, 514 f.2d 492, 526 (1975), the commenter contends that the EPA must consider asbestos to be a HAP emitted by the taconite industry. One commenter contended that "lack of information" about asbestos emissions is an invalid reason for not setting standards.

Two commenters asserted that 30 years ago, EPA stated that it intended to regulate asbestos emissions from the taconite industry. The same commenter stated that the 1973 asbestos NESHAP had excluded "mineral processing operations that may contain asbestos as a contaminant." The commenter further pointed out the Congress rejected this approach when it passed the CAA Amendments of 1990.

One of the commenters pointed out that in a 1975 *Reserve Mining* decision, the U.S. Court of Appeals for the Eighth Circuit stated in regard to emissions from the Co. plant (now operated by Northshore) that "Reserve discharges fibers substantially identical and in some instances identical to fibers of amosite asbestos." The trial court heard extensive evidence as to the chemistry, crystallography, and morphology of the cummingtonite-grunerite present in the mined ore. This evidence demonstrated that, at the level of the individual fiber, a portion of Reserve's cummingtonite-grunerite cannot be meaningfully distinguished from amosite asbestos. Reserve attempted to rebut this testimony by showing that the gross morphology of the two minerals differed and the characteristics of the two minerals varied when considered in crystal aggregations. Since, according to the opinions of some experts, the individual fiber probably serves as a carcinogenic agent, the district court viewed the variations in mineralogy as irrelevant and determined that Reserve discharges fibers substantially identical and in some instances identical to amosite asbestos.

One commenter stated that it should be noted in the proposal preamble that only one mine remains operating at the

eastern end of the Mesabi Range where acicular (needle-like) minerals may be present in the ore. The commenter also stated that the proposal preamble overstated the efforts of EPA's work group investigation of asbestos in taconite ore. The commenter asserted that the work group is focused mainly on vermiculite and is unlikely to study or recommend "solutions" for the taconite industry.

One commenter stated that EPA's refusal to set beyond-the-floor standards for asbestos is unlawful.

Response: Although we are compelled to develop MACT standards for HAP from major sources, and "asbestos" is listed as a HAP in section 112(b) of the CAA, "asbestos" is not a single chemical substance or an easily identified group of chemicals or substances. Our previous regulatory experience with asbestos as an air pollutant has been limited to those substances commercially used for their properties, such as a high resistance to heat and most chemicals. More recently, the Agency has become concerned with those and similar substances that may occur as a contaminant in other mined materials and then be released into the air during processing activities.

When Congress listed "asbestos" as a HAP in section 112(b)(1), it did not further explain the term in the statute, and EPA is not aware of any legislative history addressing the term asbestos. Currently, EPA regulatory definitions for "asbestos" are provided in the Asbestos NESHAP, as revised in 1990 (40 CFR 61.141, subpart M), and the regulations for addressing asbestos-containing materials in schools (40 CFR 763.83). Both rulemakings, which focus on commercial asbestos, define asbestos as the asbestiform varieties of six different minerals: chrysotile (serpentinite), crocidolite (riebeckite), amosite (cummingtonite-grunerite), anthophyllite, actinolite, and tremolite. As some commenters have indicated, it is correct that the ore from the eastern end of the Mesabi Range is comprised to some extent of cummingtonite-grunerite and ferroactinolite (an iron-based form of actinolite), two of the above listed asbestos-like minerals.

Similarly, other Federal agencies' standards for "asbestos," for example, the Occupational Safety and Health Administration (OSHA), were developed for commercial asbestos products and not asbestos as a contaminant in another material (29 CFR parts 1910, 1915, and 1926). Current OSHA workplace air regulations apply only to chrysotile, crocidolite, amosite, and the asbestiform varieties of anthophyllite, tremolite, and actinolite. The word asbestos is often added after the mineral (*e.g.*, tremolite asbestos) to signify that the asbestiform variety of the mineral is being referred to. This is not necessary for chrysotile, crocidolite, or amosite because these are terms specific to the asbestiform varieties of the minerals (which are serpentine, riebeckite, and cummintonite-grunerite, respectively).

Since the EPA first regulated asbestos as a HAP, a distinction has been made on applying the term asbestos to commercially manufactured products and not as a contaminant in other materials. When the Asbestos NESHAP was promulgated in 1973, the EPA Administrator made explicit in accompanying comments that the NESHAP only apply to asbestos mines and asbestos mills. Approximately 1 year after the rule was promulgated, EPA further clarified the rule by stating it does not apply to asbestos occurring as a contaminant as distinguished from asbestos as a product (39 FR 15397, May 3, 1974). In a 1974 revision to the Asbestos NESHAP, the Administrator added a definition of "commercial asbestos" to distinguish asbestos which is produced as a product from asbestos which occurs as a contaminant in other materials.

Furthermore, when the CAA was amended in 1990, EPA's approach in developing NESHAP was significantly altered through the use of the HAP list under section 112(b) and the application of technology-based standards under section 112(d) instead of a strict risk-based approach. However, the CAA amendments in 1990 did not provide any further guidance on how the definition of asbestos could be applied beyond its use in the Asbestos NESHAP to address asbestos as a contaminant in other materials.[1] Based on EPA's historical use of the term "asbestos," it has been used in the context for commercially produced products and not, as yet, as a contaminant in other products. In summary, there is no technical or regulatory consensus on the set of minerals pertinent to contaminant asbestos.

Notwithstanding the real technical uncertainties as to how to classify the fibers in the Northshore emissions, commenters argued that the issue had already been decided by virtue of the Eighth Circuit's *Reserve Mining* decision, which found that *Reserve Mining* (now Northshore) emitted asbestos for purposes of ordering injunctive relief. First, any suggestion that EPA is now precluded from making a different factual determination is not correct. The issue decided in *Reserve Mining* is different from the one involved here: whether the Northshore fibers are "asbestos" for purposes of section 112 (b) of the CAA, a provision not at issue in *Reserve Mining* since it did not even exist at the time of the decision.

Second, EPA is not acting in the context of a plea for general injunctive relief (as in *Reserve Mining*), but rather to implement a limited grant of statutory authority to regulate the HAP "asbestos." We have looked for existing, objective means of determining if Northshore's fibers are "asbestos" and currently find the situation uncertain. In light of this uncertainty, we are not establishing MACT standards for the fibers emitted by Northshore. Rather, the issue of which non-commercial fibers are "asbestos" for purposes of section 112(b) is one that must first be decided in a broader context.

In response to the events surrounding exposures of residents to asbestos that occurred as a contaminant in a vermiculite mine in Libby, Montana, EPA is currently studying the complex issues involved with asbestos emissions from beneficiation and subsequent processing of minerals where asbestos may be present as a contaminant. One component of this activity is a comprehensive update to the asbestos entry in the Agency's Integrated Risk Information System (IRIS). In the hazard and dose-response assessment pieces of the update, the current information on mineralogy, size, bioactivity and chemistry of different asbestos fibers is being considered. Within the past 3 years, the Agency has sponsored or co-sponsored several technical meetings aimed at bringing together the current knowledge on asbestos, its characteristics and related health effects. These include, but are not limited to:

- May 24–25, 2001, "Asbestos Health Effects Conference" in Oakland, California;
- February 25–27, 2003, "Asbestos Cancer Risk Peer Consultation" in San Francisco, California; and
- June 12–13, 2003, "Asbestos Mechanisms of Toxicity Workshop" in Chicago, Illinois. Integration of the information gathered through these and other mechanisms will compose the

[1] We thus disagree with the commenter who stated, without citation, that the 1990 amendments to the CAA were intended to compel section 112(d) standards to control the fibers emitted from non-commercial sources. The commenter is correct in that section 112 is not limited to commercial asbestos emissions, but nothing in the statute or its legislative history of which EPA is aware indicate that Congress intended a particular meaning of "asbestos" or that particular fiber-emitting sources be regulated under section 112 by virtue of the inclusion of "asbestos" in the list of HAP.

support documents for the new IRIS file and will assist us in decisionmaking regarding contaminant asbestos.

As part of the response to the findings in Libby, the Agency has developed an action plan which identifies steps necessary to gather the information needed to decide whether regulations for sources of contaminant asbestos emissions are warranted. The action plan specifies vermiculite mining and processing operations as the first area of focus. Contrary to one commenter's assertion, the action plan also includes plans to assess emissions, exposure and risk associated with asbestos that occurs as a contaminant from other mining and processing operations, including taconite ore mining and processing. That assessment will inform decisions on specific risk-based regulation of asbestos that occurs as a contaminant in taconite ore mining and processing. Specific risk-based emission limitations for asbestos are not included in the technology-based final rule.

In addition, an International Fiber Symposium was held in St. Paul, MN in April 2003. The papers presented at the symposium are in a peer-review process and will then be published. Once the proceedings are published, the Minnesota Department of Health (MDH) will determine if they can conduct a risk assessment for fibers or if they can draw any conclusions about the potential health impacts from fibers. Based on MDH's findings, the MPCA and Minnesota Department of Natural Resources may make policy changes with respect to fibers. Until then, MPCA will continue to regulate airborne fibers from Northshore as required by the court who deemed the fibers a health concern.

Finally, we note that Northshore is in fact controlling emissions of its fibers in part with baghouses, which are the optimum control technology for air emission of fibers (a point made, among other places, in the *Reserve Mining* decision itself). Since the *Reserve Mining* decision, ambient air monitoring around the plant has demonstrated a significant reduction in fiber emissions through the installation of high efficiency baghouses on ore crushing and handling emission units and wet ESP on the indurating furnace exhaust stacks. Baghouses are not a control option for indurating furnaces due to the high moisture content (10 to 15 percent) in the exhaust gases. The high moisture content causes PM to cake and plug the filtering material causing filters to be ineffective. In addition, further reductions in fiber emissions are expected through compliance with the PM emission standards in the final rule. Representatives at Northshore have indicated that existing emission units equipped with multiclones are likely to be replaced with more efficient PM control devices in order to comply with the PM emission standards in the final rule. Northshore representatives provided us with the estimated costs for such an equipment upgrade, and these control costs are reflected in our revised cost impacts for the final rule.

Formaldehyde

Comment: One commenter stated that EPA has a statutory obligation to set emission standards for formaldehyde. The commenter asserted that the standard for formaldehyde must be at least as stringent as the average formaldehyde emission level of the five best performing plants. The commenter stated that whether or not there are feasible control technologies for formaldehyde is irrelevant.

Response: As EPA stated at proposal, formaldehyde (and other organic HAP) are emitted in very low concentrations by taconite processing indurating furnaces, not because these organic HAP are contained in feed or fuel input to the process, but rather as products of incomplete combustion (PIC) necessarily generated when fossil fuels are burned (in any type of process, not just in indurating furnaces) (67 FR 77570). Formaldehyde from indurating furnace emissions has been measured through stack testing at concentrations that are typically less than 1 part per million (ppm).

The EPA stated somewhat inaccurately at proposal that formaldehyde emissions from indurating furnaces are currently uncontrolled. It is clear from context that we meant that there are no current "at-the-stack" controls for formaldehyde (and other PIC) emissions from these furnaces, although control of the combustion process minimizes PIC (including formaldehyde) formation and hence PIC emissions. We reiterate that at-the-stack controls in place to control PM emissions have no effect on PIC emissions. We also know of no feasible at-the-stack control technology for reducing formaldehyde emissions at these extremely low concentrations and at the exhaust gas temperatures typically encountered at indurating furnaces.

The only known technology for the control of formaldehyde emissions at concentrations of less than 1 ppm is thermal catalytic oxidation, in which formaldehyde is contacted with a precious metal catalyst in the presence of oxygen and high temperature (650 to 1,350 °F) to yield carbon dioxide and water. Destruction efficiencies of 85 to 90 percent have been demonstrated on formaldehyde emissions contained in the exhaust gas from stationary combustion turbines at concentrations in the parts per billion range and temperatures of 1,000 °F or higher. Destruction efficiencies, however, decrease exponentially at reaction temperatures below 650 °F, reaching less than 10 percent at exhaust gas temperatures of 300 °F or lower, which is typical of most indurating furnaces. Burning large quantities of additional fuel, such as natural gas, to heat the exhaust gases to the desired temperature would generate large additional quantities of carbon dioxide (a gas potentially connected to global climate change) and NO_X (ozone precursors). As at proposal, given the significant issues of technical feasibility and adverse environmental impacts associated with use of this technology, it is not the proper basis for MACT standards (67 FR 77571).

We also reiterate that fuel switching is not a justifiable means of control. Most indurating furnaces currently utilize natural gas as a fuel, and PIC emissions are higher for natural gas than for coal, but switching to coal would increase emissions of HAP metals in much larger amounts than the minimal PIC emissions attributable to natural gas burning. See S. Rep. 101–228, 101st Cong. 1st sess. at 168 ("In cases where control strategies for two or more different pollutants are in actual conflict, the Administrator shall apply the same principle—maximum protection of human health shall be the objective test.")

Consequently, the only form of control currently used and feasible to minimize formaldehyde emissions is the proper and efficient operation of an indurating furnace with GCP. It is clear from the low measured levels of formaldehyde emitted from these furnaces that this means of control is highly effective.

In general, good efficiency of a combustion device is governed by time, temperature, and turbulence, the three "T's" of combustion. Efficient combustion is achieved when a selected fuel reaches an optimum temperature for a minimum residence time with sufficient turbulence to allow oxidation of all organic compounds to completely react to the products of combustion—water and carbon dioxide. However, there are many phenomena associated with combustion that lead to the formation of PIC. Examples of possible phenomena include: Unburned fuel, quenches or cool zones in the combustion area, fuel rich zones, low

combustion temperatures, insufficient air (oxygen) contact with fuel due to limited turbulence, and changes to the combustion process due to load swings or feed changes.

Good combustion practices typically encompass several elements such as the proper operation of the combustion process, routine inspection and performance analysis of the process, and preventative maintenance. More specific examples of GCP indicating the range of existing practices are listed below:

- Maintain operator logs;
- Develop procedures for startup, shutdown, and malfunction;
- Perform periodic evaluations or inspections;
- Perform burner or control adjustments/tune-ups;
- Monitor and maintain concentrations of carbon monoxide (CO), oxygen (O_2), or carbon dioxide (CO_2) in compliance with site-specific concentration limits in the combustion exhaust;
- Monitor and maintain combustion temperatures above a site-specific minimum value;
- Monitor fuel/air metering;
- Comply with a CO or total organic carbon (TOC) emission limit;
- Maintain proper liquid fuel atomization;
- Monitor fuel quality and handling procedures;
- Maintain combustion air distribution; and
- Maintain fuel dispersion.

Although all indurating furnaces need to use GCP to minimize PIC emissions, determining what precisely is GCP involves site-specific determinations for each furnace. For example, some indurating furnaces have been required to install NO_X emission controls such as low NO_X burners. The basic method used in reducing NO_X emissions is a reduction in combustion temperature, which is the opposite strategy needed for minimizing PIC (*i.e.*, increasing combustion temperature). Thus, due to differences in furnace design, operation, firing fuel, process controls, and air pollution control equipment, one set of GCP established for one type of indurating furnace may be different from those needed for another type of indurating furnace.

In addition, State operating permits for the taconite indurating furnaces do not require any specific set of GCP. However, based on discussions held with industry representatives, all sources already use a wide variety of work practices (*e.g.*, existing Standard Operating Procedures) to maintain proper and efficient operation of each indurating furnace. See the July 11, 2003 memorandum, "Meeting Minutes on Good Combustion Practices with Taconite Industry Representatives." Sources have a strong and inherent economic incentive to ensure that fuel is not wasted, and that the combustion device operates properly and is appropriately maintained. The lack of a uniform approach to assuring combustion efficiency is not surprising given the differences of indurating furnace designs, and the fact that existing Federal/State standards do not include GCP requirements for indurating furnaces.

Thus, we have determined that site-specific GCP are the MACT floor for formaldehyde emissions from existing sources. In evaluating potential beyond-the-floor options, we considered the only known at-the-stack technology for the control of formaldehyde emissions at concentrations of less than 1 ppm—thermal catalytic oxidation, which was described earlier. However, as discussed previously, given the significant issues of technical feasibility (*e.g.*, low exhaust gas temperatures, high volumetric flow rates of exhaust gas, and low concentrations of formaldehyde), adverse environmental impacts in the form of increased energy use, and the tremendous additional cost associated with use of this technology, we determined that a standard based on use of thermal catalytic oxidation was not a viable beyond-the-floor option. Since there is no other form of emission control or work practice to control formaldehyde emissions from indurating furnaces, the site-specific GCP documented in the operation and maintenance plan were also determined as the MACT floor for formaldehyde emissions from new indurating furnace sources.

We further find that under CAA section 112(h)(1), it is not feasible to prescribe or enforce an emission standard for HAP because at-the-stack controls are not feasible (as explained earlier), and monitoring parameters related to GCP can only meaningfully result in minimization of PIC emissions if such monitoring parameters are quantified on a site-specific basis.

Since it is not possible to identify any uniform requirements or set of work practices that would meaningfully reflect the use of GCP, the final rule requires each source to identify site-specific work practices for each indurating furnace and to document these GCP in an operation and maintenance plan in accordance with § 63.9600 of the final rule. A GCP control strategy could include a number of combustion conditions and work practices which, applied collectively, promote good combustion performance and minimize the formation of formaldehyde/PIC emissions. Thus, the MACT requirement for these sources is to use GCP, and for each source to develop an operation and maintenance plan that details appropriate operating parameters for each of the following elements of GCP, or explains why such operating parameters are either inappropriate or unnecessary for the source ("inappropriate" or "unnecessary" to be determined by the degree to which PIC formation from fuel combustion in the furnace is minimized):

- Proper operating conditions for each indurating furnace (*e.g.*, minimum combustion temperature, maximum CO concentration in the furnace exhaust gases, burner alignment, or proper fuel-air distribution/mixing).
- Routine inspection and preventative maintenance and corresponding schedules of each indurating furnace.
- Performance analyses of each indurating furnace.
- Keeping applicable operator logs.
- Keeping applicable records to document compliance with each element.

A source's compliance with its startup, shutdown, and malfunction plan also will contribute to GCP.

A final determination that the values established in the operation and maintenance plan are appropriate GCP for the source would then be achieved by submitting the plan to the Administrator on or before the compliance date that is specified in § 63.9583 of the final rule for the affected source. The operation and maintenance plan must explain why the chosen elements and work practices are considered GCP for the affected source. The quantified parameters (*e.g.*, furnace operating temperature) contained in the plan become enforceable operating conditions unless and until the Administrator acts to establish new parameters.

The Administrator will evaluate the demonstration and determine whether the chosen elements and work practices minimize the formation of formaldehyde (and other PIC) and so constitute GCP for the furnace. The Administrator will review the adequacy of the site-specific procedures and the records to demonstrate that the plan constitutes GCP. If the Administrator determines that any portion of the plan is not adequate, we can reject those portions of the plan and request additional information addressing the relevant issues.

Finally, with respect to the commenter's point that EPA is obligated to establish MACT standards for formaldehyde, EPA has established such standards, based on GCP implemented by means of an operation and maintenance plan and site-specific determinations through the permitting process, as explained above.

HCl and HF

Comment: One commenter stated that EPA has a clear statutory obligation to set emission standards for each listed HAP, including HCl and HF. The commenter asserted that, just because plants are achieving some incidental control of acid gases, it does not free EPA of its statutory obligation to set a specific emission limit for HCl and HF. Two commenters stated that EPA must set a standard for HCl and HF that reflects, at a minimum, the average emission level achieved by the five best performing plants. One commenter cited the *National Lime* opinion which states "The CAA requires EPA to set MACT floors upon the average emission limitation achieved; it nowhere suggests that this achievement must be the product of specific intent."

One commenter stated that EPA's rejection of beyond-the-floor standards for HCl and HF is not logical when a technology is available and substantially reduces HAP. The commenter contended that available acid gas control technology would yield a far greater degree of reduction than is required by EPA's proposed standards, which require no reduction at all.

Response: Acid gases (HCl and HF) are formed in the indurating furnace due to the presence of chlorides and fluorides in pellet additives, such as dolomite and limestone, as well as in the ore bodies. The taconite industry has not installed equipment specifically for the purpose of controlling acid gases from indurating furnace stacks, but, as the commenters correctly note, intent is irrelevant in determining HAP control (*National Lime*). What matters is the extent of control, where control in fact occurs. Test data for HCl and HF emissions were available from seven indurating furnaces at six taconite plants. Since most of the furnaces have multiple stacks, these tests represent emissions from fifteen control devices: 8 venturi scrubbers, 2 multiclones, 3 dry ESP, and 2 wet ESP. These data show that, except for emissions from stacks controlled with multiclones, HCl and HF are emitted from indurating furnaces at very low concentrations, typically less than 3 ppm.

Of the six plants for which HCl and HF test data were available, three plants conducted PM emissions tests concurrently with the HCl and HF tests. These tests represent emissions from 3 furnaces and 8 emission control devices: 4 venturi scrubbers, 2 multiclones, and a dry ESP/wet ESP ducted together. An analysis of the HCl and HF emissions data and the corresponding PM emissions data indicates that, for this industry, there is a correlation between acid gas and PM emissions from control devices on indurating furnaces. Specifically, the data indicate that stacks with higher PM emissions also have higher acid gas emissions, and likewise, stacks with lower PM emissions have lower acid gas emissions ("Correlation of Acid Gas Emissions to PM Emissions for Taconite Indurating Furnaces," July 2003). Consistent with this correlation, the best performing sources for PM are also the best performing for acid gas emissions.

There is an engineering basis for this correlation. Due to the strong affinity of acid gases for water, PM control equipment that uses water, such as wet scrubbers and wet ESP, has the capability of reducing HCl and HF emissions substantially. Therefore, wet scrubbers and wet ESP control technologies used for the reduction of PM emissions from taconite indurating furnaces to achieve the MACT level of control for HAP metals are expected to achieve a reduction of acid gas emissions as well. Standards requiring good control of PM emissions for this industry will also achieve control of acid gas emissions. For the taconite industry, PM emissions can be used as a surrogate for the acid gases emitted from taconite indurating furnaces. Therefore, we are establishing standards for total PM as a surrogate pollutant for the acid gases, HCl and HF. This finding is valid only for these taconite indurating furnace data; data for other industries may not show a correlation between acid gas emissions and PM emissions. Therefore, this finding should not be used as a precedent in other rulemakings.

Establishing separate standards for acid gases would impose costly and significantly more-complex compliance and monitoring requirements. In addition, establishing separate standards for acid gases would achieve little, if any, HAP emissions reductions beyond what would be achieved using the total PM surrogate pollutant approach. Consequently, EPA has chosen to establish a standard for acid gases using the PM surrogate. Therefore, the MACT floor level of control for acid gases is equivalent to (and expressed as) the MACT floor level of 0.01 gr/dscf for PM.

We then examined the beyond-the-floor option. The next increment of control beyond the floor is the installation of venturi scrubbers or dry ESP capable of meeting a PM concentration limit of 0.006 gr/dscf, which is equivalent to the level of PM control required for new furnaces. We estimate the additional capital cost of going from the MACT level of 0.01 gr/dscf for PM to 0.006 gr/dscf to be $99.7 million per year. We estimate the corresponding additional reduction in acid gases achieved by this PM level to be 112 tons of acid gases. The cost per ton of acid gas is $890,000/ton. The energy increase would be expected to be 53,436 mega-watt hours per year, primarily due to the energy requirements of new wet scrubbers and dry ESP. (Beyond-the-Floor Analysis for Acid Gases, July 2003). The high cost, the small reduction in HAP emissions, and the additional energy requirements do not justify this beyond-the-floor alternative for acid gases. Consequently, we chose the MACT floor level of control for PM of 0.01 gr/dscf as the existing indurating furnace MACT for acid gases. New source MACT for acid gases is equivalent to the PM new source MACT level of 0.006 gr/dscf.

By establishing a standard for acid gases, we have addressed the commenters' point that the Agency is legally obligated to do so.

PM as a Surrogate for Metallic HAP

Comment: One commenter asserted that EPA cannot use a surrogate when doing so would result in regulations that do not include emission standards for each listed HAP or in standards that do not at least match the average emission level that the best sources achieve. The commenter pointed out that the Court has already held that the use of PM as a surrogate for non-mercury metals is not reasonable and, therefore, not lawful where factors other than PM control affect emissions of such metals (*National Lime*). The commenter reasoned that, since each plant's actual metallic HAP emission levels are influenced not just by PM control technology but also to a very large extent by the HAP metal content in the ore used, the use of PM as a surrogate for non-mercury metals is unlawful.

The commenter stated that, in the past, EPA has recognized that it can set standards for groups of metals that behave similarly (for example, in the hazardous waste combustors rule). The commenter asserted that EPA has no basis for assuming that its only two options are either to set a PM standard for all HAP or to set individual emission standards for each HAP. The commenter

stated that EPA must explain why it cannot set emission standards for groupings of metals or for representative surrogate metals rather than just a PM standard.

The commenter explained that the correlation of PM to any given metal varies with the volatility of the metal in question; therefore, EPA cannot assume that all the metals emitted by taconite plants will consistently behave as PM. The commenter stated that different PM control devices have different collection efficiencies for different metals. Therefore, the commenter stated that, even if all taconite plants had identical HAP metal input, EPA could not assume that any two plants have identical (or even similar) emission rates for any given metal.

Two commenters supported using PM as a surrogate for total HAP emissions. The commenters stated that "it is far more appropriate to use PM for total metal HAP than to attempt to specialty individual metal HAP. The earthen material that is processed is not necessarily identical in composition in each and every shovelful of material. It would be impossible to account for differences in individual HAP metal content for each load processed."

Response: We disagree with the first commenter; PM is a valid surrogate for the HAP metal compounds emitted from taconite iron ore processing plants. As indicated in the preamble to the proposed rule, metallic HAP are emitted from ore crushing and handling units, indurating furnaces, finished pellet handling units, and ore dryers. We determined that it is not practical to establish individual standards for each metallic HAP that could be present in the various processes (*e.g.*, separate standards for manganese compound emissions, separate standards for lead compound emissions, and so forth for each metal compound group listed as HAP that is potentially present).

A key parameter for the control of both semi-volatile and non-volatile metal compounds is the operating temperature of the air pollution control device that is applied. At temperatures of 200 to 400 °F, the range typical of control devices applied to emissions from taconite indurating furnaces, any semi-volatile and non-volatile HAP metal compounds present, except elemental mercury, would exist in the form of fine PM and, therefore, would be controlled in direct relationship to PM. As a result, strong correlations exist between PM emissions and emissions of the individual metallic HAP compounds. Control technologies used for the reduction of PM emissions achieve comparable levels of reduction of metallic HAP emissions. Standards requiring good control of PM emissions will also achieve a similar level of control of metallic HAP emissions. Therefore, we are establishing standards for total PM as a surrogate pollutant for the individual metallic HAP. Establishing separate standards for each metallic HAP would impose costly and significantly more complex compliance and monitoring requirements. In addition, establishing separate standards for each metallic HAP would achieve little, if any, HAP emissions reductions beyond what would be achieved using the total PM surrogate pollutant approach.

IV. Summary of Environmental, Energy, and Economic Impacts

The environmental, energy, and economic impacts of the final rule are based on the replacement of poor performing controls at existing sources with new controls capable of meeting the emission limits established in the final rule. We did not estimate impacts for new sources since we do not project any new or reconstructed affected sources becoming subject to the new source MACT requirements in the foreseeable future. Specifically, we anticipate that two plants will install new impingement scrubbers on a total of 33 out of the 264 ore crushing and handling emission units to meet the PM emission limit. We expect that four plants will install new venturi-rod wet scrubbers or will upgrade existing wet scrubbers on at least one of their indurating furnaces. In total, we estimate that the existing controls will be replaced with new venturi-rod wet scrubbers on three of the 47 indurating furnace stacks. We estimate that the existing controls will be upgraded with new components on eight of the 47 indurating furnace stacks. We anticipate that four plants will install new impingement scrubbers on a total of 11 out of the 82 finished pellet handling emission units to meet the finished pellet handling PM emission limit.

A. What Are the Air Emission Impacts?

The installation of new controls and upgrades discussed in the preceding paragraph will result in reductions in emissions of metal HAP, acid gases, and PM. Overall, the final standards are expected to reduce HAP emissions by a total of 270 tpy, a reduction of about 43 percent. Metallic HAP emissions will be reduced by 14 tpy (a 42 percent reduction) and acid gas emissions (HCl and HF) will be reduced by 256 tpy (a 51 percent reduction). In addition, the final standards are expected to reduce PM emissions by 10,538 tpy, a reduction of about 62 percent.

B. What Are the Cost Impacts?

The total installed capital costs to the industry for the installation of control equipment are estimated to be $57 million. Total annualized costs are estimated at $9 million/yr, which includes $4.5 million/yr in capital recovery costs, $3.2 million/yr in emission control device operation and maintenance costs, and $0.9 million/yr for monitoring, recordkeeping and reporting. These costs are based on the installation of new wet scrubbers on 33 ore crushing and handling units, three indurating furnace stacks, and 11 finished pellet handling units. The costs are also based on upgrading two wet scrubbers and six ESP for indurating furnaces. In addition, the estimate includes the cost of bag leak detection systems for baghouses, CPMS for scrubbers and wet ESP, and COMS for dry ESP.

C. What Are the Economic Impacts?

We prepared an economic analysis to evaluate the impact the final rule will have on the producers and consumers of taconite and society as a whole. The taconite industry consists of eight companies owning eight mining operations, concentration plants, and pelletizing plants. The total annualized social cost of the final rule is $8.6 million (in 2002 dollars), which is almost the same as the total annualized compliance cost. This cost is distributed among consumers (mainly steel mills) who may buy less and/or spend more on taconite iron ore as a result of the Taconite NESHAP, including merchant taconite producers that sell their output on the market, integrated iron and steel plants that produce and consume the taconite captively within the company, steel producers that use electric arc furnace (EAF) technology to produce steel from scrap, and foreign producers. Consumers incur $2.8 million of the total social costs, merchant producers incur $3.7 million in costs, and integrated iron and steel producers incur $4.5 million in costs. The EAF producers and foreign producers enjoy a net gain in revenues of $1.1 million and $1.3 million, respectively.

Our analysis indicates that the taconite iron ore market will experience minimal changes in the price and quantity of ore produced, and in the prices and quantities of steel mill products (some of which are produced using taconite). Prices in the taconite iron ore market are estimated to increase by 0.17 percent while production may decrease by 0.14 percent. The price of

steel mill products is projected to increase by less than 4/1000th of 1 percent and the quantity produced is projected to change by less than 3/1000th of 1 percent. The EAF steel producers who make steel from scrap rather than iron ore are projected to increase their output by approximately 15/100th of 1 percent in response to the slight increase in the price of steel mill products. While the market overall shows minimal impacts associated with the final rule, the financial stability of the firms operating in this market is very uncertain. The past few years have been a period of tremendous change in the iron and steel industry, during which more than 29 companies in the industry have declared bankruptcy, several plants have closed, and EAF technology has secured a growing share of the market. These changes have occurred due to evolving economic conditions, both domestically and abroad, and technological developments within the industry. Conditions continue to be challenging for iron and steel producers. In an assessment of the impacts on the companies owning taconite plants, we find the estimated costs of the final rule are uniformly less than 1 percent of baseline sales revenues, and typically less than 3 percent of baseline profits. However, four of the companies had negative operating income in 2002, a period of time during in which the entire Nation experienced lower than the historical average for economic activity. A number of companies owning taconite plants have filed for protection under Chapter 11 of the bankruptcy code since 2001. Thus, there is reason to be concerned about the financial condition of companies owning taconite plants. The incremental effect of the final rule on firm financial stability, however, is projected to be very small.

We also prepared a sensitivity analysis that examined the regional impacts of the final rule. All the taconite production plants are located within four counties in Minnesota and one in Michigan. Thus, the impacts of the final rule are expected to be concentrated geographically. We modeled the supply and demand linkages of the various industries and households within each county to estimate changes that may occur in the region as the taconite industry complies with the final NESHAP. We estimate that as industries that interact with the taconite industry (such as construction and earth moving equipment industries) react to the changes in the taconite market, and as household incomes are reduced as a result of changes in all the various industries in the region, the impact of the final rule will add approximately $0.4 million in economic cost to the region. This represents approximately 2/100ths of 1 percent of total sales in those counties. Thus, even though the impacts are concentrated in only five counties, we believe that the impacts on those county economies will not be very large.

For more information on these economic impacts, please refer to the economic impact analysis that is in the final rule docket (ID No. OAR–2002–0039).

D. What Are the Non-Air Health, Environmental, and Energy Impacts?

We project that the implementation of the final rule will increase water usage by 8 billion gallons per year industrywide. This increased water usage is expected to result from the installation of new wet scrubbers needed for compliance. Much of this water will be discharged as scrubber blowdown to the tailings basin(s) located at each plant. At two or more of the affected facilities, there is the potential that this increased wastewater burden will result in new or aggravated violations of permitted wastewater discharge limits from the tailings basins unless significant measures are taken to install new or upgrade existing wastewater treatment systems. The energy increase is expected to be 14,309 megawatt-hours per year, primarily due to the energy requirements of new wet scrubbers.

V. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the EPA must determine whether the regulatory action is "significant" and, therefore, subject to review by the Office of Management and Budget (OMB) and the requirements of the Executive Order. The Executive Order defines a "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) materially alter the budgetary impact of entitlement, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

It has been determined that the final rule is not a "significant regulatory action" under the terms of Executive Order 12866, and is, therefore, not subject to OMB review.

B. Paperwork Reduction Act

The information collection requirements in the final rule have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The information requirements are not enforceable until OMB approves them.

The information requirements are based on notification, recordkeeping, and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A), which are mandatory for all operators subject to NESHAP. These recordkeeping and reporting requirements are specifically authorized by section 112 of the CAA (42 U.S.C. 7414). All information submitted to the EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to Agency policies in 40 CFR part 2, subpart B.

The final rule requires applicable one-time notifications required by the General Provisions for each affected source. As required by the NESHAP General Provisions, all plants must prepare and operate by a startup, shutdown, and malfunction plan. Plants are also required to prepare an operation and maintenance plan for control devices subject to operating limits, a monitoring plan for baghouses and CPMS, a fugitive emissions control plan, and a performance testing plan. Records are required to demonstrate continuous compliance with the monitoring, operation, and maintenance requirements for control devices and monitoring systems. Semiannual compliance reports also are required. These reports must describe any deviation from the standards, any period a continuous monitoring system was "out-of-control," or any startup, shutdown, or malfunction event where actions taken to respond were inconsistent with the startup, shutdown, and malfunction plan. If no deviation or other event occurred, only a summary report is required. Consistent with the General Provisions, if actions taken in response to a startup, shutdown, or malfunction event are not consistent with the plan, an immediate report must

be submitted within 2 days of the event with a letter report 7 days later.

The annual public reporting and recordkeeping burden for this collection of information (averaged over the first 3 years after October 30, 2003 is estimated to total 111 labor hours per year at a total annual cost of 920,722, including labor costs, monitoring equipment capital costs, and operation and maintenance costs. Total capital costs associated with the monitoring equipment is estimated at $4,576,955. The total annualized cost of the monitoring equipment is estimated at $392,751. This estimate includes the capital, operating, and maintenance costs associated with the installation and operation of the monitoring equipment.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purpose of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9. When this ICR is approved by OMB, the Agency will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number of the approved information collection requirements contained in the final rule.

C. Regulatory Flexibility Act

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the final rule. The EPA has also determined that the final rule will not have a significant economic impact on a substantial number of small entities. For purposes of assessing the impacts of today's final rule on small entities, small entity is defined as: a small business according to the U.S. Small Business Administration (SBA) size standards for NAICS code 21221 (Taconite Iron Ore Processing Facilities) of 500 or fewer employees; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's final rule on small entities, EPA has concluded that this action will not have a significant economic impact on a substantial number of small entities. Based on the SBA size category for this source category, no small businesses are subject to the final rule and its requirements.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures by State, local, and tribal governments, in the aggregate, or by the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least-burdensome alternative that achieves the objectives of the final rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least-costly, most cost-effective, or least-burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

Today's final rule contains no Federal mandate (under the regulatory provisions of the UMRA) for State, local, or tribal governments. The EPA has determined that the final rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector of $100 million or more in any 1 year. Thus, the final rule is not subject to the requirements of sections 202 and 205 of the UMRA. The EPA has also determined that the final rule contains no regulatory requirements that might significantly or uniquely affect small governments. Thus, today's final rule is not subject to the requirements of section 203 of the UMRA.

E. Executive Order 13132: Federalism

Executive Order 13132 (64 FR 43255, August 10, 1999) requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

The final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. None of the affected facilities are owned or operated by State governments. Thus, Executive Order 13132 does not apply to the final rule.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175 (65 FR 67249, November 9, 2000) requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications."

The final rule does not have tribal implications, as specified in Executive Order 13175. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal

government and Indian tribes. No tribal governments own facilities subject to the Taconite NESHAP. Thus, Executive Order 13175 does not apply to the final rule.

G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be "economically significant," as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, EPA must evaluate the environmental health or safety effects of the planned rule on children and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The final rule is not subject to Executive Order 13045 because it is based on control technology and not on health or safety risks.

H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use

The final rule is not subject to Executive Order 13211 (66 FR 28355, May 22, 2001) because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Public Law No. 104–113; 15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

The final rule involves technical standards. The EPA cites the following standards in the final rule: EPA Methods 1, 2, 2F, 2G, 3, 3A, 3B, 4, 5, and 17. Consistent with the NTTAA, EPA conducted searches to identify voluntary consensus standards in addition to these EPA methods. No applicable voluntary consensus standards were identified for EPA Methods 2F and 2G, and none were brought to our attention in comments.

The voluntary consensus standard ASME PTC 19–10–1981—Part 10, "Flue and Exhaust Gas Analyses," is cited in the final rule for its manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas. This part of ASME PTC 19–10–1981—Part 10 is an acceptable alternative to Method 3B.

The search for emissions measurement procedures identified 14 voluntary consensus standards. The EPA determined that 12 of these 14 standards identified for measuring emissions of the HAP or surrogates subject to emission standards in the final rule were impractical alternatives to EPA test methods for the purposes of the final rule. Therefore, EPA does not intend to adopt these standards for this purpose. The reasons for this determination for the 12 methods are available in the docket.

Two of the 14 voluntary consensus standards identified in this search were not available at the time the review was conducted for the purposes of the final rule because they are under development by a voluntary consensus body: ASME/BSR MFC 13M, "Flow Measurement by Velocity Traverse," for EPA Method 2 (and possibly 1); and ASME/BSR MFC 12M, "Flow in Closed Conduits Using Multiport Averaging Pitot Primary Flowmeters," for EPA Method 2.

Sections 63.9621 and 63.9622 to 40 CFR part 63, subpart RRRRR, list EPA testing methods included in the final rule. Under §§ 63.7(f) and 63.8(f) of subpart A of the General Provisions, a source may apply to EPA for permission to use alternative test methods or alternative monitoring requirements in place of any EPA testing methods, performance specifications, or procedures.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing the final rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the final rule in the **Federal Register**. The final rule is not a "major rule" as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 63

Environmental protection, Air pollution control, Hazardous substances, Reporting and recordkeeping requirements.

Dated: August 25, 2003.

Marianne Lamont Horinko,

Acting Administrator.

■ For the reasons stated in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is amended as follows:

PART 63—[AMENDED]

■ 1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

■ 2. Part 63 is amended by adding subpart RRRRR to read as follows:

Subpart RRRRR—National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing

Sec.

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What This Subpart Covers

§ 63.9580 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for taconite iron ore processing. This subpart also establishes requirements to demonstrate initial and continuous compliance with all applicable emission limitations (emission limits and operating limits), work practice standards, and operation and maintenance requirements in this subpart.

§ 63.9581 Am I subject to this subpart?

You are subject to this subpart if you own or operate a taconite iron ore processing plant that is (or is part of) a major source of hazardous air pollutant (HAP) emissions on the first compliance date that applies to you. Your taconite iron ore processing plant is a major source of HAP if it emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year.

§ 63.9582 What parts of my plant does this subpart cover?

(a) This subpart applies to each new and existing affected source at your taconite iron ore processing plant.

(b) The affected sources are each new or existing ore crushing and handling operation, ore dryer, indurating furnace, and finished pellet handling operation at your taconite iron ore processing plant, as defined in § 63.9652.

(c) This subpart covers emissions from ore crushing and handling emission units, ore dryer stacks, indurating furnace stacks, finished pellet handling emission units, and fugitive dust emissions.

(d) An ore crushing and handling operation, ore dryer, indurating furnace, or finished pellet handling operation at your taconite iron ore processing plant is existing if you commenced construction or reconstruction of the affected source before December 18, 2002.

(e) An ore crushing and handling operation, ore dryer, indurating furnace, or finished pellet handling operation at your taconite iron ore processing plant is new if you commence construction or reconstruction of the affected source on or after December 18, 2002. An affected source is reconstructed if it meets the definition of reconstruction in § 63.2.

§ 63.9583 When do I have to comply with this subpart?

(a) If you have an existing affected source, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you no later than October 30, 2006.

(b) If you have a new affected source and its initial startup date is on or before October 30, 2003, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you by October 30, 2003.

(c) If you have a new affected source and its initial startup date is after October 30, 2003, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you upon initial startup.

(d) If your taconite iron ore processing plant is an area source that becomes a major source of HAP, the compliance dates in paragraphs (d)(1) and (2) of this section apply to you.

(1) Any portion of the taconite iron ore processing plant that is a new affected source or a new reconstructed source must be in compliance with this subpart upon startup.

(2) All other parts of the taconite iron ore processing plant must be in compliance with this subpart no later than 3 years after the plant becomes a major source.

(e) You must meet the notification and schedule requirements in § 63.9640. Several of these notifications must be submitted before the compliance date for your affected source.

Emission Limitations and Work Practice Standards

§ 63.9590 What emission limitations must I meet?

(a) You must meet each emission limit in Table 1 to this subpart that applies to you.

(b) You must meet each operating limit for control devices in paragraphs (b)(1) through (5) of this section that applies to you.

(1) Except as provided in paragraph (b)(2) of this section, for each wet scrubber applied to meet any particulate matter emission limit in Table 1 to this subpart, you must maintain the daily average pressure drop and daily average scrubber water flow rate at or above the minimum levels established during the initial performance test.

(2) For each dynamic wet scrubber applied to meet any particulate matter emission limit in Table 1 to this subpart, you must maintain the daily average scrubber water flow rate and either the daily average fan amperage (a surrogate for fan speed as revolutions per minute) or the daily average pressure drop at or above the minimum levels established during the initial performance test.

(3) For each dry electrostatic precipitator applied to meet any particulate matter emission limit in Table 1 to this subpart, you must meet the operating limits in paragraph (b)(3)(i) or (ii) of this section.

(i) Maintain the 6-minute average opacity of emissions exiting the control device stack at or below the level

established during the initial performance test.

(ii) Maintain the daily average secondary voltage and daily average secondary current for each field at or above the minimum levels established during the initial performance test.

(4) For each wet electrostatic precipitator applied to meet any particulate matter emission limit in Table 1 to this subpart, you must meet the operating limits in paragraphs (b)(4)(i) through (iii) of this section.

(i) Maintain the daily average secondary voltage for each field at or above the minimum levels established during the initial performance test.

(ii) Maintain the daily average stack outlet temperature at or below the maximum levels established during the initial performance test.

(iii) Maintain the daily average water flow rate at or above the minimum levels established during the initial performance test.

(5) If you use any air pollution control device other than a baghouse, wet scrubber, dynamic scrubber, dry electrostatic precipitator, or wet electrostatic precipitator, you must submit a site-specific monitoring plan in accordance with § 63.9631(f).

(c) You may petition the Administrator for approval of alternatives to the monitoring requirements in paragraphs (b)(1) through (4) of this section as allowed under § 63.8(f) and as defined in § 63.90.

§ 63.9591 What work practice standards must I meet?

(a) You must prepare, and at all times operate according to, a fugitive dust emissions control plan that describes in detail the measures that will be put in place to control fugitive dust emissions from the locations listed in paragraphs (a)(1) through (6) of this section.

(1) Stockpiles (includes, but is not limited to, stockpiles of uncrushed ore, crushed ore, or finished pellets);

(2) Material transfer points;

(3) Plant roadways;

(4) Tailings basin;

(5) Pellet loading areas; and

(6) Yard areas.

(b) A copy of your fugitive dust emissions control plan must be submitted for approval to the Administrator on or before the applicable compliance date for the affected source as specified in § 63.9583. The requirement for the plant to operate according to the fugitive dust emissions control plan must be incorporated by reference in the operating permit for the plant that is issued by the designated permitting authority under 40 CFR part 70 or 40 CFR part 71.

(c) You can use an existing fugitive dust emissions control plan provided it meets the requirements in paragraphs (c)(1) through (3) of this section.

(1) The plan satisfies the requirements of paragraph (a) of this section.

(2) The plan describes the current measures to control fugitive dust emission sources.

(3) The plan has been approved as part of a State implementation plan or title V permit.

(d) You must maintain a current copy of the fugitive dust emissions control plan onsite, and it must be available for inspection upon request. You must keep the plan for the life of the affected source or until the affected source is no longer subject to the requirements of this subpart.

Operation and Maintenance Requirements

§ 63.9600 What are my operation and maintenance requirements?

(a) As required by § 63.6(e)(1)(i), you must always operate and maintain your affected source, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by this subpart.

(b) You must prepare, and at all times operate according to, a written operation and maintenance plan for each control device applied to meet any particulate matter emission limit in Table 1 to this subpart and to meet the requirement of each indurating furnace subject to good combustion practices (GCP). Each site-specific operation and maintenance plan must be submitted to the Administrator on or before the compliance date that is specified in § 63.9583 for your affected source. The plan you submit must explain why the chosen practices (*i.e.*, quantified objectives) are effective in performing corrective actions or GCP in minimizing the formation of formaldehyde (and other products of incomplete combustion). The Administrator will review the adequacy of the site-specific practices and objectives you will follow and the records you will keep to demonstrate compliance with your Plan. If the Administrator determines that any portion of your operation and maintenance plan is not adequate, we can reject those portions of the plan, and request that you provide additional information addressing the relevant issues. In the interim of this process, you will continue to follow your current site-specific practices and objectives, as submitted, until your revisions are accepted as adequate by the Administrator. You must maintain a current copy of the operation and maintenance plan onsite, and it must be available for inspection upon request. You must keep the plan for the life of the affected source or until the affected source is no longer subject to the requirements of this subpart. Each operation and maintenance plan must address the elements in paragraphs (b)(1) through (4) of this section.

(1) Preventative maintenance for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

(2) Corrective action procedures for bag leak detection systems. In the event a bag leak detection system alarm is triggered, you must initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon as practicable. Corrective actions may include, but are not limited to, the actions listed in paragraphs (b)(2)(i) through (vi) of this section.

(i) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.

(ii) Sealing off defective bags or filter media.

(iii) Replacing defective bags or filter media or otherwise repairing the control device.

(iv) Sealing off a defective baghouse compartment.

(v) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.

(vi) Adjusting the process operation producing the particulate emissions.

(3) Corrective action procedures for continuous parameter monitoring systems (CPMS) for all air pollution control devices except for baghouses. In the event you exceed an established operating limit for an air pollution control device except for a baghouse, you must initiate corrective action to determine the cause of the operating limit exceedance and complete the corrective action within 10 calendar days. The corrective action procedures you take must be consistent with the installation, operation, and maintenance procedures listed in your site-specific CPMS monitoring plan in accordance with § 63.9632(b).

(4) Good combustion practices for indurating furnaces. You must identify and implement a set of site-specific GCP for each type of indurating furnace at your plant. These GCP should correspond to your standard operating procedures for maintaining the proper

and efficient combustion within each indurating furnace. Good combustion practices include, but are not limited to, the elements listed in paragraphs (b)(4)(i) through (v) of this section.

(i) Proper operating conditions for each indurating furnace (*e.g.*, minimum combustion temperature, maximum carbon monoxide concentration in the furnace exhaust gases, burner alignment, or proper fuel-air distribution/mixing).

(ii) Routine inspection and preventative maintenance and corresponding schedules of each indurating furnace.

(iii) Performance analyses of each indurating furnace.

(iv) Keeping applicable operator logs.

(v) Keeping applicable records to document compliance with each element.

General Compliance Requirements

§ 63.9610 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the requirements in paragraphs (a)(1) through (6) in this section at all times, except during periods of startup, shutdown, and malfunction. The terms startup, shutdown, and malfunction are defined in § 63.2.

(1) The emission limitations in § 63.9590.

(2) The work practice standards in § 63.9591.

(3) The operation and maintenance requirements in § 63.9600.

(4) The notification requirements in § 63.9640.

(5) The reporting requirements in § 63.9641.

(6) The recordkeeping requirements in § 63.9642.

(b) During the period between the compliance date specified for your affected source in § 63.9583 and the date upon which continuous monitoring systems have been installed and certified and any applicable operating limits have been set, you must maintain a log detailing the operation and maintenance of the process and emissions control equipment. This includes the daily monitoring and recordkeeping of air pollution control device operating parameters as specified in § 63.9590(b).

(c) You must develop and implement a written startup, shutdown, and malfunction plan according to the provisions in § 63.6(e)(3).

Initial Compliance Requirements

§ 63.9620 On which units and by what date must I conduct performance tests or other initial compliance demonstrations?

(a) For each ore crushing and handling affected source, you must demonstrate initial compliance with the emission limits in Table 1 to this subpart by conducting an initial performance test for particulate matter as specified in paragraphs (a)(1) and (2) of this section.

(1) Except as provided in paragraph (e) of this section, an initial performance test must be performed on all stacks associated with ore crushing and handling.

(2) Initial performance tests must be completed no later than 180 calendar days after the compliance date specified in § 63.9583. Performance tests conducted between October 30, 2003 and no later than 180 days after the corresponding compliance date can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of this subpart.

(b) For each indurating furnace affected source, you must demonstrate initial compliance with the emission limits in Table 1 to this subpart by conducting an initial performance test for particulate matter as specified in paragraphs (b)(1) and (2) of this section.

(1) An initial performance test must be performed on all stacks associated with each indurating furnace.

(2) Initial performance tests must be completed no later than 180 calendar days after the compliance date specified in § 63.9583. Performance tests conducted between October 30, 2003 and no later than 180 days after the corresponding compliance date can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of this subpart. For indurating furnaces with multiple stacks, the performance tests for all stacks must be completed within a reasonable period of time, such that the indurating furnace operating characteristics remain representative for the duration of the stack tests.

(c) For each finished pellet handling affected source, you must demonstrate initial compliance with the emission limits in Table 1 to this subpart by conducting an initial performance test for particulate matter as specified in paragraphs (c)(1) and (2) of this section.

(1) Except as provided in paragraph (e) of this section, an initial performance test must be performed on all stacks associated with finished pellet handling.

(2) Initial performance tests must be completed no later than 180 calendar days after the compliance date specified in § 63.9583. Performance tests conducted between October 30, 2003 and no later than 180 days after the corresponding compliance date can be used for initial compliance demonstration, provided the tests meet the initial compliance testing requirements of this subpart.

(d) For each ore dryer affected source, you must demonstrate initial compliance with the emission limits in Table 1 to this subpart by conducting an initial performance test for particulate matter as specified in paragraphs (d)(1) and (2) of this section.

(1) An initial performance test must be performed on all stacks associated with each ore dryer.

(2) Initial performance tests must be completed no later than 180 calendar days after the compliance date specified in § 63.9583. Performance tests conducted between October 30, 2003 and no later than 180 days after the corresponding compliance date can be used for initial compliance demonstration, provided the tests meet the initial compliance testing requirements of this subpart. For ore dryers with multiple stacks, the performance tests for all stacks must be completed within a reasonable period of time, such that the ore dryer operating characteristics remain representative for the duration of the stack tests.

(e) For ore crushing and handling affected sources and finished pellet handling affected sources, in lieu of conducting initial performance tests for particulate matter on all stacks, you may elect to group a maximum of six similar emission units together and conduct an initial compliance test on one representative emission unit within each group of similar emission units. The determination of whether emission units are similar must meet the criteria in paragraph (f) of this section. If you decide to test representative emission units, you must prepare and submit a testing plan as described in paragraph (g) of this section.

(f) If you elect to test representative emission units as provided in paragraph (e) of this section, the units that are grouped together as similar units must meet the criteria in paragraphs (f)(1) through (3) of this section.

(1) All emission units within a group must be of the same process type (*e.g.*, primary crushers, secondary crushers, tertiary crushers, fine crushers, ore conveyors, ore bins, ore screens, grate feed, pellet loadout, hearth layer, cooling stacks, pellet conveyor, and pellet screens). You cannot group

emission units from different process types together for the purposes of this section.

(2) All emission units within a group must also have the same type of air pollution control device (*e.g.*, wet scrubbers, dynamic wet scrubbers, rotoclones, multiclones, wet and dry electrostatic precipitators, and baghouses). You cannot group emission units with different air pollution control device types together for the purposes of this section.

(3) The site-specific operating limits established for the emission unit selected as representative of a group of similar emission units will be used as the operating limit for each emission unit within the group. The operating limit established for the representative unit must be met by each emission unit within the group.

(g) If you plan to conduct initial performance tests on representative emission units within an ore crushing and handling affected source or a finished pellet handling affected source, you must submit a testing plan for initial performance tests. This testing plan must be submitted to the Administrator or delegated authority no later than 90 days prior to the first scheduled initial performance test. The testing plan must contain the information specified in paragraphs (g)(1) through (3) of this section.

(1) A list of all emission units. This list must clearly identify all emission units that have been grouped together as similar emission units. Within each group of emission units, you must identify the emission unit that will be the representative unit for that group and subject to initial performance testing.

(2) A list of the process type and type of air pollution control device on each emission unit.

(3) A schedule indicating when you will conduct an initial performance test for particulate matter for each representative emission unit.

(h) For each work practice standard and operation and maintenance requirement that applies to you where initial compliance is not demonstrated using a performance test, you must demonstrate initial compliance within 30 calendar days after the compliance date that is specified for your affected source in § 63.9583.

(i) If you commenced construction or reconstruction of an affected source between December 18, 2002 and October 30, 2003 , you must demonstrate initial compliance with either the proposed emission limit or the promulgated emission limit no later than 180 calendar days after October 30, 2003 or no later than 180 calendar days after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

(j) If you commenced construction or reconstruction of an affected source between December 18, 2002 and October 30, 2003, and you chose to comply with the proposed emission limit when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limit by 3 years and 180 calendar days after October 30, 2003, or after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

§ 63.9621 What test methods and other procedures must I use to demonstrate initial compliance with the emission limits for particulate matter?

(a) You must conduct each performance test that applies to your affected source according to the requirements in § 63.7(e)(1) and paragraphs (b) and (c) of this section.

(b) For each ore crushing and handling affected source and each finished pellet handling affected source, you must determine compliance with the applicable emission limit for particulate matter in Table 1 to this subpart by following the test methods and procedures in paragraphs (b)(1) through (3) of this section.

(1) Except as provided in § 63.9620(e), determine the concentration of particulate matter in the stack gas for each emission unit according to the test methods in appendix A to part 60 of this chapter. The applicable test methods are listed in paragraphs (b)(1)(i) through (v) of this section.

(i) Method 1 or 1A to select sampling port locations and the number of traverse points. Sampling ports must be located at the outlet of the control device and prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G, as applicable, to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 5, 5D, or 17 to determine the concentration of particulate matter.

(2) Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 2 hours. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of this section.

$$C_i = \frac{C_1 + C_2 + C_3}{3} \qquad \text{(Eq. 1)}$$

Where:

C_i = Average particulate matter concentration for emission unit, grains per dry standard cubic foot, (gr/dscf);

C_1 = Particulate matter concentration for run 1 corresponding to emission unit, gr/dscf;

C_2 = Particulate matter concentration for run 2 corresponding to emission unit, gr/dscf; and

C_3 = Particulate matter concentration for run 3 corresponding to emission unit, gr/dscf.

(3) For each ore crushing and handling affected source and each finished pellet handling affected source, you must determine the flow-weighted mean concentration of particulate matter emissions from all emission units in each affected source following the procedure in paragraph (b)(3)(i) or (ii) of this section.

(i) If an initial performance test is conducted on all emission units within an affected source, calculate the flow-weighted mean concentration of particulate matter emissions from the affected source using Equation 2 of this section.

$$C_a = \frac{\sum_{i=1}^{n} (C_i * Q_i)}{\sum_{i=1}^{n} Q_i} \qquad \text{(Eq. 2)}$$

Where:

C_a = Flow-weighted mean concentration of particulate matter for all emission units within affected source, (gr/dscf);

C_i = Average particulate matter concentration measured during the performance test from emission unit "i" in affected source, as determined using Equation 1 of this section, gr/dscf;

Q_i = Average volumetric flow rate of stack gas measured during the performance test from emission unit "i" in affected source, dscf/hr; and

n = Number of emission units in affected source.

(ii) If you are grouping similar emission units together in accordance with § 63.9620(e), you must follow the procedures in paragraphs (b)(3)(ii)(A) through (C) of this section.

(A) Assign the average particulate matter concentration measured from the representative unit, as determined from Equation 1 of this section, to each emission unit within the corresponding group of similar units.

(B) Establish the maximum operating volumetric flow rate of exhaust gas from each emission unit within each group of similar units.

(C) Using the data from paragraphs (b)(3)(ii)(A) and (B) of this section, calculate the flow-weighted mean concentration of particulate matter

emissions from the affected source using Equation 3 of this section.

$$C_a = \frac{\sum_{k=1}^{m}(C_k * Q_k)}{\sum_{k=1}^{m} Q_k} \quad \text{(Eq. 3)}$$

Where:

C_a = Flow-weighted mean concentration of particulate matter for all emission units within affected source, gr/dscf;

C_k = Average particulate matter concentration measured during the performance test from the representative emission unit in group "k" of affected source "a," as determined using Equation 1 of this section, gr/dscf;

Q_k = Sum of the maximum operating volumetric flow rates of stack gas from all similar emission units within group "k" of affected source, dscf/hr; and

m = Number of similar emission unit groups in affected source.

(c) For each ore dryer affected source and each indurating furnace affected source, you must determine compliance with the applicable emission limit for particulate matter in Table 1 to this subpart by following the test methods and procedures in paragraphs (c)(1) through (3) of this section.

(1) Determine the concentration of particulate matter for each stack according to the test methods in 40 CFR part 60, appendix A. The applicable test methods are listed in paragraphs (c)(1)(i) through (v) of this section.

(i) Method 1 or 1A to select sampling port locations and the number of traverse points. Sampling ports must be located at the outlet of the control device and prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G, as applicable, to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 5, 5D, or 17 to determine the concentration of particulate matter.

(2) Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 2 hours. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of this section.

(3) For each ore dryer and each indurating furnace with multiple stacks, calculate the flow-weighted mean concentration of particulate matter emissions using Equation 4 of this section.

$$C_b = \frac{\sum_{j=1}^{n}(C_j * Q_j)}{\sum_{j=1}^{n} Q_j} \quad \text{(Eq. 4)}$$

Where:

C_b = Flow-weighted mean concentration of particulate matter for all stacks associated with affected source, gr/dscf;

C_j = Average particulate matter concentration measured during the performance test from stack "j" in affected source, as determined using Equation 1 of this section, gr/dscf;

Q_j = Average volumetric flow rate of stack gas measured during the performance test from stack "j" in affected source, dscf/hr;

n = Number of stacks associated with affected source.

§ 63.9622 What test methods and other procedures must I use to establish and demonstrate initial compliance with the operating limits?

(a) For wet scrubbers subject to performance testing in § 63.9620 and operating limits for pressure drop and scrubber water flow rate in § 63.9590(b)(1), you must establish site-specific operating limits according to the procedures in paragraphs (a)(1) through (3) of this section.

(1) Using the CPMS required in § 63.9631(b), measure and record the pressure drop and scrubber water flow rate every 15 minutes during each run of the particulate matter performance test.

(2) Calculate and record the average pressure drop and scrubber water flow rate for each individual test run. Your operating limits are established as the lowest average pressure drop and the lowest average scrubber water flow rate corresponding to any of the three test runs.

(3) If a rod-deck venturi scrubber is applied to an indurating furnace to meet any particulate matter emission limit in Table 1 to this subpart, you may establish a lower average pressure drop operating limit by using historical average pressure drop data from a certified performance test completed on or after December 18, 2002 instead of using the average pressure drop value determined during the initial performance test, as specified in paragraph (a)(2) of this section. If historical average pressure drop data are used to establish an operating limit (*i.e.*, using data from a certified performance test conducted prior to the promulgation date of the final rule), then the average particulate matter concentration corresponding to the historical performance test must be at or below the applicable indurating furnace emission limit, as listed in Table 1 to this subpart.

(b) For dynamic wet scrubbers subject to performance testing in § 63.9620 and operating limits for scrubber water flow rate and either fan amperage or pressure drop in § 63.9590(b)(2), you must establish site-specific operating limits according to the procedures in paragraphs (b)(1) and (2) of this section.

(1) Using the CPMS required in § 63.9631(b), measure and record the scrubber water flow rate and either the fan amperage or pressure drop every 15 minutes during each run of the particulate matter performance test.

(2) Calculate and record the average scrubber water flow rate and either the average fan amperage or average pressure drop for each individual test run. Your operating limits are established as the lowest average scrubber water flow rate and either the lowest average fan amperage or pressure drop value corresponding to any of the three test runs.

(c) For a dry electrostatic precipitator subject to performance testing in § 63.9620 and operating limits in § 63.9590(b)(3), you must establish a site-specific operating limit according to the procedures in paragraphs (c)(1) or (2) of this section.

(1) If the operating limit for your dry electrostatic precipitator is a 6-minute average opacity of emissions value, then you must follow the requirements in paragraphs (c)(1)(i) through (iii) of this section.

(i) Using the continuous opacity monitoring system (COMS) required in § 63.9631(d)(1), measure and record the opacity of emissions from each control device stack during the particulate matter performance test.

(ii) Compute and record the 6-minute opacity averages from 24 or more data points equally spaced over each 6-minute period (*e.g.*, at 15-second intervals) during the test runs.

(iii) Using the opacity measurements from a performance test that meets the emission limit, determine the opacity value corresponding to the 99 percent upper confidence level of a normal distribution of the 6-minute opacity averages.

(2) If the operating limit for your dry electrostatic precipitator is the daily average secondary voltage and daily average secondary current for each field, then you must follow the requirements in paragraphs (c)(2)(i) and (ii) of this section.

(i) Using the CPMS required in § 63.9631(d)(2), measure and record the secondary voltage and secondary current for each dry electrostatic precipitator field every 15 minutes during each run of the particulate matter performance test.

(ii) Calculate and record the average secondary voltage and secondary current for each dry electrostatic precipitator field for each individual test run. Your operating limits are established as the lowest average secondary voltage and secondary current value for each dry electrostatic precipitator field corresponding to any of the three test runs.

(d) For a wet electrostatic precipitator subject to performance testing in § 63.9620 and operating limit in § 63.9590(b)(4), you must establish a site-specific operating limit according to the procedures in paragraphs (d)(1) and (2) of this section.

(1) Using the CPMS required in § 63.9631(e), measure and record the parametric values in paragraphs (d)(1)(i) through (iii) of this section for each wet electrostatic precipitator field every 15 minutes during each run of the particulate matter performance test.

(i) Secondary voltage;

(ii) Water flow rate; and

(iii) Stack outlet temperature.

(2) For each individual test run, calculate and record the average value for each operating parameter in paragraphs (d)(1)(i) through (iii) of this section for each wet electrostatic precipitator field. Your operating limits are established as the lowest average value for each operating parameter corresponding to any of the three test runs.

(e) If you use an air pollution control device other than a wet scrubber, dynamic wet scrubber, dry electrostatic precipitator, wet electrostatic precipitator, or baghouse, and it is subject to performance testing in § 63.9620, you must submit a site-specific monitoring plan in accordance with § 63.9631(f). The site-specific monitoring plan must include the site-specific procedures for demonstrating initial and continuous compliance with the corresponding operating limits.

(f) You may change the operating limits for any air pollution control device as long as you meet the requirements in paragraphs (f)(1) through (3) of this section.

(1) Submit a written notification to the Administrator of your request to conduct a new performance test to revise the operating limit.

(2) Conduct a performance test to demonstrate compliance with the applicable emission limitation in Table 1 to this subpart.

(3) Establish revised operating limits according to the applicable procedures in paragraphs (a) through (e) of this section.

§ 63.9623 How do I demonstrate initial compliance with the emission limitations that apply to me?

(a) For each affected source subject to an emission limit in Table 1 to this subpart, you must demonstrate initial compliance by meeting the emission limit requirements in paragraphs (a)(1) through (4) of this section.

(1) For ore crushing and handling, the flow-weighted mean concentration of particulate matter, determined according to the procedures in §§ 63.9620(a) and 63.9621(b), must not exceed the emission limits in Table 1 to this subpart.

(2) For indurating furnaces, the flow-weighted mean concentration of particulate matter, determined according to the procedures in §§ 63.9620(b) and 63.9621(c), must not exceed the emission limits in Table 1 to this subpart.

(3) For finished pellet handling, the flow-weighted mean concentration of particulate matter, determined according to the procedures in §§ 63.9620(c) and 63.9621(b), must not exceed the emission limits in Table 1 to this subpart.

(4) For ore dryers, the flow-weighted mean concentration of particulate matter, determined according to the procedures in §§ 63.9620(d) and 63.9621(c), must not exceed the emission limits in Table 1 to this subpart.

(b) For each affected source subject to an emission limit in Table 1 to this subpart, you must demonstrate initial compliance by meeting the operating limit requirements in paragraphs (b)(1) through (5) of this section.

(1) For each wet scrubber subject to performance testing in § 63.9620 and operating limits for pressure drop and scrubber water flow rate in § 63.9590(b)(1), you have established appropriate site-specific operating limits and have a record of the pressure drop and scrubber water flow rate measured during the performance test in accordance with § 63.9622(a).

(2) For each dynamic wet scrubber subject to performance testing in § 63.9620 and operating limits for scrubber water flow rate and either fan amperage or pressure drop in § 63.9590(b)(2), you have established appropriate site-specific operating limits and have a record of the scrubber water flow rate and either the fan amperage or pressure drop value, measured during the performance test in accordance with § 63.9622(b).

(3) For each dry electrostatic precipitator subject to performance testing in § 63.9620 and one of the operating limits in § 63.9590(b)(3), you must meet the requirements in paragraph (b)(3)(i) or (ii) of this section.

(i) If you are subject to the operating limit for opacity in § 63.9590(b)(3)(i), you have established appropriate site-specific operating limits and have a record of the opacity measured during the performance test in accordance with § 63.9622(c)(1).

(ii) If you are subject to the operating limit for secondary voltage and secondary current in § 63.9590(b)(3)(ii), you have established appropriate site-specific operating limits and have a record of the secondary voltage and secondary current measured during the performance test in accordance with § 63.9622(c)(2).

(4) For each wet electrostatic precipitator subject to performance testing in § 63.9620 and operating limits for secondary voltage, water flow rate, and stack outlet temperature in § 63.9590(b)(4), you have established appropriate site-specific operating limits and have a record of the secondary voltage, water flow rate, and stack outlet temperature measured during the performance test in accordance with § 63.9622(d).

(5) For other air pollution control devices subject to performance testing in § 63.9620 and operating limits in accordance with § 63.9590(b)(5), you have submitted a site-specific monitoring plan in accordance with § 63.9631(f) and have a record of the site-specific operating limits as measured during the performance test in accordance with § 63.9622(e).

(c) For each emission limitation and operating limit that applies to you, you must submit a notification of compliance status according to § 63.9640(e).

§ 63.9624 How do I demonstrate initial compliance with the work practice standards that apply to me?

You must demonstrate initial compliance with the work practice standards by meeting the requirements in paragraphs (a) through (c) of this section.

(a) You must prepare a fugitive dust emissions control plan in accordance with the requirements in § 63.9591.

(b) You must submit to the Administrator the fugitive dust emissions control plan in accordance with the requirements in § 63.9591.

(c) You must implement each control practice according to the procedures specified in your fugitive dust emissions control plan.

§ 63.9625 How do I demonstrate initial compliance with the operation and maintenance requirements that apply to me?

For each air pollution control device subject to operating limits in § 63.9590(b), you have demonstrated initial compliance if you meet all of the requirements in paragraphs (a) through (d) of this section.

(a) You have prepared the operation and maintenance plan for air pollution control devices in accordance with § 63.9600(b).

(b) You have operated each air pollution control device according to the procedures in the operation and maintenance plan.

(c) You have submitted a notification of compliance status according to the requirements in § 63.9640(e).

(d) You have prepared a site-specific monitoring plan in accordance with § 63.9632(b).

Continuous Compliance Requirements

§ 63.9630 When must I conduct subsequent performance tests?

(a) You must conduct subsequent performance tests to demonstrate continued compliance with the ore crushing and handling emission limits in Table 1 to this subpart according to the schedule developed by your permitting authority and shown in your title V permit. If a title V permit has not been issued, you must submit a testing plan and schedule, containing the information specified in paragraph (e) of this section, to the permitting authority for approval.

(b) You must conduct subsequent performance tests on all stacks associated with indurating furnaces to demonstrate continued compliance with the indurating furnace emission limits in Table 1 to this subpart according to the schedule developed by your permitting authority and shown in your title V permit, but no less frequent than twice per 5-year permit term. If a title V permit has not been issued, you must submit a testing plan and schedule, containing the information specified in paragraph (e) of this section, to the permitting authority for approval. For indurating furnaces with multiple stacks, the performance tests for all stacks associated with that indurating furnace must be conducted within a reasonable period of time, such that the indurating furnace operating characteristics remain representative for the duration of the stack tests.

(c) You must conduct subsequent performance tests to demonstrate continued compliance with the finished pellet handling emission limits in Table 1 to this subpart according to the schedule developed by your permitting authority and shown in your title V permit. If a title V permit has not been issued, you must submit a testing plan and schedule, containing the information specified in paragraph (e) of this section, to the permitting authority for approval.

(d) You must conduct subsequent performance tests on all stacks associated with ore dryers to demonstrate continued compliance with the ore dryer emission limits in Table 1 to this subpart according to the schedule developed by your permitting authority and shown in your title V permit. If a title V permit has not been issued, you must submit a testing plan and schedule, containing the information specified in paragraph (e) of this section, to the permitting authority for approval. For ore dryers with multiple stacks, the performance tests for all stacks associated with an ore dryer must be conducted within a reasonable period of time, such that the ore dryer operating characteristics remain representative for the duration of the stack tests.

(e) If your plant does not have a title V permit, you must submit a testing plan for subsequent performance tests as required in paragraphs (a) through (d) of this section. This testing plan must be submitted to the Administrator on or before the compliance date that is specified in § 63.9583. The testing plan must contain the information specified in paragraphs (e)(1) and (2) of this section. You must maintain a current copy of the testing plan onsite, and it must be available for inspection upon request. You must keep the plan for the life of the affected source or until the affected source is no longer subject to the requirements of this subpart.

(1) A list of all emission units.

(2) A schedule indicating when you will conduct subsequent performance tests for particulate matter for each of the emission units.

§ 63.9631 What are my monitoring requirements?

(a) For each baghouse applied to meet any particulate matter emission limit in Table 1 to this subpart, you must install, operate, and maintain a bag leak detection system to monitor the relative change in particulate matter loadings according to the requirements in § 63.9632(a), and conduct inspections at their specified frequencies according to the requirements in paragraphs (a)(1) through (8) of this section.

(1) Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range.

(2) Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.

(3) Check the compressed air supply of pulse-jet baghouses each day.

(4) Monitor cleaning cycles to ensure proper operation using an appropriate methodology.

(5) Check bag cleaning mechanisms for proper functioning through monthly visual inspections or equivalent means.

(6) Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or lying on their sides. You do not have to make this check for shaker-type baghouses that have self-tensioning (spring-loaded) devices.

(7) Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.

(8) Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.

(b) Except as provided in paragraph (c) of this section, for each wet scrubber subject to the operating limits for pressure drop and scrubber water flow rate in § 63.9590(b)(1), you must install, operate, and maintain a CPMS according to the requirements in § 63.9632(b) through (e) and monitor the daily average pressure drop and daily average scrubber water flow rate according to the requirements in § 63.9633.

(c) For each dynamic wet scrubber subject to the scrubber water flow rate and either the fan amperage or pressure drop operating limits in § 63.9590(b)(2), you must install, operate, and maintain a CPMS according to the requirements in § 63.9632(b) through (e) and monitor the daily average scrubber water flow rate and either the daily average fan amperage or the daily average pressure drop according to the requirements in § 63.9633.

(d) For each dry electrostatic precipitator subject to the operating limits in § 63.9590(b)(3), you must follow the monitoring requirements in paragraph (d)(1) or (2) of this section.

(1) If the operating limit you choose to monitor is the 6-minute average opacity of emissions in accordance with § 63.9590(b)(3)(i), you must install, operate, and maintain a COMS according to the requirements in § 63.9632(f) and monitor the 6-minute average opacity of emissions exiting each control device stack according to the requirements in § 63.9633.

(2) If the operating limit you choose to monitor is average secondary voltage and average secondary current for each dry electrostatic precipitator field in accordance with § 63.9590(b)(3)(ii), you must install, operate, and maintain a CPMS according to the requirements in § 63.9632(b) through (e) and monitor the daily average secondary voltage and daily average secondary current according to the requirements in § 63.9633.

(e) For each wet electrostatic precipitator subject to the operating limits in § 63.9590(b)(4), you must install, operate, and maintain a CPMS according to the requirements in § 63.9632(b) through (e) and monitor the daily average secondary voltage, daily average stack outlet temperature, and daily average water flow rate according to the requirements in § 63.9633.

(f) If you use any air pollution control device other than a baghouse, wet scrubber, dry electrostatic precipitator, or wet electrostatic precipitator, you must submit a site-specific monitoring plan that includes the information in paragraphs (f)(1) through (4) of this section. The monitoring plan is subject to approval by the Administrator. You must maintain a current copy of the monitoring plan onsite, and it must be available for inspection upon request. You must keep the plan for the life of the affected source or until the affected source is no longer subject to the requirements of this subpart.

(1) A description of the device.

(2) Test results collected in accordance with § 63.9621 verifying the performance of the device for reducing emissions of particulate matter to the atmosphere to the levels required by this subpart.

(3) A copy of the operation and maintenance plan required in § 63.9600(b).

(4) Appropriate operating parameters that will be monitored to maintain continuous compliance with the applicable emission limitation(s).

§ 63.9632 What are the installation, operation, and maintenance requirements for my monitoring equipment?

(a) For each negative pressure baghouse or positive pressure baghouse equipped with a stack, applied to meet any particulate emission limit in Table 1 to this subpart, you must install, operate, and maintain a bag leak detection system according to the requirements in paragraphs (a)(1) through (8) of this section.

(1) The system must be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

(2) The system must provide output of relative changes in particulate matter loadings.

(3) The system must be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over the alarm level set point established according to paragraph (a)(4) of this section. The alarm must be located such that it can be heard by the appropriate plant personnel.

(4) For each bag leak detection system, you must develop and submit to the Administrator for approval, a site-specific monitoring plan that addresses the items identified in paragraphs (a)(4)(i) through (v) of this section. For each bag leak detection system that operates based on the triboelectric effect, the monitoring plan shall be consistent with the recommendations contained in the U.S. Environmental Protection Agency (U.S. EPA) guidance document, "Fabric Filter Bag Leak Detection Guidance" (EPA–454/R–98–015). This document is available on the EPA's Technology Transfer Network at *http://www.epa.gov/ttn/emc/cem/tribo.pdf* (Adobe Acrobat version) or *http://www.epa.gov/ttn/emc/cem/tribo.wpd* (WordPerfect version). You must operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. The plan shall describe all of the items in paragraphs (a)(4)(i) through (v) of this section.

(i) Installation of the bag leak detection system.

(ii) Initial and periodic adjustment of the bag leak detection system including how the alarm set-point will be established.

(iii) Operation of the bag leak detection system including quality assurance procedures.

(iv) How the bag leak detection system will be maintained including a routine maintenance schedule and spare parts inventory list.

(v) How the bag leak detection system output shall be recorded and stored.

(5) To make the initial adjustment of the system, establish the baseline output by adjusting the sensitivity (range) and the averaging period of the device. Then, establish the alarm set points and the alarm delay time (if applicable).

(6) Following initial adjustment, do not adjust averaging period, alarm set point, or alarm delay time, without approval from the Administrator except as provided for in paragraph (a)(6)(i) of this section.

(i) Once per quarter, you may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required under paragraph (a)(4) of this section.

(ii) [Reserved]

(7) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(8) The bag leak detector sensor must be installed downstream of the baghouse and upstream of any wet scrubber.

(b) For each CPMS required in § 63.9631, you must develop and make available for inspection upon request by the permitting authority a site-specific monitoring plan that addresses the requirements in paragraphs (b)(1) through (7) of this section.

(1) Installation of the CPMS sampling probe or other interface at a measurement location relative to each affected emission unit such that the measurement is representative of control of the exhaust emissions (*e.g.*, on or downstream of the last control device).

(2) Performance and equipment specifications for the sample interface, the parametric signal analyzer, and the data collection and reduction system.

(3) Performance evaluation procedures and acceptance criteria (*e.g.*, calibrations).

(4) Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1), (3), (4)(ii), (7), and (8).

(5) Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d).

(6) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c), (e)(1), and (e)(2)(i).

(7) Corrective action procedures that you will follow in the event an air pollution control device, except for a baghouse, exceeds an established operating limit as required in § 63.9600(b)(3).

(c) Unless otherwise specified, each CPMS must meet the requirements in paragraphs (c)(1) and (2) of this section.

(1) Each CPMS must complete a minimum of one cycle of operation for each successive 15-minute period and must have valid data for at least 95 percent of every daily averaging period.

(2) Each CPMS must determine and record the daily average of all recorded readings.

(d) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.

(e) You must operate and maintain the CPMS in continuous operation

according to the site-specific monitoring plan.

(f) For each dry electrostatic precipitator subject to the opacity operating limit in § 63.9590(b)(3)(i), you must install, operate, and maintain each COMS according to the requirements in paragraphs (f)(1) through (4) of this section.

(1) You must install each COMS and conduct a performance evaluation of each COMS according to § 63.8 and Performance Specification 1 in appendix B to 40 CFR part 60.

(2) You must develop and implement a quality control program for operating and maintaining each COMS according to § 63.8. At a minimum, the quality control program must include a daily calibration drift assessment, quarterly performance audit, and annual zero alignment of each COMS.

(3) You must operate and maintain each COMS according to § 63.8(e) and your quality control program. You must also identify periods the COMS is out of control, including any periods that the COMS fails to pass a daily calibration drift assessment, quarterly performance audit, or annual zero alignment audit.

(4) You must determine and record the 6-minute average opacity for periods during which the COMS is not out of control.

§ 63.9633 How do I monitor and collect data to demonstrate continuous compliance?

(a) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) at all times an affected source is operating.

(b) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels, or to fulfill a minimum data availability requirement. You must use all the data collected during all other periods in assessing compliance.

(c) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not considered malfunctions.

§ 63.9634 How do I demonstrate continuous compliance with the emission limitations that apply to me?

(a) For each affected source subject to an emission limit in Table 1 to this subpart, you must demonstrate continuous compliance by meeting the requirements in paragraphs (b) through (f) of this section.

(b) For ore crushing and handling affected sources and finished pellet handling affected sources, you must demonstrate continuous compliance by meeting the requirements in paragraphs (b)(1) through (3) of this section.

(1) The flow-weighted mean concentration of particulate matter for all ore crushing and handling emission units and for all finished pellet handling emission units must be maintained at or below the emission limits in Table 1 to this subpart.

(2) You must conduct subsequent performance tests for emission units in the ore crushing and handling and finished pellet handling affected sources following the schedule in your title V permit. If a title V permit has not been issued, you must conduct subsequent performance tests according to a testing plan approved by the Administrator or delegated authority.

(3) For emission units not selected for initial performance testing and defined within a group of similar emission units in accordance with § 63.9620(e), you must calculate the daily average value of each operating parameter for the similar air pollution control device applied to each similar emission unit within a defined group using Equation 1 of this section.

$$P_k = \frac{\sum_{i=1}^{n} P_i}{n} \qquad \text{(Eq. 1)}$$

Where:

P_k = Daily average operating parameter value for all emission units within group "k";

P_i = Daily average parametric monitoring parameter value corresponding to emission unit "i" within group "k"; and

n = Total number of emission units within group, including emission units that have been selected for performance tests and those that have not been selected for performance tests.

(c) For ore dryers and indurating furnaces, you must demonstrate continuous compliance by meeting the requirements in paragraphs (c)(1) and (2) of this section.

(1) The flow-weighted mean concentration of particulate matter for all stacks from the ore dryer or indurating furnace must be maintained at or below the emission limits in Table 1 to this subpart.

(2) For ore dryers, you must conduct subsequent performance tests following the schedule in your title V permit. For indurating furnaces, you must conduct subsequent performance tests following the schedule in your title V permit, but no less frequent than twice per 5-year permit term. If a title V permit has not been issued, you must conduct subsequent performance tests according to a testing plan approved by the Administrator or delegated authority.

(d) For each baghouse applied to meet any particulate emission limit in Table 1 to this subpart, you must demonstrate continuous compliance by completing the requirements in paragraphs (d)(1) and (2) of this section.

(1) Maintaining records of the time you initiated corrective action in the event of a bag leak detection system alarm, the corrective action(s) taken, and the date on which corrective action was completed.

(2) Inspecting and maintaining each baghouse according to the requirements in § 63.9631(a)(1) through (8) and recording all information needed to document conformance with these requirements. If you increase or decrease the sensitivity of the bag leak detection system beyond the limits specified in your site-specific monitoring plan, you must include a copy of the required written certification by a responsible official in the next semiannual compliance report.

(e) Except as provided in paragraph (f) of this section, for each wet scrubber subject to the operating limits for pressure drop and scrubber water flow rate in § 63.9590(b)(1), you must demonstrate continuous compliance by completing the requirements of paragraphs (e)(1) through (4) of this section.

(1) Maintaining the daily average pressure drop and daily average scrubber water flow rate at or above the minimum levels established during the initial or subsequent performance test.

(2) Operating and maintaining each wet scrubber CPMS according to § 63.9632(b) and recording all information needed to document conformance with these requirements.

(3) Collecting and reducing monitoring data for pressure drop and scrubber water flow rate according to § 63.9632(c) and recording all information needed to document conformance with these requirements.

(4) If the daily average pressure drop or daily average scrubber water flow rate is below the operating limits established for a corresponding emission unit or group of similar emission units, you must then follow the corrective action

procedures in paragraph (j) of this section.

(f) For each dynamic wet scrubber subject to the operating limits for scrubber water flow rate and either the fan amperage or pressure drop in § 63.9590(b)(2), you must demonstrate continuous compliance by completing the requirements of paragraphs (f)(1) through (4) of this section.

(1) Maintaining the daily average scrubber water flow rate and either the daily average fan amperage or the daily average pressure drop at or above the minimum levels established during the initial or subsequent performance test.

(2) Operating and maintaining each dynamic wet scrubber CPMS according to § 63.9632(b) and recording all information needed to document conformance with these requirements.

(3) Collecting and reducing monitoring data for scrubber water flow rate and either fan amperage or pressure drop according to § 63.9632(c) and recording all information needed to document conformance with these requirements.

(4) If the daily average scrubber water flow rate, daily average fan amperage, or daily average pressure drop is below the operating limits established for a corresponding emission unit or group of similar emission units, you must then follow the corrective action procedures in paragraph (j) of this section.

(g) For each dry electrostatic precipitator subject to operating limits in § 63.9590(b)(3), you must demonstrate continuous compliance by completing the requirements of paragraph (g)(1) or (2) of this section.

(1) If the operating limit for your dry electrostatic precipitator is a 6-minute average opacity of emissions value, then you must follow the requirements in paragraphs (g)(1)(i) through (iii) of this section.

(i) Maintaining the 6-minute average opacity of emissions at or below the maximum level established during the initial or subsequent performance test.

(ii) Operating and maintaining each COMS and reducing the COMS data according to § 63.9632(f).

(iii) If the 6-minute average opacity of emissions is above the operating limits established for a corresponding emission unit, you must then follow the corrective action procedures in paragraph (j) of this section.

(2) If the operating limit for your dry electrostatic precipitator is the daily average secondary voltage and daily average secondary current for each field, then you must follow the requirements in paragraphs (g)(2)(i) through (iv) of this section.

(i) Maintaining the daily average secondary voltage or daily average secondary current for each field at or above the minimum levels established during the initial or subsequent performance test.

(ii) Operating and maintaining each dry electrostatic precipitator CPMS according to § 63.9632(b) and recording all information needed to document conformance with these requirements.

(iii) Collecting and reducing monitoring data for secondary voltage or secondary current for each field according to § 63.9632(c) and recording all information needed to document conformance with these requirements.

(iv) If the daily average secondary voltage or daily average secondary current for each field is below the operating limits established for a corresponding emission unit, you must then follow the corrective action procedures in paragraph (j) of this section.

(h) For each wet electrostatic precipitator subject to the operating limits for secondary voltage, stack outlet temperature, and water flow rate in § 63.9590(b)(4), you must demonstrate continuous compliance by completing the requirements of paragraphs (h)(1) through (4) of this section.

(1) Maintaining the daily average secondary voltage, daily average secondary current, and daily average scrubber water flow rate for each field at or above the minimum levels established during the initial or subsequent performance test. Maintaining the daily average stack outlet temperature at or below the maximum levels established during the initial or subsequent performance test.

(2) Operating and maintaining each wet electrostatic precipitator CPMS according to § 63.9632(b) and recording all information needed to document conformance with these requirements.

(3) Collecting and reducing monitoring data for secondary voltage, stack outlet temperature, and water flow rate according to § 63.9632(c) and recording all information needed to document conformance with these requirements.

(4) If the daily average secondary voltage, stack outlet temperature, or water flow rate does not meet the operating limits established for a corresponding emission unit, you must then follow the corrective action procedures in paragraph (j) of this section.

(i) If you use an air pollution control device other than a wet scrubber, dynamic wet scrubber, dry electrostatic precipitator, wet electrostatic precipitator, or baghouse, you must submit a site-specific monitoring plan in accordance with § 63.9631(f). The site-specific monitoring plan must include the site-specific procedures for demonstrating initial and continuous compliance with the corresponding operating limits.

(j) If the daily average operating parameter value for an emission unit or group of similar emission units does not meet the corresponding established operating limit, you must then follow the procedures in paragraphs (j)(1) through (4) of this section.

(1) You must initiate and complete initial corrective action within 10 calendar days and demonstrate that the initial corrective action was successful. During any period of corrective action, you must continue to monitor and record all required operating parameters for equipment that remains in operation. After 10 calendar days, measure and record the daily average operating parameter value for the emission unit or group of similar emission units on which corrective action was taken. After the initial corrective action, if the daily average operating parameter value for the emission unit or group of similar emission units meets the operating limit established for the corresponding unit or group, then the corrective action was successful and the emission unit or group of similar emission units is in compliance with the established operating limits.

(2) If the initial corrective action required in paragraph (j)(1) of this section was not successful, then you must complete additional corrective action within 10 calendar days and demonstrate that the subsequent corrective action was successful. During any period of corrective action, you must continue to monitor and record all required operating parameters for equipment that remains in operation. After the second set of 10 calendar days allowed to implement corrective action, you must again measure and record the daily average operating parameter value for the emission unit or group of similar emission units. If the daily average operating parameter value for the emission unit or group of similar emission units meets the operating limit established for the corresponding unit or group, then the corrective action was successful and the emission unit or group of similar emission units is in compliance with the established operating limits.

(3) If the second attempt at corrective action required in paragraph (j)(2) of this section was not successful, then you must repeat the procedures of paragraph (j)(2) of this section until the corrective action is successful. If the

third attempt at corrective action is unsuccessful, you must conduct another performance test in accordance with the procedures in § 63.9622(f) and report to the Administrator as a deviation the third unsuccessful attempt at corrective action.

(4) After the third unsuccessful attempt at corrective action, you must submit to the Administrator the written report required in paragraph (j)(3) of this section within 5 calendar days after the third unsuccessful attempt at corrective action. This report must notify the Administrator that a deviation has occurred and document the types of corrective measures taken to address the problem that resulted in the deviation of established operating parameters and the resulting operating limits.

§ 63.9635 How do I demonstrate continuous compliance with the work practice standards that apply to me?

(a) You must demonstrate continuous compliance with the work practice standard requirements in § 63.9591 by operating in accordance with your fugitive dust emissions control plan at all times.

(b) You must maintain a current copy of the fugitive dust emissions control plan required in § 63.9591 onsite and it must be available for inspection upon request. You must keep the plan for the life of the affected source or until the affected source is no longer subject to the requirements of this subpart.

§ 63.9636 How do I demonstrate continuous compliance with the operation and maintenance requirements that apply to me?

(a) For each control device subject to an operating limit in § 63.9590(b), you must demonstrate continuous compliance with the operation and maintenance requirements in § 63.9600(b) by completing the requirements of paragraphs (a)(1) through (4) of this section.

(1) Performing preventative maintenance for each control device in accordance with § 63.9600(b)(1) and recording all information needed to document conformance with these requirements;

(2) Initiating and completing corrective action for a bag leak detection system alarm in accordance with § 63.9600(b)(2) and recording all information needed to document conformance with these requirements;

(3) Initiating and completing corrective action for a CPMS when you exceed an established operating limit for an air pollution control device except for a baghouse in accordance with § 63.9600(b)(3) and recording all information needed to document conformance with these requirements; and

(4) Implementing and maintaining site-specific good combustion practices for each indurating furnace in accordance with § 63.9600(b)(4) and recording all information needed to document conformance with these requirements.

(b) You must maintain a current copy of the operation and maintenance plan required in § 63.9600(b) onsite, and it must be available for inspection upon request. You must keep the plan for the life of the affected source or until the affected source is no longer subject to the requirements of this subpart.

§ 63.9637 What other requirements must I meet to demonstrate continuous compliance?

(a) *Deviations.* You must report each instance in which you did not meet each emission limitation in Table 1 to this subpart that applies to you. This includes periods of startup, shutdown, and malfunction in accordance with paragraph (b) of this section. You also must report each instance in which you did not meet the work practice standards in § 63.9591 and each instance in which you did not meet each operation and maintenance requirement in § 63.9600 that applies to you. These instances are deviations from the emission limitations, work practice standards, and operation and maintenance requirements in this subpart. These deviations must be reported in accordance with the requirements in § 63.9641.

(b) *Startups, shutdowns, and malfunctions.* During periods of startup, shutdown, and malfunction, you must operate in accordance with your startup, shutdown, and malfunction plan and the requirements in paragraphs (b)(1) and (2) of this section.

(1) Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the startup, shutdown, and malfunction plan.

(2) The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in § 63.6(e).

Notifications, Reports, and Records

§ 63.9640 What notifications must I submit and when?

(a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (h) that apply to you by the specified dates.

(b) As specified in § 63.9(b)(2), if you start up your affected source before October 30, 2003, you must submit your initial notification no later than 120 calendar days after October 30, 2003.

(c) As specified in § 63.9(b)(3), if you start up your new affected source on or after October 30, 2003, you must submit your initial notification no later than 120 calendar days after you become subject to this subpart.

(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin, as required in § 63.7(b)(1).

(e) If you are required to conduct a performance test or other initial compliance demonstration, you must submit a notification of compliance status according to § 63.9(h)(2)(ii). The initial notification of compliance status must be submitted by the dates specified in paragraphs (e)(1) and (2) of this section.

(1) For each initial compliance demonstration that does not include a performance test, you must submit the notification of compliance status before the close of business on the 30th calendar day following completion of the initial compliance demonstration.

(2) For each initial compliance demonstration that does include a performance test, you must submit the notification of compliance status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to § 63.10(d)(2).

§ 63.9641 What reports must I submit and when?

(a) *Compliance report due dates.* Unless the Administrator has approved a different schedule, you must submit a semiannual compliance report to your permitting authority according to the requirements in paragraphs (a)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.9583 and ending on June 30 or December 31, whichever date comes first after the compliance date that is specified for your source in § 63.9583.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after your first compliance report is due.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through

June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (a)(1) through (4) of this section.

(b) *Compliance report contents.* Each compliance report must include the information in paragraphs (b)(1) through (3) of this section and, as applicable, in paragraphs (b)(4) through (8) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with the official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in § 63.10(d)(5)(i).

(5) If there were no deviations from the continuous compliance requirements in §§ 63.9634 through 63.9636 that apply to you, then provide a statement that there were no deviations from the emission limitations, work practice standards, or operation and maintenance requirements during the reporting period.

(6) If there were no periods during which a continuous monitoring system (including a CPMS or COMS) was out-of-control as specified in § 63.8(c)(7), then provide a statement that there were no periods during which a continuous monitoring system was out-of-control during the reporting period.

(7) For each deviation from an emission limitation in Table 1 to this subpart that occurs at an affected source where you are not using a continuous monitoring system (including a CPMS or COMS) to comply with an emission limitation in this subpart, the compliance report must contain the information in paragraphs (b)(1) through (4) of this section and the information in paragraphs (b)(7)(i) and (ii) of this section. This includes periods of startup, shutdown, and malfunction.

(i) The total operating time of each affected source during the reporting period.

(ii) Information on the number, duration, and cause of deviations (including unknown cause) as applicable, and the corrective action taken.

(8) For each deviation from an emission limitation occurring at an affected source where you are using a continuous monitoring system (including a CPMS or COMS) to comply with the emission limitation in this subpart, you must include the information in paragraphs (b)(1) through (4) of this section and the information in paragraphs (b)(8)(i) through (xi) of this section. This includes periods of startup, shutdown, and malfunction.

(i) The date and time that each malfunction started and stopped.

(ii) The date and time that each continuous monitoring system was inoperative, except for zero (low-level) and high-level checks.

(iii) The date, time, and duration that each continuous monitoring system was out-of-control, including the information in § 63.8(c)(8).

(iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(v) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(vi) A breakdown of the total duration of the deviations during the reporting period including those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(vii) A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period.

(viii) A brief description of the process units.

(ix) A brief description of the continuous monitoring system.

(x) The date of the latest continuous monitoring system certification or audit.

(xi) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.

(c) *Immediate startup, shutdown, and malfunction report.* If you had a startup, shutdown, or malfunction during the semiannual reporting period that was not consistent with your startup, shutdown, and malfunction plan, you must submit an immediate startup, shutdown, and malfunction report according to the requirements in § 63.10(d)(5)(ii).

(d) *Part 70 monitoring report.* If you have obtained a title V operating permit for an affected source pursuant to 40 CFR part 70 or 40 CFR part 71, you must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If you submit a compliance report for an affected source along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all the required information concerning deviations from any emission limitation or operation and maintenance requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements for an affected source to your permitting authority.

(e) *Immediate corrective action report.* If you had three unsuccessful attempts of applying corrective action as described in § 63.9634(j) on an emission unit or group of emission units, then you must submit an immediate corrective action report. Within 5 calendar days after the third unsuccessful attempt at corrective action, you must submit to the Administrator a written report in accordance with § 63.9634(j)(3) and (4). This report must notify the Administrator that a deviation has occurred and document the types of corrective measures taken to address the problem that resulted in the deviation of established operating parameters and the resulting operating limits.

§ 63.9642 What records must I keep?

(a) You must keep the records listed in paragraphs (a)(1) through (3) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or notification of compliance status that you submitted, according to the requirements in § 63.10(b)(2)(xiv).

(2) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests and performance evaluations as required in § 63.10(b)(2)(viii).

(b) For each COMS, you must keep the records specified in paragraphs (b)(1) through (4) of this section.

(1) Records described in § 63.10(b)(2)(vi) through (xi).

(2) Monitoring data for COMS during a performance evaluation as required in § 63.6(h)(7)(i) and (ii).

(3) Previous (that is, superceded) versions of the performance evaluation plan as required in § 63.8(d)(3).

(4) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(c) You must keep the records required in §§ 63.9634 through 63.9636 to show continuous compliance with each emission limitation, work practice standard, and operation and maintenance requirement that applies to you.

§ 63.9643 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1).

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to § 63.10(b)(1). You can keep the records offsite for the remaining 3 years.

Other Requirements and Information

§ 63.9650 What parts of the General Provisions apply to me?

Table 2 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

§ 63.9651 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the EPA, or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of the EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of non-opacity emission limitations and work practice standards under § 63.6(h)(9) and as defined in § 63.90.

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.9652 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, in § 63.2, and in this section as follows.

Affected source means each new or existing ore crushing and handling operation, ore dryer, indurating furnace, or finished pellet handling operation, at your taconite iron ore processing plant.

Bag leak detection system means a system that is capable of continuously monitoring relative particulate matter (dust) loadings in the exhaust of a baghouse to detect bag leaks and other upset conditions. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other effect to continuously monitor relative particulate matter loadings.

Conveyor belt transfer point means a point in the conveying operation where the taconite ore or taconite pellets are transferred to or from a conveyor belt, except where the taconite ore or taconite pellets are being transferred to a bin or stockpile.

Crusher means a machine used to crush taconite ore and includes feeders or conveyors located immediately below the crushing surfaces. Crushers include, but are not limited to, gyratory crushers and cone crushers.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation (including operating limits) or operation and maintenance requirement;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Dynamic wet scrubber means an air emissions control device which utilizes a mechanically powered fan to cause contact between the process exhaust gas stream and the scrubbing liquid which are introduced concurrently into the fan inlet.

Emission limitation means any emission limit, opacity limit, or operating limit.

Finished pellet handling means the transfer of fired taconite pellets from the indurating furnace to the finished pellet stockpiles at the plant. Finished pellet handling includes, but is not limited to, furnace discharge or grate discharge, and finished pellet screening, transfer, and storage. The atmospheric pellet cooler vent stack and gravity conveyor gallery vents designed to remove heat and water vapor from the structure are not included as a part of the finished pellet handling affected source.

Fugitive dust emission source means a stationary source from which particles are discharged to the atmosphere due to wind or mechanical inducement such as vehicle traffic. Fugitive dust sources include, but are not limited to:

(1) Stockpiles (includes, but is not limited to, stockpiles of uncrushed ore, crushed ore, or finished pellets);

(2) Material transfer points;

(3) Plant roadways;

(4) Tailings basins;

(5) Pellet loading areas; and

(6) Yard areas.

Grate feed means the transfer of unfired taconite pellets from the pelletizer into the indurating furnace.

Grate kiln indurating furnace means a furnace system that consists of a traveling grate, a rotary kiln, and an annular cooler. The grate kiln indurating furnace begins at the point where the grate feed conveyor discharges the green balls onto the furnace traveling grate and ends where the hardened pellets exit the cooler. The atmospheric pellet cooler vent stack is not included as part of the grate kiln indurating furnace.

Indurating means the process whereby unfired taconite pellets, called green balls, are hardened at high

temperature in an indurating furnace. Types of indurating furnaces include straight grate indurating furnaces and grate kiln indurating furnaces.

Ore crushing and handling means the process whereby dry taconite ore is crushed and screened. Ore crushing and handling includes, but is not limited to, all dry crushing operations (*e.g.*, primary, secondary, and tertiary crushing), dry ore conveyance and transfer points, dry ore classification and screening, dry ore storage and stockpiling, dry milling, dry cobbing (*i.e.*, dry magnetic separation), and the grate feed. Ore crushing and handling specifically excludes any operations where the dry crushed ore is saturated with water, such as wet milling and wet magnetic separation.

Ore dryer means a rotary dryer that repeatedly tumbles wet taconite ore concentrate through a heated air stream to reduce the amount of entrained moisture in the taconite ore concentrate.

Pellet cooler vent stacks means atmospheric vents in the cooler section of the grate kiln indurating furnace that exhaust cooling air that is not returned for recuperation. Pellet cooler vent stacks are not to be confused with the cooler discharge stack, which is in the pellet loadout or dumping area.

Pellet loading area means that portion of a taconite iron ore processing plant where taconite pellets are loaded into trucks or railcars.

Responsible official means responsible official as defined in § 63.2.

Rod-deck venturi scrubber means a wet scrubber emission control device in which the inlet air flows through a bed of parallel metal pipes spaced apart to produce a series of parallel venturi throats.

Screen means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series and retaining oversize material on the mesh surfaces (screens).

Storage bin means a facility for storage (including surge bins and hoppers) of taconite ore or taconite pellets prior to further processing or loading.

Straight grate indurating furnace means a furnace system that consists of a traveling grate that carries the taconite pellets through different furnace temperature zones. In the straight grate indurating furnace a layer of fired pellets, called the hearth layer, is placed on the traveling grate prior to the addition of unfired pellets. The straight grate indurating furnace begins at the point where the grate feed conveyor discharges the green balls onto the furnace traveling grate and ends where the hardened pellets drop off of the traveling grate.

Taconite iron ore processing means the separation and concentration of iron ore from taconite, a low-grade iron ore, to produce taconite pellets.

Taconite ore means a low-grade iron ore suitable for concentration of magnetite or hematite by fine grinding and magnetic or flotation treatment, from which pellets containing iron can be produced.

Tailings basin means a natural or artificial impoundment in which gangue or other refuse material resulting from the washing, concentration or treatment of ground taconite iron ore is confined.

Wet grinding and milling means the process whereby wet taconite ore is finely ground using rod and/or ball mills.

Tables to Subpart RRRRR of Part 63

As required in § 63.9590(a), you must comply with each applicable emission limit in the following table:

TABLE 1 TO SUBPART RRRRR OF PART 63.—EMISSION LIMITS

If your affected source is . . .	and the affected source is categorized as . . .	then you must comply with the flow-weighted mean concentration of particulate matter discharged to the atmosphere from the affected source, as determined using the procedures in § 63.9621(b), such that you must not exceed . . .
1. Ore crushing and handling emission units	Existing	0.008 grains per dry standard cubic foot (gr/dscf).
	New	0.005 gr/dscf.
2. Straight grate indurating furnace processing magnetite	Existing	0.01 gr/dscf.
	New	0.006 gr/dscf.
3. Grate kiln indurating furnace processing magnetite	Existing	0.01 gr/dscf.
	New	0.006 gr/dscf.
4. Grate kiln indurating furnace processing hematite	Existing	0.03 gr/dscf.
	New	0.018 gr/dscf.
5. Finished pellet handling emission units	Existing	0.008 gr/dscf.
	New	0.005 gr/dscf.
6. Ore dryer	Existing	0.052 gr/dscf.
	New	0.025 gr/dscf.

As required in § 63.9650, you must comply with the requirements of the NESHAP General Provisions (40 CFR part 63, subpart A) shown in the following table:

TABLE 2 TO SUBPART RRRRR OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART RRRRR OF PART 63

Citation	Subject	Applies to Subpart RRRRR	Explanation
§ 63.1	Applicability	Yes.	
§ 63.2	Definitions	Yes.	
§ 63.3	Units and Abbreviations	Yes.	
§ 63.4	Prohibited Activities	Yes.	
§ 63.5	Construction/Reconstruction	Yes.	

TABLE 2 TO SUBPART RRRRR OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS—Continued TO SUBPART RRRRR OF PART 63

Citation	Subject	Applies to Subpart RRRRR	Explanation
§ 63.6(a)–(g)	Compliance With Standards and Maintenance Requirements.	Yes.	
§ 63.6(h)	Compliance With Opacity and Visible Emission (VE) Standards.	No	Subpart RRRRR does not contain opacity and VE standards.
§ 63.6(i), (j)	Extension of Compliance and Presidential Compliance Extension.	Yes.	
§ 63.7(a)(1)–(2)	Applicability and Performance Test Dates.	No	Subpart RRRRR specifies performance test applicability and dates.
§ 63.7(a)(3), (b)–(h)	Performance Testing Requirements ..	Yes.	
§ 63.8(a)(1)–(a)(3), (b), (c)(1)–(3), (c)(5)–(8), (d), (e), (f)(1)–(5), (g)(1)–(4).	Monitoring Requirements	Yes	Continuous monitoring system (CMS) requirements in § 63.8(c)(5) and (6) apply only to COMS for dry electrostatic precipitators.
§ 63.8(a)(4)	Additional Monitoring Requirements for Control Devices in § 63.11.	No	Subpart RRRRR does not require flares.
§ 63.8(c)(4)	Continuous Monitoring System Requirements.	No	Subpart RRRRR specifies requirements for operation of CMS.
§ 63.8(f)(6)	Relative Accuracy Test Alternative (RATA).	No	Subpart RRRRR does not require continuous emission monitoring systems.
§ 63.8(g)(5)	Data Reduction	No	Subpart RRRRR specifies data reduction requirements.
§ 63.9	Notification Requirements	Yes	Additional notifications for CMS in § 63.9(g) apply to COMS for dry electrostatic precipitators.
§ 63.10(a), (b)(1)–(2)(xii), (b)(2)(xiv), (b)(3), (c)(1)–(6), (c)(9)–(15), (d)(1)–(2), (d)(4)–(5), (e), (f).	Recordkeeping and Reporting Requirements.	Yes	Additional records for CMS in § 63.10(c)(1)–(6), (9)–(15), and reports in § 63.10(d)(1)–(2) apply only to COMS for dry electrostatic precipitators.
§ 63.10(b)(2)(xiii)	CMS Records for RATA Alternative ...	No	Subpart RRRRR doesn't require continuous emission monitoring systems.
§ 63.10(c)(7)–(8)	Records of Excess Emissions and Parameter Monitoring Exceedances for CMS.	No	Subpart RRRRR specifies record requirements.
§ 63.10(d)(3)	Reporting opacity or VE observations	No	Subpart RRRRR does not have opacity and VE standards.
§ 63.11	Control Device Requirements	No	Subpart RRRRR does not require flares.
§ 63.12	State Authority and Delegations	Yes.	
§ 63.13–§ 63.15	Addresses, Incorporation by Reference, Availability of Information.	Yes.	

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November 10, 2003

Part II

Environmental Protection Agency

40 CFR Part 63
National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[Docket ID No. OAR–2003–0121; FRL–7551–3]

RIN 2060–AE82

National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national emission standards for hazardous air pollutants (NESHAP) for miscellaneous organic chemical manufacturing facilities. The final rule establishes emission limits and work practice standards for new and existing miscellaneous organic chemical manufacturing process units, wastewater treatment and conveyance systems, transfer operations, and associated ancillary equipment and implements section 112(d) of the Clean Air Act (CAA) by requiring all major sources to meet hazardous air pollutants (HAP) emission standards reflecting application of the maximum achievable control technology (MACT). The HAP emitted from miscellaneous organic chemical manufacturing facilities include toluene, methanol, xylene, hydrogen chloride, and methylene chloride. Exposure to these substances has been demonstrated to cause adverse health effects such as irritation of the lung, eye, and mucous membranes, effects on the central nervous system, and cancer. We do not have the type of current detailed data on each of the facilities and the people living around the facilities covered by the final rule for this source category that would be necessary to conduct an analysis to determine the actual population exposures to the HAP emitted from these facilities and the potential for resultant health effects. Therefore, we do not know the extent to which the adverse health effects described above occur in the populations surrounding these facilities. However, to the extent the adverse effects do occur, and the final rule reduces emissions, subsequent exposures will be reduced. The final rule will reduce HAP emissions by 16,800 tons per year for existing facilities that manufacture miscellaneous organic chemicals.

DATES: This rule is effective November 10, 2003.

ADDRESSES: Docket No. OAR–2003–0121 and A–96–04 are located at the Environmental Protection Agency, Office of Air & Radiation Docket & Information Center (6102T), 1301 Constitution Avenue, NW., Room B108, Washington, DC 20460.

FOR FURTHER INFORMATION CONTACT: Mr. Randy McDonald, Organic Chemicals Group (C504–04), Emission Standards Division, U.S. EPA, Research Triangle Park, NC 27711; telephone number (919) 541–5402; electronic mail (e-mail) address *mcdonald.randy@epa.gov.*

SUPPLEMENTARY INFORMATION: *Regulated Entities.* Categories and entities potentially regulated by this action include:

Category	NAICS*	Examples of regulated entities
Industry	3251, 3252, 3253, 3254, 3255, 3256, and 3259, with several exceptions..	Producers of specialty organic chemicals, explosives, certain polymers and resins, and certain pesticide intermediates.

*North American Industry Classification System.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your facility is regulated by this action, you should examine the applicability criteria in § 63.2435 of the final rule. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Docket. We have established official public dockets for this action under Docket ID No. OAR–2003–0121 and A–96–04. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. All items may not be listed under both docket numbers, so interested parties should inspect both docket numbers to ensure that they have received all materials relevant to the final rule. Although a part of the official docket, the public docket does not include confidential business information (CBI) or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the Air and Radiation Docket in the EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Avenue, NW., Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566–1744, and the telephone number for the Air Docket Center is (202) 566–1742. A reasonable fee may be charged for copying docket materials.

Electronic Access. You may access this **Federal Register** document electronically through the EPA Internet under the **Federal Register** listings at *http://www.epa.gov/fedrgstr/.* An electronic version of the public docket also is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Portions of the docket materials are available electronically through Docket ID No. OAR–2003–0121. Once in the system, select "search," then key in the appropriate docket identification number. You may still access publicly available docket materials through the Docket ID No. A–96–04.

Worldwide Web (WWW). In addition to being available in the docket, an electronic copy of the final rule will also be available on the WWW through the Technology Transfer Network (TTN). Following signature, a copy of the rule will be placed on the TTN's policy and guidance page for newly proposed or promulgated rules at *http://www.epa.gov/ttn/oarpg.* The TTN provides information and technology exchange in various areas of air pollution control. If more information regarding the TTN is needed, call the TTN HELP line at (919) 541–5384.

Judicial Review. Under CAA section 307(b)(1) of the CAA, judicial review of the final NESHAP is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit January 9, 2004. Under section 307(d)(7)(B) of the CAA, only an objection to a rule or procedure raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under CAA section 307(b)(2) of the CAA, the requirements

established by the final rule may not be challenged separately in civil or criminal proceedings brought to enforce these requirements.

Background Information Document. The EPA proposed the NESHAP for miscellaneous organic chemical manufacturing on April 4, 2002 (67 FR 16154), and received 53 comment letters on the proposal. A background information document (BID) ("National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Miscellaneous Organic Chemical Manufacturing Industry, Summary of Public Comments and Responses,") containing EPA's responses to each public comment is available in Docket ID No. OAR–2003–0121.

Outline. The information presented in this preamble is organized as follows:

I. Background
A. What is the source of authority for development of NESHAP?
B. What criteria are used in the development of NESHAP?
C. What is the history of the source categories?
D. What are the health effects associated with the pollutants emitted from miscellaneous organic chemical manufacturing?
E. How did we develop the final rule?
II. Summary of the Final Rule
A. What are the affected sources and emission points?
B. What are the emission limitations and work practice standards?
C. What are the testing and initial compliance requirements?
D. What are the continuous compliance requirements?
E. What are the notification, recordkeeping, and reporting requirements?
III. Summary of Environmental, Energy, and Economic Impacts
A. What are the air emission reduction impacts?
B. What are the cost impacts?
C. What are the economic impacts?
D. What are the non-air health, environmental, and energy impacts?
IV. Summary of Responses to Major Comments
A. What changes to applicability did the commenters suggest?
B. How did we change the compliance dates?
C. How did we develop the standards?
D. Standards for Process Vents
E. Storage Tank Standards
F. Standards for Wastewater Systems
G. Standards for Equipment Leaks
H. Standards for Transfer Racks
I. Pollution Prevention
J. Initial Compliance
K. Ongoing Compliance
L. Recordkeeping and Reporting
M. Startup, Shutdown, and Malfunction
N. Change Management
O. Overlapping Requirements
V. Statutory and Executive Order Reviews
A. Executive Order 12866: Regulatory Planning and Review
B. Paperwork Reduction Act
C. Regulatory Flexibility Act
D. Unfunded Mandates Reform Act
E. Executive Order 13132: Federalism
F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments
G. Executive Order 13045: Protection of Children from Environmental Health and Safety Risks
H. Executive Order 13211: Actions that Significantly Affect Energy Supply, Distribution, or Use
I. National Technology Transfer Advancement Act
J. Congressional Review Act

I. Background

A. What Is the Source of Authority for Development of NESHAP?

Section 112 of the CAA requires us to list categories and subcategories of major sources and some area sources of HAP and to establish NESHAP for the listed source categories and subcategories. A major source of HAP is a stationary source or group of stationary sources located within a contiguous area under common control that has the potential to emit greater than 9.1 megagrams per year (Mg/yr) (10 tons per year (tpy)) of any one HAP or 22.7 Mg/yr (25 tpy) of any combination of HAP.

B. What Criteria Are Used in the Development of NESHAP?

Section 112 of the CAA requires that we establish NESHAP for the control of HAP from both new and existing major sources. The CAA requires the NESHAP to reflect the maximum degree of reduction in emissions of HAP that is achievable, taking into consideration the cost of achieving the emissions reductions, any non-air quality health and environmental impacts, and energy requirements. This level of control is commonly referred to as MACT.

The MACT floor is the minimum control level allowed for NESHAP and is defined under section 112(d)(3) of the CAA. In essence, the MACT floor ensures that all major sources achieve the level of control already achieved by the better-controlled and lower-emitting sources in each source category or subcategory. For new sources, the MACT floor cannot be less stringent than the emission control that is achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than standards for new sources, but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources (or the best-performing five sources for categories or subcategories with fewer than 30 sources).

In developing MACT, we also consider control options that are more stringent than the floor. In considering whether to establish standards more stringent than the floor, we must consider cost, non-air quality health and environmental impacts, and energy requirements.

C. What Is the History of the Source Categories?

Section 112 of the CAA requires us to establish rules for categories of emission sources that emit HAP. On July 16, 1992, we published an initial list of 174 source categories to be regulated (57 FR 31576). The listing was our best attempt to identify major sources of HAP by manufacturing category. Following the publication of that listing, we published a schedule for the promulgation of emission standards for each of the 174 listed source categories. At the time the initial list was published, we recognized that we might have to revise the list from time to time as better information became available.

Based on information we collected in 1995, we realized that several of the original source categories on the list had similar process equipment, emission characteristics and applicable control technologies. Additionally, many of these source categories were on the same schedule for promulgation, by November 15, 2000. Therefore, we decided to combine a number of source categories from the original listing into one broad set of emission standards. Today's final rule reflects the subsumption of the following source categories into a new source category called Miscellaneous Organic Chemical Manufacturing: benzyltrimethylammonium chloride production, carbonyl sulfide production, chelating agents production, chlorinated paraffins production, ethylidene norbornene production, explosives production, hydrazine production, photographic chemicals production, phthalate plasticizers production, rubber chemicals production, symmetrical tetrachloropyridine production, OBPA/1,3-diisocyanate production, alkyd resins production, polyester resins production, polyvinyl alcohol production, polyvinyl acetate emulsions production, polyvinylbutyral production, polymerized vinylidene chloride production, polymethylmethacrylate production, maleic anhydride copolymers production, ammonium sulfate production—caprolactam by-product plants, and quaternary ammonium

compounds production. Along with these 22 source categories, the Miscellaneous Organic Chemical Manufacturing source category is also defined to include other organic chemical manufacturing processes which are not being covered by any other MACT standards.

Today's action establishes final standards for miscellaneous organic chemical manufacturing (40 CFR part 63, subpart FFFF).

D. What Are the Health Effects Associated With the Pollutants Emitted From Miscellaneous Organic Chemical Manufacturing?

The CAA was created, in part, "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of the population" (see section 101(b) of the CAA). These NESHAP will protect public health by reducing emissions of HAP from miscellaneous organic chemical manufacturing facilities.

Miscellaneous organic chemical manufacturing facilities emit an estimated 21,900 Mg/yr (24,100 tpy) of organic and inorganic HAP. Organic HAP include toluene, methanol, xylene, methyl ethyl ketone, ethyl benzene, methyl isobutyl ketone, and vinyl acetate. Inorganic HAP emitted by this industry include hydrogen chloride (HCl) and some HAP metals in the form of particulate matter (PM). The final rule reduces HAP emissions from miscellaneous organic chemical manufacturing facilities by 68 percent. As a result of controlling these HAP, the final NESHAP will also reduce emissions of volatile organic compounds (VOC). A summary of the potential health effects caused by exposure to these pollutants is presented in the preamble to the proposed rule (67 FR 16154).

E. How Did We Develop the Final Rule?

We proposed the NESHAP for the miscellaneous organic chemical manufacturing source category on April 4, 2002 (67 FR 16154) and provided an 85-day comment period. We received a total of 55 comment letters. A copy of each of the comment letters is available in Docket No. OAR–2003–0121 or A–96–04.

The final rule reflects full consideration of all the comments we received on the proposed rule, as well as our reassessment of certain data in the rulemaking record. Major public comments on the proposed subpart FFFF, along with our responses to the comments, are summarized in section IV of this preamble. A detailed response to all comments is included in the Background Information Document for the promulgated standards (Docket No. OAR–2003–0121). Comments on the proposed miscellaneous coating manufacturing NESHAP will be summarized and discussed in the subpart HHHHH promulgation package.

II. Summary of the Final Rule

A. What Are the Affected Sources and Emission Points?

Emission points identified from miscellaneous organic chemical manufacturing production include process vents, storage tanks, equipment leaks, transfer operations, and wastewater collection and treatment systems. The affected source subject to this subpart is the facilitywide collection of miscellaneous organic chemical manufacturing process units (MCPU), wastewater treatment and conveyance systems, transfer operations, and associated ancillary equipment such as heat exchange systems that are located at a major source of HAP as defined in section 112(a) of the CAA. An MCPU includes a miscellaneous organic chemical manufacturing process, as defined in 40 CFR 63.2550, and must meet the following criteria: (1) It manufactures any material or family of materials described in 40 CFR 63.2435(b)(1); it processes, uses, or produces HAP described in 40 CFR 63.2435(b)(2); and, except for certain process vents that are part of a chemical manufacturing process unit, as identified in 40 CFR 63.100(j)(4), the MCPU is not part of an affected source under another subpart of 40 CFR part 63. The MCPU is defined according to the equipment used to make the subject material, and it includes storage tanks that are associated with the process.

New sources are created by reconstructing existing sources, constructing new "greenfield" facilities, or constructing an addition to an existing source that is a dedicated MCPU and has the potential to exceed 10 tpy of an individual HAP or 25 tpy of combined HAP. Reconfiguration of existing equipment does not constitute "construction."

B. What Are the Emission Limits and Work Practice Standards?

The final rule regulates HAP emissions from miscellaneous organic chemical manufacturing facilities that are determined to be major sources. The standards apply to existing sources as well as new sources.

Process Vents

The final standards for existing batch and continuous process vents are set at a floor level of control and include requirements for organic and inorganic HAP. For batch process vents, the final standards require you to reduce uncontrolled organic HAP emissions from the sum of all batch process vents within the process by 98 percent if uncontrolled emissions exceed 4,540 kilograms per year (kg/yr) (10,000 pounds per year (lb/yr)). No control of vents is required for processes that are limited to uncontrolled emissions of 4,540 kg/yr (10,000 lb/yr) or less, as calculated on a rolling 365-day basis. A second control option for batch vents is to reduce the sum of all batch process vents within the process by 95 percent using recovery devices.

For continuous process vents, the final standards require control of vents determined to have a total resource effectiveness (TRE) index equal to or less than 1.9. The standards require you to reduce HAP emissions by at least 98 percent by weight if the TRE of the outlet gaseous stream after the last recovery device is less than 1.9, or to reduce the outlet total organic compound (TOC) concentration to 20 parts per million by volume (ppmv) or less. For continuous process vents, we reference the process vent standards contained in 40 CFR part 63, subpart SS.

For inorganic HAP, we set the standards based on the floor and made no distinction between batch and continuous streams. The standards for hydrogen halide and halogen HAP (*i.e.*, HCl, hydrogen fluoride (HF), and chlorine (Cl_2)) were determined to be 99 percent control of hydrogen halide and halogen HAP from the sum of all process vents in processes with uncontrolled hydrogen halide and halogen HAP emissions equal to or greater than 1,000 lb/yr. The final rule also requires control of hydrogen halide and halogen HAP emissions generated by the combustion control of halogenated streams, which are defined by a mass emission rate of halogen atoms contained in organic compounds of 0.45 kilograms per hour (kg/hr) or more. Specifically, hydrogen halide and halogen HAP emissions must be reduced after the combustion device by 99 percent, to no more than 0.45 kg/hr, or to no more than 20 ppmv. Alternatively, the halogen atom mass rate before the combustion device may be reduced to no more than 0.45 kg/hr or to no more than 20 ppmv. The MACT floor for PM HAP emissions from process vents at existing sources is no

emissions reduction, and we did not set a standard above the floor.

We defined the term "process" to include all equipment that collectively function to produce a material or family of materials that are covered by the source category. For batch process vents, we also established an equivalent mass cutoff of 200 lb/yr in the final rule that corresponds to the 50 ppmv concentration.

The new source standards for batch and continuous process vents follow the same formats as described above. However, some of the applicability triggers are more stringent. All batch process vents within a process for which the uncontrolled organic HAP emissions from batch process vents exceed 1,360 kg/yr (3,000 lb/yr) must be reduced by either 98 percent using a control device or 95 percent using a recovery device. All continuous process vents with a TRE of less than or equal to 5.0 must be controlled by 98 percent. For inorganic HAP, the standards for new sources are identical to the standards for existing sources. The new source standard for PM HAP emissions from process vents is 97 percent control for each process with uncontrolled PM HAP emissions greater than or equal to 400 lb/yr. Control requirements for halogenated streams are also the same as for existing sources.

Storage Tanks

The final rule requires existing sources to control emissions from storage tanks having capacities greater than or equal to 38 cubic meters (m^3) (10,000 gallons (gal)) and storing material with a HAP partial pressure of greater than 6.9 kilopascals (kPa) (1.0 pound per square inch absolute (psia)). For new sources, the standards require control of storage tanks having capacities greater than or equal to 38 m^3 (10,000 gal) and storing material with a HAP partial pressure of greater than 0.7 kPa (0.1 psia). For both existing and new sources, the required control is to use a floating roof or to reduce the organic HAP emissions by 95 percent by weight or more. We also concluded in a revised analysis that for small storage tanks (capacities <10,000 gal), that there is a "no emission reduction" MACT floor, and we did not specify a standard because the total impacts of a more stringent regulatory alternative were found to be unreasonable. Additionally, we concluded that the new source MACT floor as proposed is appropriate (95 percent control of all tanks with capacities of 10,000 gal and storing material with a HAP partial pressure of 0.1 psia) for all tanks.

Wastewater

The final rule requires management and treatment of Group 1 wastewater streams and residuals removed from Group 1 wastewater streams to be consistent with the requirements contained in 40 CFR part 63, subpart G. For the purposes of 40 CFR part 63, subpart FFFF, the characteristics of Group 1 wastewater streams are defined with the following characteristics at the point of determination (POD):

- Process wastewater containing partially soluble HAP at an annual average concentration greater than 50 parts per million by weight (ppmw) and a combined total annual average concentration of soluble and partially soluble HAP of 10,000 ppmw or greater at any flowrate.
- Process wastewater containing partially soluble HAP at an annual average concentration greater than 50 ppmw and a combined total annual average concentration of soluble and partially soluble HAP of 1,000 ppmw or greater at an annual average flowrate of 1 liter per minute (lpm) or greater.
- Process wastewater containing partially soluble HAP at an annual average concentration of 50 ppmw or less and soluble HAP at an annual average concentration of 30,000 ppmw or greater and a total annual load of soluble HAP of 1 tpy or greater.

At new sources, the requirements are identical to those for existing sources, but the applicability triggers on individual streams are more stringent. In addition to controlling streams that meet the thresholds for existing sources, control is also required for the following streams at their POD:

- Process wastewater containing an annual average HAP concentration exceeding 10 ppmw of compounds listed in Table 8 of 40 CFR part 63, subpart G, with annual average flowrate greater than 0.02 lpm.
- Process wastewater containing partially soluble HAP at an annual average concentration of 50 ppmw or less and soluble HAP at an annual average concentration of 4,500 ppmw or greater and a total annual load of soluble HAP of 1 tpy or greater.

The final rule also requires compliance with the requirements of 40 CFR 63.105 for maintenance wastewater streams, and compliance with the requirements in 40 CFR 63.149 for liquid streams in open systems within an MCPU.

Transfer Racks and Ancillary Sources

The final standards for transfer racks, maintenance wastewater, and heat exchange systems are unchanged from the proposal, and they are identical to the requirements in the hazardous organic NESHAP (HON). For transfer operations, we are requiring the HON level of control for transfer racks that load greater than 0.65 million liters per year (l/yr) (0.17 million gallons per year (gal/yr)) of liquid products that contain organic HAP with a partial pressure of 10.3 kPa (1.5 psia). For each transfer rack that meets these thresholds, total organic HAP emissions must be reduced by 98 percent by weight or more, or the displaced vapors must be returned to the process or originating container. For maintenance wastewater, you must prepare a plan for minimizing emissions. For heat exchange systems, you must implement a monitoring program to detect leaks into the cooling water.

Equipment Leaks

For equipment leaks, the final rule requires implementation of a leak detection and repair (LDAR) program. For processes with no continuous process vents, you must implement the program in 40 CFR part 63, subpart TT. For processes with at least one continuous process vent, you must implement the program in 40 CFR part 63, subpart UU. Alternatively, you may elect to comply with the requirements in 40 CFR part 65, subpart F (*i.e.*, the Consolidated Federal Air Rule).

Pollution Prevention

The final rule also includes a pollution prevention alternative for existing sources that meets the control level of the MACT floor and may be implemented in lieu of the emission limitations and work practice standards described above. The pollution prevention alternative provides a way for facilities to comply with MACT by reducing overall consumption of HAP in their processes; therefore, it is not applicable for HAP that are generated in the process or for new sources. Specifically, you must demonstrate that the production-indexed consumption of HAP has decreased by at least 65 percent from a 3-year average baseline set no earlier than the 1994 through 1996 calendar years. The production-indexed consumption factor is expressed as the mass of HAP consumed, divided by the mass of product produced. The numerator in the factor is the total consumption of the HAP, which describes all the different areas where it can be consumed, either through losses to the environment, consumption in the process as a reactant, or otherwise destroyed.

Emissions Averaging Provisions

The final rule incorporates the emissions averaging provisions in 40 CFR part 63, subpart G (the HON), with some changes to accommodate batch process vents. For example, the final rule specifies that uncontrolled emissions from batch process vents are to be calculated using the procedures in 40 CFR part 63, subpart GGG, and performance testing must be conducted under worst case conditions, as defined in subpart GGG.

Alternative Standard

The final rule contains an alternative standard for process vents and storage tanks. When emissions are controlled using combustion control devices, the alternative standard requires control to an undiluted TOC concentration of 20 ppmv or less and an undiluted hydrogen halide and halogen HAP concentration of 20 ppmv or less. For noncombustion control devices, the TOC concentration and total hydrogen halide and halogen HAP concentration both must be reduced to 50 ppmv or less. Continuous monitoring of outlet TOC and total hydrogen halide and halogen HAP is required for compliance with this alternative standard.

C. What Are the Testing and Initial Compliance Requirements?

Process Vents

The final rule requires calculation of uncontrolled emissions as a first step in demonstrating compliance with the 98 percent or 95 percent reduction requirement for batch process vents. This initial calculation of uncontrolled emissions is not required if you choose to control process vents using the alternative standard or using specified combustion devices. For continuous process vents, the final rule requires calculation of the TRE index values using the procedures contained in the HON for continuous process vents.

To verify that the required reductions have been achieved, you must either test or use calculation methodologies, depending on the emission stream characteristics, control device, and the type of process vent. For each continuous process vent with a TRE less than or equal to 1.9, compliance with the percent reduction emission limitation must be verified through performance testing. For batch process vents, initial compliance demonstrations must be conducted in accordance with the requirements in the Pharmaceuticals Production NESHAP (40 CFR part 63, subpart GGG). Specifically, performance tests are required for control devices handling greater than 9.1 Mg/yr (10 tpy) of HAP, while either engineering assessments or performance tests are allowed for control devices with lower loads and for condensers. Performance tests must be conducted under worst-case conditions if the control device is used to control emissions from batch process vents.

Storage Tanks, Transfer Racks, and Wastewater

To demonstrate initial compliance with emission limits and work practice standards for storage tanks, transfer racks, and wastewater systems, the final rule allows you to either conduct performance tests or document compliance using engineering calculations. The initial compliance procedures are specified in 40 CFR part 63, subpart SS (National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process), subpart WW (National Emission Standards for Storage Vessels (Tanks—Control Level 2)), and subpart G (the HON), for control devices used to reduce emissions from storage tanks and transfer racks, storage tanks controlled with floating roofs, and wastewater sources, respectively.

D. What Are the Continuous Compliance Requirements?

The final rule requires monitoring, inspections, and calculations to demonstrate ongoing compliance. Typically, continuous monitoring (*i.e.*, every 15 minutes) of emissions or operating parameters is required when using a control device or wastewater treatment device. If operating parameters are monitored, operating limits must be established during the initial compliance demonstration. Periodic inspections are required for emission suppression equipment on waste management units and floating roofs on storage tanks and wastewater tanks. For processes that have Group 2 batch process vents (*i.e.*, total organic HAP emissions less than 10,000 lb/yr), you must track the number of batches produced to show that emissions remain below the Group 1 threshold.

Continuous monitoring requirements for control devices are specified in 40 CFR part 63, subpart SS, with some exceptions specified in the final rule. For example, the final rule requires that monitoring data during periods of startup, shutdown, and malfunction (SSM) be used in daily averages, whereas subpart SS excludes such data from averages. For batch process vents, you may request approval to set operating limits for individual or groups of emission episodes using the results of the performance test and applicable supplementary information. To use this approach, you must provide rationale for your selected operating limits in your precompliance report. As an alternative to daily averaging, the final rule also allows averaging over a batch or segment of a batch for control devices used to reduce emissions from batch process vents. For control devices that do not control more than 1 tpy of HAP emissions, only a daily verification that the control device is operating as designed is required.

Inspections for floating roofs must be conducted in accordance with 40 CFR part 63, subpart WW. All monitoring and inspection requirements for wastewater systems must be conducted in accordance with 40 CFR part 63, subpart G.

E. What Are the Notification, Recordkeeping, and Reporting Requirements?

Recordkeeping and reporting requirements are outlined in the General Provisions to part 63 (40 CFR part 63, subpart A), as well as the requirements in referenced subpart G (the HON), subpart SS (National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process), subpart TT (National Emission Standards for Equipment Leaks—Control Level 1), subpart UU (National Emission Standards for Equipment Leaks—Control Level 2 Standards), and subpart WW (National Emission Standards for Storage Vessels—Control Level 2). The sections of subpart A that apply to the final rule are designated in Table 12 to subpart FFFF of 40 CFR part 63. Additional recordkeeping and reporting requirements are specific to the final rule. For example, you are required to submit a precompliance report if you choose to comply using an alternative monitoring approach, use an engineering assessment to demonstrate compliance, or comply using a control device handling less than 1 tpy of HAP emissions. The final rule also references the SSM recordkeeping and reporting requirements contained in 40 CFR part 63, subpart SS. Under these provisions, SSM records are required only for events during which excess emissions occur or events when the startup, shutdown, and malfunction plan (SSMP) was not followed.

Consistent with the General Provisions, you must submit an initial notification, a notification of compliance status (NOCS) report, and compliance reports. The initial notification is required within 120 days of the effective date of 40 CFR part 63,

subpart FFFF. That brief notification serves to alert appropriate agencies (State agencies and EPA Regional Offices) of the existence of your affected source and puts them on notice for future compliance actions. The NOCS report, which is due 150 days after the compliance date of the NESHAP, is a comprehensive report that describes the affected source and the strategy being used to comply. The NOCS report is also an important aspect of the title V permitting strategy for sources subject to subpart FFFF. Compliance reports are required every 6 months.

III. Summary of Environmental, Energy, and Economic Impacts

A. What Are the Air Emission Reduction Impacts?

We estimate nationwide baseline HAP emissions from miscellaneous organic chemical manufacturing sources to be 21,900 Mg/yr (24,200 tpy). We project that the final rule will reduce HAP emissions by about 15,200 Mg/yr (16,800 tpy). Because many of the HAP emitted by miscellaneous organic chemical manufacturing facilities are also VOC, the NESHAP will also reduce VOC.

Combustion of fuels in combustion-based control devices and to generate electricity and steam will increase secondary emissions of carbon monoxide (CO), nitrogen oxides (NO_X), sulfur dioxide (SO_2), and PM less than 10 microns in diameter (PM_{10}) by about 870 Mg/yr (960 tpy). These impacts were estimated assuming electricity is generated in coal-fired power plants, steam is produced in natural gas-fired industrial boilers, and natural gas is used as the auxiliary fuel in incinerators and flares.

B. What Are the Cost Impacts?

The cost impacts include the capital cost to install control devices and monitoring equipment, and include the annual costs involved in operating control devices and monitoring equipment, implementing work practices, and conducting performance tests. The annual cost impacts also include the cost savings generated by reducing the loss of product or solvent in the form of emissions. The total capital cost for existing sources is estimated to be $127 million, and the total annual cost for existing sources is estimated to be $75.1 million per year.

We estimate that in the first 3 years after the effective date of 40 CFR part 63, subpart FFFF, that the annual cost burden will average $3,150/yr per respondent for recordkeeping and reporting requirements. This estimate was based on having 251 sources. Most of these costs are for new and reconstructed sources that must be in compliance upon startup; other costs are for existing sources to prepare initial notifications and plans. In the fourth year after the effective date, existing facilities must begin to monitor and record operating parameters to comply with operating limits and prepare compliance reports, which will significantly increase the annual burden nationwide.

We expect that the actual compliance cost impacts of the NESHAP will be less than described above because of the potential to use common control devices, upgrade existing control devices, implement emissions averaging, or comply with the alternative standard. Because the effect of such practices is highly site-specific and data were unavailable to estimate how often the lower cost compliance practices could be utilized, we could not quantify the amount by which actual compliance costs might be reduced.

C. What Are the Economic Impacts?

The economic impact analysis for 40 CFR part 63, subpart FFFF, shows that the expected price increase for affected output is 0.5 percent, and the expected change in production of affected output is a reduction of 0.3 percent. One plant closure is expected out of the 207 facilities affected by the final rule. It should be noted that the baseline economic conditions of the facility predicted to close affect the closure estimate provided by the economic model, and that the facility predicted to close appears to have low profitability levels currently. Therefore, no adverse impact is expected to occur for those industries that produce miscellaneous organic chemicals affected by the NESHAP, such as soaps and cleaners, industrial organic chemicals, and agricultural chemicals.

D. What Are the Non-air Health, Environmental, and Energy Impacts?

With the assumption that overheads from steam stripping will be recoverable as material or fuel, no solid waste is expected to be generated from steam stripping of wastewater streams. No solid waste is expected to be generated from controls of other emission points. We expect the overall energy demand (*i.e.*, for auxiliary fuel in incinerators, electricity generation, and steam production) to increase by an estimated 6.1 million gigajoules per year (5.8 trillion British thermal units per year).

IV. Summary of Responses to Major Comments

A. What Changes to Applicability Did the Commenters Suggest?

Comment: Several commenters suggested using only one industrial classification code, preferably the NAICS. The commenters also recommended increasing the specificity of the NAICS codes to six digits. As an alternative, one commenter suggested that the codes be scrapped and applicability be based simply on the manufacture of organic chemicals. Finally, the commenters requested exceptions for all codes that refer to inorganic chemical manufacturing processes.

Response: We decided to retain both the SIC and NAICS codes in the final rule. Although SIC codes are being phased out, we decided to retain them because many industries still use these codes, and they were the basis for the selecting industries that received the section 114 information request. We rejected the suggestion to use six-digit NAICS codes because the list would be unnecessarily long; listing exclusions is much shorter. For the final rule, we also decided to list only the three-digit NAICS code for the chemical manufacturing subsector (325) rather than the seven four-digit codes for industry groups within this subsector because 40 CFR part 63, subpart FFFF, applies to all of the industry groups. However, there are selected manufacturing processes within both the SIC and NAICS industry groups for which the final rule is not applicable. These processes are exempted in the final rule by listing only the applicable six-digit NAICS code. Thus, a process described by a listed six-digit NAICS code is exempt even if it falls within an otherwise applicable SIC code. The exemptions cover all but three of the processes described by NAICS codes 325131, 325181, 325188, 325314, 325991, and 325992. The three processes within these otherwise exempt categories are hydrazine, reformulating plastics resins from recycled plastics products, and photographic chemicals.

Comment: Two commenters stated that hydrazine manufacturing should not be subject to 40 CFR part 63, subpart FFFF, and the Hydrazine Manufacturing source category should be delisted because within the next few months, there will no longer be major sources within the source category; emissions from hydrazine manufacturing are too low to trigger controls; and hydrazine is an inorganic compound. If hydrazine is not removed from the miscellaneous

organic chemical manufacturing source category, one of the two commenters suggested that alternative testing methods are needed for hydrazine and that the definition of TOC should be changed to include hydrazine. The other commenter pointed out that the TRE equation is meaningless for hydrazine manufacturing plants because it requires sources to determine the hourly emission rate of organic HAP, and hydrazine and the raw materials used to produce hydrazine (*e.g.*, chlorine, caustic soda, and ammonia) are all inorganic.

Response: Subpart FFFF covers the manufacture of hydrazine because it was one of the source categories subsumed, and the standards are based on a broad variety of chemical manufacturing processes. We developed separate standards for hydrogen halide and halogen emissions that require 99 percent control when uncontrolled hydrogen halide and halogen emissions exceed 1,000 lb/yr per process. However, hydrazine itself is also a HAP. Therefore, process vents containing hydrogen halide and halogen HAP would be subject to standards for hydrogen halide and halogen emissions. Hydrazine emissions from process vents would be subject to either the continuous process vent standards or the batch process vent standards. For the purposes of calculating the TRE for continuous process vents or mass emissions for comparison with the 10,000 lb/yr applicability threshold for batch process vents, the final rule specifies that hydrazine is to be considered an organic HAP.

Comment: One commenter requested an exemption for photographic processing chemicals such as fixers, bleaches, and developers because HAP emissions from the processes are minimal, the equipment to manufacture these compounds are mixing vessels, and the processes do not appear to be included in the MACT floor. The commenter suggested that administrative burdens associated with the final rule, including calculating uncontrolled emissions, are not warranted.

Response: We have not exempted manufacturing processes for photographic processing chemicals. The manufacturing equipment and emission characteristics, such as mixing vessels and their associated emissions from vapor displacement and evaporative losses, are represented by processes contained in the database.

Comment: Many commenters supported the concept of treating process vents from the production of energetics as a separate class of emission streams subject to alternative requirements or a lesser degree of control for safety reasons. Several commenters provided specifics on the hazards posed by incineration-based controls and made recommendations that included providing definitions for energetics, waiving requirements for energetics or establishing a process where safe control technology can be identified on a case-by-case basis, and considering other control alternatives for compounds such as organic peroxides, powdered metals, metal catalysts, and highly flammable gases such as ethylene oxide and hydrogen. One of the commenters indicated that condensation and carbon adsorption are not effective on some compounds, such as nitroglycerine, which is unstable at low temperatures and cannot be safely controlled by carbon adsorption because it spontaneously combusts. The commenter supported a definition for energetics that includes "propellants, explosives, and pyrotechnics." A second commenter suggested defining explosives as material included in the U.S. Department of Transportation hazardous materials tables (49 CFR 172.101) and listed as Hazard Class I hazardous material to include all Class I materials, or specifically materials in Divisions 1.1 through 1.6. The commenter indicated that using this approach, explosive manufacturers would know who they are because they are already shipping their materials as explosives; manufacturers who make materials that have some energetic properties, but are not shipped as explosives, would clearly be excluded. A third commenter requested that other compounds also be included in the subclass as explosives, particularly organic peroxides. The commenter cited EPA's rationale in providing a similar exclusion from control according to Resource Conservation and Recovery Act (RCRA), subpart CC for organic peroxide producers. A fourth commenter agreed and requested that EPA incorporate language already included at 40 CFR 264.1080(d) (duplicated at § 265.1080(d)) and 40 CFR 264.1089(i) (duplicated at § 265.1089(i)) in 40 CFR part 63, subpart FFFF. The commenter also suggested that other streams exist in the industry that may also meet this definition. For instance, reactive radioactive mixed waste wastewaters generated under the authority of the Atomic Energy Act and the Nuclear Waste Policy Act are exempted from closed conveyance requirements per 40 CFR 264.1080(b)(6). The U.S. Department of Energy requested this exemption because the radioactive mixed waste (RMW) containers "cannot be tightly sealed due to unacceptable pressure buildup of hydrogen gas to levels which can . . . create a potentially serious explosion hazard." The commenters requested that EPA include language that allows facilities to document the hazardous nature of their wastewater streams and petition for exemption from the wastewater standards.

Response: In the proposal, we recognized that the 98 percent control requirement for all process vents within affected processes would force incineration technology, and that this technology might not be appropriate for all process vent streams. Therefore, we also allowed 95 percent reduction of process vents if "recovery" control technology was employed to achieve required reductions. We envisioned at the time that the majority of this technology would be condensation. We solicited comments in the proposal on what commenters would consider achievable reductions from appropriate control technologies and how to define energetics. With the exception of the nitroglycerin example, we did not receive many comments that indicated that 95 percent control could not be achieved in most cases. Regarding organic peroxides, the add-on control requirement of RCRA, subpart CC, is 95 percent; therefore, EPA's earlier decision that indefinitely stayed requirements for producers of organic peroxides is consistent with the assumption that even 95 percent control cannot be achieved in these cases. Similarly, just as some reactive radioactive mixed wastewaters cannot be safely managed in closed systems, as one commenter suggested, there may be other situations that exist where sources may not be able to achieve the control efficiencies required by the final standards because of safety concerns. Based on the specific comments we received, we have concluded that it is appropriate to narrowly define a class of energetics and organic peroxides producers and allow, on a case-specific basis, a procedure to request an alternative compliance option. For these materials, the owner or operator must prepare and submit documentation in the precompliance report similar to the requirements in 40 CFR 264.1089(i) and 265.1089(i), explaining why an undue safety hazard would be created if the air emission controls specified in 40 CFR part 63, subpart FFFF, were installed on process vents, wastewater, and storage tanks containing energetics and organic peroxides, and describing what practices would be implemented to

minimize HAP emissions from energetics and organic peroxides manufacturing.

We did not broadly define energetics to encompass reactive or explosive conditions and the presence of highly flammable gases such as ethylene oxide and hydrogen. Based on past rules, we realize that combustion technology may not be appropriate in these cases, but other control technologies achieving relatively high control efficiencies are available and technically feasible.

Finally, the final rule includes a definition of "energetics" that is based on the definitions suggested by the commenters, and a definition of "organic peroxides" that is taken from 40 CFR 264.1080(d):

Energetics means propellants, explosives, and pyrotechnics and include materials listed at 49 CFR 172.101 as Hazard Class I Hazardous Materials, Divisions 1.1 through 1.6.

Organic peroxides means organic compounds containing the bivalent -o-o- structure which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

Borrowing from language contained in 40 CFR 264.1080(d), only processes producing "organic peroxides as the predominant products manufactured by the process" and manufacturing "more than one functional family of organic peroxides or multiple organic peroxides within one functional family," with one or more of these organic peroxides that "could potentially undergo self-accelerating thermal decomposition at or below ambient temperatures" would be eligible for identical treatment as energetics.

Comment: One commenter asked for clarification that only solvent recovery operations operating at chemical manufacturing facilities are covered under 40 CFR part 63, subpart FFFF. The commenter also suggested adding a paragraph to the final rule to alert wastewater treatment operators that the final rule might apply to them.

Response: We have not included the suggested language because solvent recovery operations are in fact covered by 40 CFR part 63, subpart FFFF, even if they are not located at a chemical manufacturing facility. However, offsite operations that are part of an affected source under another subpart of 40 CFR part 63, such as the Offsite Waste and Recovery Operations NESHAP (subpart DD), are not subject to subpart FFFF, as specified in § 63.2435(b)(3) of the final rule. Secondly, offsite treatment facilities are not affected sources but they may be required to treat wastewaters according to the provisions in subpart FFFF. Operators will be notified by respective dischargers of their obligation to treat in accordance with § 63.132(g)(1), as referenced in Table 7 to subpart FFFF of part 63.

Comment: A number of commenters identified concerns with the "family of materials" concept and requested that EPA either eliminate it or make several changes. Several commenters suggested that the term is inconsistent with the floor determination and the information collection request (ICR), which allowed respondents to group materials but did not require it. One commenter suggested that the family of materials concept would discourage innovative or new and changed products due to constantly changing calculations and control requirements and increased administrative burden associated with tracking families. The commenter also stated that the concept is incompatible with flexible batch processes and could lead to division of products and equipment that are emitting to the same vent or groupings of products located in different buildings. The commenter suggested that grouping be conducted on shared process vents rather than families.

Four of the commenters suggested two key concepts to incorporate into the definition: the need to be able to group together processes with essentially identical emission sources and/or stream characteristics; and the recognition that, under some circumstances, functionality (*e.g.*, end use or product characteristics) may be an appropriate option in lieu of chemical composition. One of the commenters also suggested that we revise the list of examples because the proposed examples appear to be much broader categories of products than what other parts of the definition seem to allow and apply the concept only to batch process units in the same operational area.

One commenter stated that if EPA insisted on regulating equipment based on a "family of materials" concept, it should be limited to batch processes, and the emission threshold from the batch database should be recalculated. Finally, one of the commenters suggested that if EPA does not remove the family of materials concept, EPA must allow facilities to exclude from a family of materials grouping all individual products when the manufacture results in uncontrolled HAP emissions of less than 500 lb/yr for nondedicated batch operations or 100 lb/yr for dedicated batch operations.

Response: The concept of "family of materials" is merely a logical grouping to describe materials that have very similar production and emission stream characteristics such that they can be considered as a single process. The final rule bases its control requirement on the sum of uncontrolled emissions within a process grouping. Only processes with uncontrolled organic HAP emissions of greater than 5 tpy are required to be controlled by 98 percent. Therefore, the definition of process determines what sources are included within a process grouping, which in turn affects applicable requirements and must be clearly specified in the final rule. In the proposed rule, we introduced the term family of materials to describe materials that vary only slightly in molecular structure, functional groups or other characteristics and are produced using procedures that result in essentially identical HAP emission streams from essentially identical emission sources. Our intent in requiring the grouping of these materials is to keep operators from artificially breaking them up into separate "processes" to avoid control requirements. We consider this concept to be important and have retained it in the final rule, with some modifications. Further, from our concept of "standard batch," we would say that each family of materials has the same "standard batch."

The standard batch concept was developed to allow owners and operators to identify and characterize emission events associated with a process. Once the emissions from each process are characterized, the owner or operator can merely count the number of batches conducted per year for each process to determine uncontrolled and controlled HAP emissions and compliance requirements. The standard batch concept provides a manageable way to document emissions; processes with the same identical standard batch should be considered the same process.

We agree with the commenters that our proposed definition did not adequately convey the concept of identical emission streams characteristics. We note that as long as groupings are also based on identical HAP emission characteristics, a grouping based on functionality is still compatible with the concept of having only one standard batch per process, which is a cornerstone of our compliance implementation strategy. Therefore, we have incorporated the suggested option so that the final definition requires identical emissions and either similar composition or functionality.

We reject the argument that the database is flawed because we did not require groupings when we surveyed

the industry. Although we did not require groupings, we encouraged respondents to group materials and provided guidance "that products that involve different HAP or different process equipment in case of dedicated processes should not be grouped together." This language is basically consistent with the family of materials concept, and we note that many processes in our database appear to be material groupings. Therefore, we did not revise the MACT floor or proposed standards for batch vents. We also have not incorporated the suggestion to exempt "individual products for which the manufacture results in less than 500 lb/yr uncontrolled HAP emissions for nondedicated batch operations" because this language is unnecessary and inappropriate. Although the commenter may not have provided information on individual products with less than 500 lb/yr (*e.g.*, the commenter could have grouped families and emissions would be over 500 lb/yr and required to be reported), we expect that some respondents applied the 500 lb/yr reporting test on families of materials, based on the substantive number of groupings reported. Thus, there is no basis for exempting individual products for which the manufacture results in HAP emissions below the suggested 500 lb/yr threshold. Finally, because the final rule makes no distinction between "batch" and "continuous" processes, but rather on batch and continuous emissions, we do not restrict the concept to batch "processes."

One commenter objected to the grouping of processes that are conducted in separate buildings and areas. Our proposed and final definition of process is not equipment specific. If the same product is manufactured in more than one set of equipment, emissions from all equipment must be considered when comparing to the 5 tpy mass applicability limit. The final rule is written this way because many manufacturers use nondedicated equipment to conduct their processes, and there is the potential that processing can be moved from one area to another easily to avoid regulation. Therefore, we do not restrict the family of materials grouping according to location.

Comment: Many comments addressed various concepts in the definition of miscellaneous organic chemical manufacturing process. Several commenters considered the definition to be too lengthy and confusing. Some suggested removing statements that do not define the process. Others asked for clarification of various terms used within the definition such as "nondedicated," "nondedicated solvent recovery," "equipment," and "product." Two commenters stated that "product or isolated intermediate" should be changed to "miscellaneous organic chemical product."

Several commenters objected to various requirements for nondedicated formulation operations. For example, some commenters opposed the requirement that all nondedicated formulation operations be considered a single process. They noted that the ICR did not request data for aggregated formulation operations and, thus, the MACT floor was based on separate formulation processes. Other commenters requested clarification of the term "contiguous area" as it relates to formulation operations. Several commenters found the exclusion for formulation operations that involve "mixing" to be confusing. They also requested that all formulation operations be exempt, not just those that are nondedicated and involve mixing, because none of these operations result in many emissions. One commenter expressed concern that estimating emissions for "hundreds" of small vents with minimal emissions for all the various formulated products would be burdensome, and control would be very costly. One commenter asked for an explanation of why nondedicated formulation operations (and nondedicated solvent recovery operations) are treated differently than other nondedicated operations.

Several commenters stated that cleaning operations should be part of the process only if they are routine and predictable because these are the only cleaning operations for which emissions can be estimated and included in a standard batch. Other commenters added that cleaning should not be part of the process if it involves opening of process vessels because there are no practical control methods for such events.

Response: Except for nondedicated solvent recovery and formulation operations, miscellaneous organic chemical manufacturing processes are product based, meaning that all equipment used to manufacture a product is to be included in determining process vent control. We think this product-based approach is necessary because owners and operators may have the flexibility to manufacture the same product in more than one distinct area in a way that would avoid control under an equipment-based standard. However, in the case of solvent recovery operations such as distillation operations, defining a process by product would mean that each separately recovered product would be a separate process, which would result in fewer "processes" triggering the control requirement for the same equipment. The same is true for nondedicated formulation operations, where various finished materials could be formulated for shipment or as final product. Considering these two types of nondedicated operations as single processes also likely reflects the way in which these operations are managed and permitted. Further, we think respondents reported their data following this convention. Often, these operations will vary only in the type of HAP used. If the same HAP solvent is used for a variety of products, the emission stream characteristics per batch will essentially be the same. Therefore, considering a number of these operations as a single process actually simplifies recordkeeping. Note, however, that the final rule contains two key exemptions for batch process vents that may exempt many of the emission sources contributing to "minimal" emissions that the commenter is describing (*i.e.*, 50 ppmv or 200 lb/yr).

Although our proposed definition excluded "mixing," we meant to exclude "mixing of coatings," since this operation is to be covered by 40 CFR part 63, subpart HHHHH. When a product is blended or mixed with other materials in equipment that is dedicated to the manufacture of a single product, the mixing is included as part of the miscellaneous organic chemical manufacturing process.

We wanted to limit nondedicated solvent and formulation processes to related operations within the same area, which is the reason for the language regarding "contiguous operations." However, we agree with one of the commenters that the term contiguous also conveys other meanings and, therefore, have revised the definition to refer to "each nondedicated solvent recovery (or formulation) operation." The intent is to limit the process to operations located within a distinct operating area.

We agree that nonroutine cleaning operations involving vessel openings should not be considered as part of a process because they are difficult to characterize within a standard batch. These emissions would be attributed to startup and shutdown events, which are addressed separately in the final rule. In some instances, however, cleaning that is conducted within enclosed equipment between batches or between campaigns should be considered part of a process; these operations often consist of conducting solvent rinses through the equipment. Emissions from these

operations are similar to emissions during processing and the final rule's emission estimation procedures are suitable for these events. Therefore, they can be included in a standard batch for a given product and can be practically implemented.

Comment: Some commenters are confused about how a process ends with the production of an "isolated intermediate" or product. One commenter stated that a process should end with the production of an isolated intermediate. Subsequent manufacturing operations using the intermediate should be considered part of a different process, and emissions from the operation should be managed separately from the emissions for the isolated intermediate process. A second commenter objected to the language in the proposal preamble that qualified the meaning of "stored" to be long-term storage, or that the material must be shipped offsite. The commenters stated that the term "storage" without qualification as to the length of storage or the purpose of storage is sufficient. A third commenter was concerned that the first sentence stated that an isolated intermediate is a "product," but the second sentence stated that many "isolated intermediates" many be produced in the manufacture of a product; and that to be an isolated intermediate, a material must be stored, but the definition of storage tanks specifically excludes tanks storing isolated intermediates. The commenter stated that the definition needs to define the end of an MCPU where that MCPU produces a material that is not itself a commercial product. Two commenters wanted clarification that the term isolated intermediate refers to an organic material and suggested changing the term to "isolated organic intermediate'; and four commenters suggested that the term be limited to batch processes.

Response: The concept of isolated intermediate is to identify a repeatable sequence of processing events that yield a material that is stable and subsequently stored before it undergoes further processing. The concept was introduced because many chemical processors have the capability to conduct intermediate processing steps in non-sequential order or even to conduct some processing steps offsite. Requiring an operator to consider all processing steps or campaigns that result in a final product may not yield a repeatable standard batch because of the possibility that not all steps would be conducted every time, or that some processing would depend on the availability of equipment and not be sequential; therefore, we limit the definition of process to the manufacture of an isolated intermediate. The concept that an isolated intermediate must be stored is important in that, if there is no "break" in the processing operations, there is no end of a process. We have, in the final rule, revised the definition of storage tank and process tank. Storage effectively occurs when material is stored and not processed over the course of a batch process. Therefore, we have eliminated the inconsistency regarding storage so that a storage tank can mark the end of a process if it is truly a storage tank and not a process tank, surge control vessel, or bottoms receiver. To limit confusion between listing the various vessel types that could be construed as process tanks, we eliminated the descriptive terms drums, totes, day tanks, and storage tanks.

We have not revised the definition to include the term "organic." Our proposed and final definition clearly indicates that the material must be described by 40 CFR 63.2435(b). We have not limited the term to batch processes because the revised definitions of storage tank, surge control vessel, and bottoms receiver, make this distinction unnecessary. Additionally, we avoided basing any requirements on the differences between batch and continuous "processes" because processes can often contain both batch and continuous operations. Finally, we agree that the term isolated intermediate also is necessary to clarify that a material that is not itself a commercial product can be considered a product of a process.

B. How Did We Change the Compliance Dates?

Comment: Several commenters stated that area sources that become major sources should have 3 years to comply. The commenters indicated that the proposed requirement to comply within 1 year deviates from 40 CFR 63.6(c)(5) of the General Provisions and requirements in other rules, and the proposal preamble provides no justification for the shorter time period. One commenter also noted that there is no difference in the level of effort needed to comply relative to that for a major source.

Response: We agree to reference the General Provisions directly for compliance requirements for an area source that becomes a major source. We consider the 3-year period that the General Provisions allows for areas sources to come into compliance after becoming major sources to be adequate time. The proposed rule was published on April 4, 2002 and the anticipated compliance date is August 2006. Area sources becoming major sources after the effective date will have 4-plus years to become familiar with the applicability of 40 CFR part 63, subpart FFFF. An area source that becomes a major source between the effective date and the compliance date also has 3 years to come into compliance, except if it adds a new affected source (*e.g.*, a dedicated MCPU with the potential to emit 10 tpy of any one HAP or 25 tpy of combined HAP).

Comment: One commenter operates an offsite treatment facility that could receive wastewater from affected sources under 40 CFR part 63, subpart FFFF. This commenter expressed concern with the requirement that existing sources be in compliance 3 years after the effective date of the final rule because they might not even receive affected wastewater until sometime after the compliance date. Therefore, the commenter suggested adding a new § 63.2445(f) to read as follows: "If you have an offsite treatment operation that receives affected wastewater or residue prior to the effective date of this subpart, then you must comply with the requirements for offsite treatment operations in this subpart no later than the date 3 years after the effective date of the subpart. If you have an offsite treatment operation that receives affected wastewater or residue after the effective date of this subpart, then you must comply with the requirements for offsite treatment operations in this subpart prior to receipt of an affected wastewater or residue."

Response: The proposed rule specified that affected wastewater (*i.e.*, "Group 1" wastewater in the final rule) that is sent offsite for treatment would be subject to § 63.132(g) of the HON. Those provisions require the offsite facility to comply with §§ 63.133 through 63.147 for any Group 1 wastewater that they receive. The commenter was concerned that an offsite treatment facility would be considered to be an existing source and might be unable to demonstrate initial compliance (*i.e.*, implement the design and operational requirements for waste management units and determine the performance of control devices and treatment processes) by the compliance date if the facility is not now receiving Group 1 wastewater and the operators are unaware whether the facility may receive such wastewater at some point in the future.

We did not add the suggested language because the proposed language is clear and already satisfies the commenter's concerns. Although an

offsite treatment facility will be required to meet the wastewater standards and associated compliance provisions if it accepts wastewater from an affected source, the offsite treatment facility is not an affected source. Therefore, the compliance date specified in § 63.2445 does not apply to an offsite treatment facility. The burden is also on the affected source operators to inform the offsite treatment facility of their intent, determine if the offsite facility is willing to handle the wastewater, and allow the offsite treatment facility time to achieve initial compliance before the first shipment.

C. How Did We Develop the Standards?

Comment: One commenter stated that EPA unlawfully failed to set standards for all HAP emitted by the source category. According to the commenter, examples of HAP for which standards were not set include inorganic HAP such as HCl, HF, Cl_2, potassium compounds; and organic HAP such as maleic and phthalic anhydrides. As support, the commenter referenced *National Lime Association* v. *EPA*, 233 F.3d 625 (D.C. Cir. 2000). Conversely, other commenters noted that the rule as proposed regulates both inorganic and organic HAP, but they suggested it should regulate inorganic HAP only when generated by the combustion of halogenated organic HAP. Some of these commenters stated that focusing on just organic HAP would be consistent with EPA's CAA section 114 data collection, the corresponding MACT floor analysis, and the approach used in other MACT standards. Two commenters noted that EPA recognized the inherent differences in the physical/chemical nature of inorganic HAP and the different technologies required for their control and specifically excluded inorganic HAP from the MACT floor analysis. The two commenters also stated that other standards, such as the HCl Production MACT, already adequately address inorganic HAP reduction requirements. Should EPA decide to regulate inorganic HAP, two commenters indicated that we should conduct additional MACT floor analyses and then propose separate standards for organic and inorganic HAP.

Response: At proposal, our intent was that all types of gaseous HAP would be subject to the batch and continuous process vent standards. Similarly, the proposed storage tank standards would apply to all gaseous HAP, provided the maximum true vapor pressure for the total HAP in the storage tank exceeded the specified threshold. However, standards for the remaining emission source types are based on the compounds regulated by the HON, which covered organic HAP only. Standards for transfer operations and equipment leaks would also apply to any individual organic HAP or combination of organic HAP that meet a partial pressure threshold. Wastewater standards would apply only to those organic HAP that have the potential to volatilize from water based on modeling analyses conducted during development of the HON.

In response to the comments, we decided to develop a MACT floor and standards for hydrogen halide and halogen HAP (*i.e.*, HCl, HF, and Cl_2) emissions from process vents that are separate from the analysis for organic HAP emissions. Based on data obtained in responses to the original ICR, this MACT floor was determined to be 99 percent control of hydrogen halide and halogen HAP from the sum of all vents in processes with uncontrolled hydrogen halide and halogen emissions equal to or greater than 1,000 lb/yr. We did not receive any information regarding source reduction techniques for hydrogen halide and halogen HAP. Generally, we would expect that these compounds are emitted as products of reaction, and there may be less opportunity for source reduction from these types of process vent emissions when compared to organic HAP. However, we structured the MACT floor to consider measures of reducing HAP emissions other than add-on control by basing the MACT floor on a percent reduction above some uncontrolled emission value. By default, implementing source reduction measures reduces "uncontrolled emissions." The performance level of 99 percent is the highest control level achievable across the source category and is achieved by about 50 percent of the processes. The primary control devices used in the industry are packed-bed scrubbers. Control efficiencies for hydrogen halides (acid gases) and halogens depend on the solubility of the HAP in the scrubbing liquid, which in turn will vary with the processes that emit them. Control device vendors estimate that removal efficiencies for inorganic gases range from 95 to 99 percent (EPA–CICA Fact Sheet: Packed-Bed/Packed-Tower Scrubber). Therefore, although the reported control efficiencies for some processes were in excess of 99 percent, levels greater than 99 percent may not be uniformly achievable under all operating conditions. The best performing of these sources are those with the lowest uncontrolled emissions from the sum of all vents within the process. Therefore, we ranked all processes controlling hydrogen halide and halogen emissions to at least 99 percent by their uncontrolled emissions, from lowest to highest. For the best-performing 12 percent of processes, the median uncontrolled emissions rate is 1,000 lb/yr.

In setting the MACT floor for existing sources, we considered whether sources may be using emission reduction techniques other than technological controls for hydrogen halide and halogen HAP to determine whether such techniques might provide the basis for a floor. However, we did not receive any information regarding emission reduction techniques for these HAP in response to our ICR request that sources provide such information. Accordingly, we do not have information indicating that a sufficient percentage of sources are using emission reduction techniques for hydrogen halide and halogen HAP to enable us to set a MACT floor based on such techniques. Generally, we expect that because these HAP are emitted as products of reaction, there may be fewer opportunities to reduce process vent emissions of these HAP than there are opportunities to reduce emissions of organic HAP. (Organic HAP are frequently present in solvents, and solvent use can often be reduced; by contrast, reducing emissions of reaction products is more difficult because fundamental process changes are typically necessary.) Again, however, we do not have any information about the use of emission reduction techniques with which to support a floor determination.

Nevertheless, sources may use the pollution prevention option set out in 40 CFR part 63, subpart FFFF, to meet the 1,000 lb/yr cutoff for process vent emissions of hydrogen halide and halogen HAP and thereby comply with the relevant standards.

For new sources, the MACT floor is the same as for existing sources because reported control efficiencies in excess of 99 percent are not reliable. The final standards for hydrogen halide and halogen HAP emissions from process vents are also based on the MACT floor because the total impacts of a regulatory alternative were determined to be unreasonable.

Based on comments received, we decided to review our available data and develop a MACT floor for HAP metals in the form of PM, which acts as a surrogate for them. Our database shows six facilities emit PM HAP (specifically various metal compounds). One of the six facilities is controlling emissions from three processes with three different control devices, and the lowest control

efficiency is 97 percent. Since there are only six sources, the MACT floor for existing sources is based on the average performance of the top five sources. Since only one of the top five sources is implementing control, we determined the MACT floor is no emissions reduction. The final standard is based on the MACT floor because the total impacts of a regulatory alternative were determined to be unreasonable.

In setting the MACT floor, we considered whether some facilities may implement emission reduction measures to reduce PM HAP emissions, instead of using control technologies. We requested information on emission reduction measures in our section 114 information request. Of the approximately 40 different process changes reported, however, only one facility reported a process change that could be directly associated with PM emissions, which was described as "removing a hopper and vent." Further, we do not know whether this emission reduction measure was effective in reducing PM HAP emissions. Therefore, because we lack information indicating that a sufficient number of process vents employ such measures to reduce emissions of PM HAP to set a floor, we were unable to set a MACT floor based on emission reduction measures.

The new source MACT floor for PM HAP emissions is based on the control achieved by the best-performing source. As noted above, the best-performing source is routing emission streams from three processes to three different control devices: a baghouse (fabric filter), a spray chamber and a rotoclone. The baghouse (fabric filter) achieves 97 percent control and this level is considered the emission control level that is achieved in practice by the best-controlled similar source, even though the other control devices report higher control efficiencies. Particulate control efficiencies are influenced by factors such as filtration velocity, particle loading, and particle characteristics, which in turn vary depending on the processes that emit them. Variations in stream characteristics make it difficult to conclude that the higher reported control efficiencies for the other control devices could be achieved in practice by all process vents that emit PM HAP. Based on ranking of the sources achieving 97 percent according to each source's lowest uncontrolled PM HAP emission level, the best-performing source is the lowest uncontrolled PM HAP emission level for any of the controlled processes (i.e., 400 lb/yr). Thus, the new source MACT floor for PM HAP emissions from process vents is 97 percent control for each process with uncontrolled PM HAP emissions greater than or equal to 400 lb/yr.

Comment: One commenter stated that we unlawfully exempted emission points from regulation by establishing applicability cutoffs for both new and existing sources. The commenter stated that the rule must apply to all sources as required under the CAA, and, thus, cutoffs are illegal; and for wastewater, transfer operations, and equipment leaks, EPA illegally borrowed cutoffs and MACT floors from other standards. The commenter stated that standards must reflect the actual performance of the best-performing sources in the miscellaneous organic chemical manufacturing category. The commenter objected to 98 percent control levels for the process vent floors because reported control efficiencies for many process vents exceeded 98 percent. Finally, the commenter objected to the use of a work practice standard for equipment leak controls. Conversely, several other commenters suggested that the rule should specify additional thresholds below which a source would be considered to have "insignificant HAP emissions" and be exempt from control.

Response: We disagree that every emission point at a major source must be required to reduce emissions. First, section 112(a) of the CAA defines "stationary source" (through reference to section 111(a)) as: "* * * any building, structure, facility, or installation which emits or may emit any air pollutant * * *." (42 U.S.C. §§ 7412(a)(3) and 7411(a)(3)). The General Provisions for the MACT program define the term "affected source" as "the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory for which a section 112(d) standard or other relevant standard is established pursuant to section 112." (40 CFR 63.2). Nothing in the definition of "stationary source" or in the regulatory definition of "affected source" states or implies that each emission point or volume of emissions must be subjected to control requirements in standards promulgated under section 112.

Further, even under the commenter's interpretation of "stationary source," the Agency would still have discretion in regulating individual emission sources. Section 112(d)(1) allows the Administrator to "distinguish among classes, types, and sizes of sources within a category or subcategory in establishing such standards * * *." We interpret this provision for the miscellaneous organic chemical manufacturing NESHAP, as we have for previous rules, as allowing emission limitations to be established for subcategories of sources based on size or volume of materials processed at the affected source. Under the discretion allowed by the CAA for the Agency to consider "sizes" of sources, we made the determination that certain small-capacity and low-use operations (e.g., "smaller" storage tanks) can be analyzed separately for purposes of identifying the MACT floor and determining whether beyond-the-floor requirements are reasonable. In addition, our MACT floor determinations for certain categories (e.g., process vents), which are set according to section 112(d)(3) of the CAA, reflect the performance levels and "cutoffs" of the best-performing sources for which we had information.

In general, our MACT floor determinations have focused on the best-performing sources in each source category, and they consider add-on control technologies as well as other practices that reduce emissions. As part of our information collection effort, we requested information on emission source reduction measures. We generally did not receive information indicating that, for the emission points covered by 40 CFR part 63, subpart FFFF, sources are currently reducing emissions by means other than control technologies in sufficient numbers to support a MACT floor based on source reduction measures. Accordingly, our standards include a performance level that represents the level achieved by the best control technology, and a cutoff that represents the lowest emission potential that is controlled by the best 12 percent of sources. Because the miscellaneous organic chemical manufacturing source category is broad in terms of the numbers and types of processing operations that are covered, one challenge was to develop a format by which all sources could be compared to each other to establish the best-performing sources. The performance level generally is of the format that can be applied to different types of control technology and processes and is generally consistent with existing rules. Thus, different types of control technology and emission levels resulting from existing rules are captured in our MACT floor analysis. The cutoff allows owners and operators that have reduced their emissions below a certain level using one or more methods, including process changes to reduce or eliminate pollution at the source, to comply without additional control. Both performance levels and cutoffs have been set to account for variations in emission stream

characteristics so that the standards can be applied consistently across the source category. We believe that this approach is consistent with the language of section 112(d)(3) that requires us to set the MACT floor based on the best-performing 12 percent of existing sources.

Aside from the MACT floor determinations, we also provided a pollution prevention compliance alternative to allow compliance with the standards by demonstrating a reduction in HAP usage per unit of product. This alternative enables owners and operators to comply using emission source reduction measures.

The above discussion notwithstanding, we decided to conduct a MACT floor analysis for storage tanks with capacities less than 10,000 gal. We concluded that the MACT floor for small tanks at existing sources is no emissions reduction because we have information from only eight sources that is not sufficient for setting a floor, and only one of the best-performing five sources is implementing controls. We did not specifically request information for tanks with capacities of less than 10,000 gal. Based on earlier EPA studies on the organic compound manufacturing industry (EPA–450/3–90–025), we estimate the actual number of storage tanks with capacities of less than 10,000 gal in our source category to be 30 percent of the total number of tanks, or approximately 500 tanks. The eight facilities reported information on 19 tanks, which is not enough information to set the floor. We also based the standard for existing storage tanks with capacities less than 10,000 gal on the MACT floor, because a regulatory alternative was determined to be unreasonable.

As for the new source MACT floor for storage tanks with capacities less than 10,000 gal, the best-performing source is controlling emissions from two small tanks by 98 percent with thermal incineration. One tank has a capacity of 9,800 gal and is storing material with a HAP partial pressure of 0.373 psia. The other tank has a capacity of 8,000 gal and is storing material with a HAP partial pressure of 0.574 psia. We consider the first tank to be more stringently controlled because partial pressure is the best indicator of emission potential and controlling a lower partial pressure is an indication of greater stringency. We compared this tank's characteristics to the new source MACT floor for larger tanks, which was set at 95 percent control for tanks with capacities of greater than 10,000 gal and storing materials with HAP partial pressures of 0.1 psia or higher. From an analysis of the tanks in our database, we concluded that the new source MACT floor for larger tanks is more stringent than a floor based on 98 percent reduction for tanks storing material with a HAP partial pressure greater than or equal to 0.4 psia. Therefore, we concluded the new source MACT floor as proposed to be appropriate for all tanks.

Finally, we do not have any information indicating that storage tanks with capacities less than 10,000 gal are reducing emissions through measures other than control technologies. Accordingly, we lacked sufficient information to set a floor based on such measures.

The MACT floors for organic HAP emissions from batch and continuous process vents are 98 percent control because this level has been shown to be uniformly achievable by well-designed and operated combustion devices. During development of the HON, the EPA recognized that thermal incineration may achieve greater than 98 percent reduction in some cases, but test data show that levels greater than 98 percent may not be uniformly achievable under all operating conditions (59 FR 19420, April 22, 1994). Similarities in processes and resulting emission streams in this industry with that of the HON source category processes allow us to draw the same conclusions with regard to achievable combustion control efficiencies. A review of the batch process vent database indicates that most processes with overall control of 98 percent or greater are controlled using thermal incinerators and flares (110 of 132 processes). We found the performance level for the MACT floor to be 98 percent because as much as 15 percent of the 731 processes in the database were controlled by thermal incineration. Similarly, a review of the continuous process vent database indicates that most processes with overall control of 98 percent or greater are controlled using thermal incinerators and flares (31 of 37 processes). We found the performance level for the MACT floor to be 98 percent because as much as 15 percent of the 202 processes in the database were controlled by thermal incineration. We did not use reported control efficiencies for scrubbers used to control organic HAP because we do not know the fate of pollutants captured in the scrubber effluent. If some of these pollutants are re-released to the air, then the reported control efficiencies are not valid.

For equipment leaks, we considered various formats for the standard and determined that a work practice standard based on an LDAR program is the most feasible. Unlike other emission sources, leaking components are not deliberate emission sources but rather result from mechanical limitations associated with process piping and machinery. A well-managed facility follows a preventive maintenance program to minimize leaks, but in all practicality cannot guarantee that no leaks will occur. Therefore, an emission standard for equipment leaks would not be feasible to enforce or prescribe. At the same time, our data indicate that the MACT floor for equipment leaks is an LDAR program. We also developed regulatory alternatives on the use of more effective LDAR programs. Finally, we note that enclosing components and venting to control is allowed, but except in limited cases, we expect the cost to be prohibitive.

Regarding the other commenters' suggestions, we note that the standards for all types of emission points contain cutoff values, consistent with our MACT floors, below which sources are exempt from control. We also concluded that our information did not allow us to develop a relationship between the various emission source types such that we could identify "insignificant" sources merely by the sum of actual emissions from process vents.

Comment: One commenter stated that we failed to properly evaluate beyond-the-floor options. According to the commenter, in some cases, we stated that the MACT floor option was the most stringent option without identifying or evaluating other options (*e.g.*, LDAR for equipment leaks was assumed to be the most stringent option). In other cases, the commenter noted that the beyond-the-floor option is simply a lowering of the cutoff, and as discussed above for the MACT floor, the commenter stated that cutoffs should not be allowed. Also, where 98 percent control is the MACT floor, the proposed rule did not address why a beyond-the-floor option was not selected where data showed higher reductions are being achieved.

Response: Our beyond-the-floor options reflect the most stringent performance levels that have been proven and can be applied consistently across our source category. It is true that in many cases, the beyond-the-floor option was based on simply lowering a cutoff, similar to the discussion above for new sources. This is consistent with the intent of section 112(d)(3) because better-performing sources have lower cutoffs.

For example, for batch process vents at existing sources, we evaluated the

feasibility of a regulatory alternative that would require 98 percent control of batch process vents in processes with uncontrolled organic HAP emissions between 5,000 and 10,000 lb/yr. We concluded that the total impacts of this alternative are unreasonable in light of the HAP emission reductions achieved. The incremental HAP reduction achieved by this above-the-floor alternative is 145 Mg/yr, and the incremental cost is about $15,000/Mg of HAP controlled. The incremental electricity consumption to operate exhaust gas fans is 5.1 million kilowatt hours per year (kwh/yr). The incremental steam consumption for steam-assist flares is 6 million lb/yr. The incremental fuel energy consumption to operate incinerators and flares and to generate electricity is 340 billion British thermal units (Btu) per year. Total CO, NO_X and SO_2 emissions from combustion of the additional fuel is about 66 Mg/yr. There would be no wastewater or solid waste impacts.

We evaluated the feasibility of a regulatory alternative that would require 98 percent control of organic HAP emissions from continuous process vents that have a TRE index value between 1.9 and 5.0 at existing sources. We concluded that the total impacts of this alternative are unreasonable in light of the HAP emission reductions achieved. The incremental HAP reduction achieved by this above-the-floor alternative is about 400 Mg/yr, and the incremental cost is about $29,000/Mg of HAP controlled. The incremental electricity consumption to operate exhaust gas fans is 28 million kwh/yr. The incremental steam consumption for steam-assist flares is 83 million lb/yr. The incremental fuel energy consumption to operate incinerators and flares, generate steam, and generate electricity is 2.4 trillion Btu per year. Total CO, NO_X, and SO_2 emissions from combustion of the additional fuel is 400 Mg/yr. There would be no wastewater or solid waste impacts.

We evaluated the feasibility of a regulatory alternative that would require 99 percent control of hydrogen halide and halogen emissions from processes with uncontrolled hydrogen halide and halogen emissions between 500 and 1,000 lb/yr at existing sources. We concluded that the total impacts of this alternative are unreasonable in light of the emission reductions achieved. The incremental HAP reduction achieved by this beyond-the-floor alternative is 1.0 Mg/yr, and the incremental cost is about $90,000/Mg of HAP controlled. The incremental electricity consumption to operate exhaust gas fans is 31,000 kwh/yr, and the incremental fuel energy consumption to generate the electricity is 300 million Btu per year. Total CO, NO_X, and SO_2 emissions from the combustion of the additional fuel is 0.27 Mg/yr. The incremental wastewater generated from scrubber controls is 400,000 gal/yr.

We evaluated the feasibility of a regulatory alternative that would require 97 percent control of PM HAP emissions from process vents at existing sources if the uncontrolled PM HAP emissions exceeded 400 lb/yr. The only facility that meets the threshold for control is already controlled. Thus, we concluded that the total impacts of this alternative are unreasonable in light of the emission reductions achieved for a model facility that was based on the characteristics of the controlled facility. The incremental HAP reduction achieved by the above-the-floor alternative for the model facility is 4.3 Mg/yr, and the incremental cost is $68,000/Mg of HAP controlled. The incremental electricity consumption to operate exhaust gas fans is about 24,000 kwh/yr, and the incremental fuel energy consumption to generate the electricity is 230 million Btu per year. Total CO, NO_X, and SO_2 emissions from combustion of the additional fuel is 0.2 Mg/yr. The quantity of solid waste generated could be greater if the owner or operator elects to use a dust collector that includes water sprays and discharges the collected dust in a slurry form.

For wastewater, we considered a regulatory alternative that would require HON-equivalent control of wastewater streams at existing sources that contain soluble HAP at concentrations between 15,000 ppmw and 30,000 ppmw or that contain partially soluble or mixed HAP at flowrates between 0.5 and 1.0 lpm. We concluded that the total impacts of this alternative are unreasonable in light of the emission reductions achieved. The incremental HAP reduction achieved by this above-the-floor alternative is 160 Mg/yr, and the incremental cost is about $8,500/Mg of HAP controlled. The incremental electricity consumption to operate pumps is 45,000 kwh/yr. The incremental steam consumption for steam strippers is 8.0 million lb/yr. The incremental fuel energy consumption to generate electricity and steam is 12 billion Btu per year. Total CO, NO_X, and SO_2 emissions from the combustion of additional fuel to generate the electricity and steam is 1 Mg/yr. There may also be solid waste impacts if condensed steam and pollutants from the steam stripper cannot be reused. Small amounts of wastewater in the form of blowdown from the cooling water system for the condenser may also be generated.

For storage tanks at existing sources, we examined two regulatory alternatives. First, for storage tanks with capacities of at least 10,000 gal, we considered an alternative that would require an internal floating roof, external floating roof, or at least 95 percent reduction if the partial pressure of HAP stored in the tank is between 0.5 and 1.0 psia. We concluded that the total impacts of this alternative are unreasonable in light of the emission reductions achieved. The incremental HAP reduction achieved by this above-the-floor alternative is 30 Mg/yr, and the incremental cost is $19,000/Mg of HAP controlled. The incremental electricity and fuel consumption rates for storage tanks controlled with refrigerated condensers are 16,000 kwh/yr and 155 million Btu per year, respectively. Total CO, NO_x, and SO_2 emissions from combustion of additional fuel is 0.13 Mg/yr, and there would be no wastewater or solid waste impacts. There also would be no environmental impacts or energy impacts for other storage tanks controlled with floating roofs. The second regulatory alternative that we considered would require 95 percent control for storage tanks with capacities less than 10,000 gal. We concluded that the total impacts of this alternative are unreasonable in light of the emission reductions achieved. On an average tank basis, the incremental HAP reduction achieved by this above-the-floor alternative is less than 0.5 Mg/yr, and the incremental cost would be on the order of $200,000/Mg of HAP controlled. The incremental electricity and fuel energy consumption rates for storage tanks controlled with refrigerated condensers are about 3,100 kwh/yr and 30.0 million Btu per year, respectively. Total CO, NO_x, and SO_2 emissions from combustion of the additional fuel are about 0.025 Mg/yr. There would be no wastewater or solid waste impacts.

Regarding the specific situation described by the commenter in which we did not propose a more stringent option than the equipment leaks LDAR program, we are not aware of any option that could be applied consistently across the source category that would be effective. For example, enclosing all components and venting to control is allowed for process piping located inside of buildings or enclosures, but except in limited cases, we would expect the costs of such an option to be prohibitive. Furthermore, we have developed a revised MACT floor that consists of an LDAR program consistent with the requirements specified in 40 CFR part 63, subpart TT. We then

evaluated a regulatory alternative based on the more comprehensive LDAR program specified in 40 CFR part 63, subpart UU. We determined that this alternative is reasonable for processes that have at least one continuous process vent, but the costs are unreasonable for other processes. Because the regulatory alternative is implementation of a more stringent LDAR program, there are essentially no energy impacts or non-air quality health and environmental impacts associated with the regulatory alternative.

Finally, we did not evaluate a regulatory alternative for transfer operations because the floor is at the most stringent known requirements.

Comment: Several commenters recommended referencing the Generic MACT at 40 CFR part 63, subparts SS, UU, and WW, in their entirety to specify all of the initial compliance, monitoring, recordkeeping, and reporting for process vents, transfer operations, storage tanks, closed-vent systems, and equipment leaks. Commenters also recommended referencing §§ 63.132 through 63.149 (and their associated recordkeeping and reporting requirements in §§ 63.151 and 63.152) of the HON for all of the requirements for process wastewater streams and liquid streams in open systems within MCPU, although one commenter recommended referencing the closed-vent system requirements in subpart SS instead of the comparable requirements in the HON. According to the commenters, the piecemeal referencing in the proposed rule was confusing and it expanded some requirements relative to the other subparts and missed some requirements in those subparts, which resulted in inconsistencies. A particular concern was that the proposed approach excluded the use of fuel gas systems and routing emission streams to a process.

Response: To simplify and streamline the final rule and minimize the compliance burden, we decided to provide more complete references to the other rules with exceptions and additions only where needed. For example, we modified the hierarchy of compliance applicability in § 63.982(f) of the final rule; we overrode some of the initial compliance procedures in 40 CFR part 63, subpart SS, with the procedures in 40 CFR part 63, subpart GGG, for control devices used to control batch process vents; we retained the vapor balancing alternative in subpart GGG for storage tanks; we have specified different thresholds for Group 1 wastewater streams; we referenced 40 CFR part 63, subpart TT, rather than 40 CFR part 63, subpart UU, for equipment leaks in processes with no continuous process vents; we have specified periodic verification procedures rather than continuous monitoring for control devices with inlet HAP load less than 1 tpy; we have allowed averaging periods of operating blocks as well as operating days for batch operations; we retained the recordkeeping concept as proposed based on operating scenarios; we retained the precompliance report; and we have specified recordkeeping and reporting requirements for "deviations."

Comment: Two commenters requested that sources be allowed to follow the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Consolidated Federal Air Rule (CAR) for continuous process vents, storage tanks, equipment leaks, and transfer operations so that a facility with HON and miscellaneous organic chemical manufacturing processes can comply with a consistent set of requirements. The commenters stated that the maximum use of standardized programs such as the CAR will provide the maximum flexibility to a facility nominally covered by multiple MACT rule requirements. One commenter stated that the American Chemistry Council, EPA, and many other stakeholders developed the CAR as the lowest burden, clearest, and most consistent set of requirements possible for the chemical industry using the HON model and understood that the CAR rule would be a model for future chemical industry rules.

Response: The CAR was developed to provide a consolidated set of requirements applicable to storage vessels, process vents, transfer racks, and equipment leaks within the SOCMI. The CAR eliminates the overlapping requirements of numerous new source performance standards (NSPS) and NESHAP for the SOCMI that affect the same processes and equipment. These same requirements have also been codified in the Generic MACT at 40 CFR part 63, subparts SS, UU, and WW. Therefore, a facility with both HON and miscellaneous organic chemical manufacturing processes can essentially comply with the same set of requirements (*i.e.*, the HON processes would use the CAR, and the miscellaneous organic chemical manufacturing processes would follow the Generic MACT). We think that the reference in 40 CFR part 63, subpart FFFF, to the Generic MACT standards already provides the opportunity to consolidate across a facility, and except for equipment leaks, we do not see a benefit to cross-referencing another identical set of standards. We decided to specify in the final rule that you may elect to comply with equipment leak requirements in the CAR because the CAR is equivalent to or more stringent than the requirements in subpart FFFF.

D. Standards for Process Vents

Comment: Numerous commenters suggested that we adopt the definition of "batch process vent" from the Polymer and Resins IV NESHAP. The commenters noted that this definition includes an applicability cutoff level of 500 lb/yr. Some of the commenters justified using this cutoff, or a similar mass-based limit, for the miscellaneous organic chemical manufacturing source category because 50 percent of batch process vents in the database emit less than 500 lb/yr and account for only 0.2 percent of total emissions, it would be more enforceable, and it would not be affected by dilution. One commenter suggested adding exemptions for vents used less than 300 hours per year (hr/yr) or emitting less than 1,000 lb/yr because batch processes often have hundreds of minor vents that are used only occasionally or have minimal emissions, and it would be prohibitively expensive to control these vents. Other commenters supported the 50 ppmv minimum control threshold but suggested that the concentration should be based on annual average vent HAP concentrations and emissions averaged over numerous emission episodes. They suggested using the existing annual average batch vent flowrate and annual average batch vent concentration equations found in § 63.1323 of subpart JJJ. Many commenters also requested exclusions for opening of process equipment for material addition, inspection, and for health and safety vents. The commenters indicated that the exclusion for opening equipment is supported by the EPA database because those facilities that reported fugitive emissions from batch operations did not control them. Furthermore, the commenters cited the precedent of the Offsite Waste and Recovery Operations MACT, which relieves operators of the requirement to vent emissions through a closed-vent system during sampling of tank contents and removal of sludges.

Response: In general, we agree with the comments relating to adding a mass cutoff comparable to the 50 ppmv concentration limit. The use of a mass cutoff may be simpler than calculating the concentration in some situations, such as where emissions are known, but not the total volume of air in the system or the duration of an emission event (*e.g.*, emissions data developed from a mass balance). Being allowed to exclude vents based on emissions in addition to concentration may simplify the applicability determination procedure

in some cases. However, we determined that a lower cutoff than the 500 lb/yr is more appropriate. Of the approximately 1,500 process vents with concentrations less than 50 ppmv, the average (mean) mass emission rate is about 235 lb/yr. To establish a mass cutoff in the final rule that corresponds to the 50 ppmv concentration, we rounded this value to 200 lb/yr. If more than one emission episode contributes to a process vent, or if process vents within a process are piped or ducted together, the cutoff applies to the combined total.

The averaging period for determining the concentration was not specified in the proposed process vent definition; however, the proposed rule essentially required emissions to be calculated for each emissions episode. This means the averaging time for a concentration determination is over a single emission episode. The equations found in § 63.1323 of subpart JJJ would divide the total mass per batch by 8,760 hr/yr, which is not our intent. Therefore, we did not revise the definition to be consistent with the definition in subpart JJJ, but we have clarified that the concentration cutoff applies to emission episodes. The mass cutoff discussed above also applies to emission episodes. Thus, if a gas stream from any one episode meets the 50 ppmv cutoff, the process vent is affected.

Streams with less than 50 ppmv were specifically exempted from the vent definition to limit the introduction of dilution gases containing little to no HAP into emission streams as a means of diluting them and exempting them from control. Allowing averaging between streams of less than 50 ppmv with other emission episodes, as the commenters suggested, would effectively allow such dilution.

Therefore, we do not allow averaging across episodes to yield an average concentration for the purposes of determining whether a stream is affected.

We have decided to exempt some emissions releases that result from safety and hygiene practices because it is unlikely that these vents would reach the 50 ppmv concentration level. The exemption also will relieve owners and operators from the burden of demonstrating that they meet the concentration level. Specifically, the definition of "batch process vent" excludes flexible elephant trunk systems that draw ambient air (i.e, systems that are not ducted, piped, or otherwise connected to the unit operations) away from operators that could be exposed to fumes when vessels are opened.

We also note that although equipment openings without the presence of capture hoods and vents were not addressed specifically in the proposed rule, they would be subject to the provisions for certain liquid streams in open systems inside processes. Under these provisions, if the equipment meets the specified design and operating characteristics (*e.g.*, a tank with a capacity greater than 10,000 gal), then routine opening of the equipment would not be allowed. Also, opening events that are not routine and conducted as part of maintenance activities can be addressed in the facility's SSMP. Finally, regarding the commenter's request to exempt emergency vents, the SSMP can be used to address these events as well.

Comment: One commenter stated that MACT floors must be based on an average of existing regulatory limits, not on actual emissions data. According to the commenter, using actual emissions data violates section 302(k) of the CAA.

Response: We disagree with this comment. Nothing in section 302(k) of the CAA prohibits the use of actual emission data in setting MACT floors. The MACT floor was developed using all available information. The evaluation included, but was not limited to, information about existing regulatory limits. We also collected information from sources in the industry and States during 1997 that was the source of actual emissions data. A CAA section 114 ICR was sent to 194 facilities in the spring of 1997. The facilities which received the ICR were identified from EPA's 1993 toxic release inventory database which included information on facilities in SIC codes 282, 284, 286, 287, 289, or 386. Information on continuous processes came from emissions and permit databases from the following States: Texas, Louisiana, North Carolina, Illinois, Missouri, California, and New Jersey.

Comment: One commenter stated that the methodology utilized in determining the MACT floor for batch processes fails to accurately reflect the processes of the adhesives and coatings industry because, to the best of the commenter's knowledge, none of the 11 companies that own all of the sources in the MACT floor analysis makes adhesives. Other commenters noted that air-bearing vents, which cannot safely go to a flare or incinerator, should be considered separately from non-air-bearing vents because it is much harder to obtain high control efficiencies without using a combustion device. One commenter requested that spray dryer operations and post-spray dryer solids handling systems be excluded from the MCPU because the commenter is unaware of any facilities currently controlling such emission streams, it would be very costly to control such streams, and spray dryers are not specifically discussed in the MACT floor documentation.

Response: In the development of our database, we solicited information from a number of industries thought to be representative of this source category. Processing operations such as the synthesis of resins or polymers that are used as bases for adhesives are expected to result in emission sources with characteristics similar to other specialty chemical processes in this source category. Therefore, we expect the emission stream characteristics of the adhesives industry to have similar characteristics as those of other industries covered by this source category and have, therefore, not developed a separate category for this industry.

We disagree with the suggestion to consider air-bearing vents separately from other vents in the development of the MACT floor. Roughly half of the process vents in our batch process vents database have concentrations of 50 ppmv or less. These streams, which include many air-bearing streams from dryers and other sources, were exempt from the definition of process vent in the proposed rule because we recognize that it is not technically or economically feasible to require control of these streams. For process vents containing greater than 50 ppmv HAP, the final rule also allows compliance by meeting an outlet concentration limit as an alternative to a percent reduction standard. This alternative is provided to assist owners and operators in complying with the standards for low concentration streams.

Our process vent database includes spray dryers at two facilities. It also includes over 25 records for "dryers" at other facilities, some of which may pertain to spray dryers. As noted above, our database also includes air-bearing vents, which have characteristics likely to resemble those of emission streams from spray dryers. Therefore, we determined that these emission sources are represented in our database, and that the MACT floor properly sets the level of control for these vent streams.

Comment: Various commenters indicated the MACT floor for continuous process vents should be recalculated because of the following perceived problems with the database and analysis: a process vent at the BP Chemicals, Wood River plant (formerly Amoco Petroleum Additives), should be

removed from the database because no such vent ever existed; the database includes errors such as emission points that are not continuous process vents; the analysis was conducted on a facility basis rather than a vent basis; flowrate assumptions are too high; the sample population is too small; and the database is skewed by a disproportionate number of sources in ozone nonattainment areas.

Response: To develop the MACT floor for continuous process vents, we relied on available information from State permitting databases. To the best of our knowledge, these data reflect the sources that will be subject to requirements for continuous process vents. Although many of these facilities are in ozone nonattainment areas, the commenters have provided no evidence that this is not representative of sources that will be subject to the final standards. We disagree with the commenter's assertion that the analysis should be conducted on a vent basis rather than a facility basis. Our analysis was designed to identify what level of emissions would not be controlled by facilities that would be considered the best-controlled sources in the industry. That level of emissions, characterized by the vent with the highest TRE index value below which all other vents were controlled, became the TRE cutoff value for the facility. We consider the analysis valid and in keeping with the statutory MACT requirements of CAA section 112(d)(3). Regarding our assumption of flowrate in cases where no flowrate data were available, we note that our assumed flowrate is the average of the available flowrates. In response to the objection that the sample population was too small, we note that it is derived from many of the major chemical producing States, and we estimate that it represents about half of the affected sources with continuous process vents. However, we agree that the vent at the BP facility should be excluded because it never existed. Without this vent, the TRE threshold for control of continuous process vents is now 1.9 rather than 2.6.

Comment: Several commenters requested that control devices installed prior to April 4, 2002, be grandfathered from the 98 percent reduction requirement if they achieve 90 or 95 percent control of organic HAP. The commenters noted that many companies may be faced with abandoning existing control devices and installing new devices to get only an incremental reduction in HAP emissions, and they noted that other MACT rules (*e.g.*, pharmaceuticals and pesticide active ingredients) allow the continued use of existing controls that have a lower efficiency than the standard. One commenter also indicated that regenerative thermal oxidizers (RTO) have difficulty in achieving 98 percent control.

Response: Since the final rule provides less stringent control requirements for control devices that can recover materials for reuse, we assume that the bulk of the concern related to control devices is for incinerators that will not meet 98 percent. Devices such as RTO are typically installed to control high air flow, low concentration streams. Therefore, while this type of device may not meet the 98 percent control requirement, the final rule also allows sources to demonstrate compliance with an outlet concentration limit, which may be achievable by an RTO when the uncontrolled HAP concentration in the vent stream is low. We note also that the batch vent requirements contain options for monitoring parameters in lieu of correcting outlet concentration for 3 percent oxygen (O_2). Finally, the final rule includes a provision that may enable some sources to group nondedicated processing equipment together and comply only with the requirements in the rule that apply to the primary product made in the equipment.

E. Storage Tank Standards

Comment: Several commenters indicated that the proposed definition of "storage tank" is inconsistent with the ICR, MACT floor calculations for both storage tanks and process vents, EPA applicability determination documents, and other MACT rules; likely to lead to compliance confusion; and likely to force replacement of many existing floating roof tank controls at huge costs for negligible benefits. Many of the commenters recommended revising the storage tank definition to match the actual assignment of tanks in the storage tanks database and recalculating the MACT floor.

Response: The definition of "storage tank" in the proposed rule was based on the treatment of process tanks and storage tanks in the pharmaceuticals industry, a predominantly batch industry. The basis for only considering raw material feedstock tanks as true storage tanks was that the product tanks were seldom of the size at which the storage tank capacity cutoffs were set in many rules, and that a predominant number of tanks were used within processes as feed tanks from one unit operation to another. As such, emission events from these tanks usually would be calculated based on displacement resulting from filling the tank, usually on a per batch basis, and included in the operating scenario for an entire process. Emissions, therefore, were tied to the number of batches produced, as the material was transferred into and out of these tanks during each batch. We consider these tanks to be true process tanks and expect that the batch processors in the miscellaneous organic chemical manufacturing industry would agree with this treatment.

We recognize, however, that this industry contains significant numbers of continuous processors. We also recognize that this industry is more varied than the pharmaceuticals industry and that there are more tanks that are of a size and function that would be treated as storage tanks in other rules. For example, product rundown tanks and product storage tanks are not based on the number of batches, and material remains in the tank or is "stored" on a fairly continuous basis. The tanks are not filled and emptied during batch operations. These tanks are storage tanks and are recognized as such in the final rule.

We agree that the responses to the section 114 ICR would be based on the HON and NSPS definitions, and we have revised the storage tank definition to be consistent with the HON and NSPS. Although defined separately, the HON treats surge control vessels and bottoms receivers, types of tanks found in predominantly continuous processes that function in receiving material between continuous operations, exactly like storage tanks. We kept these terms and requirements in the final rule, but revised the definition of surge control vessel to be consistent with the definition of continuous process vent (*i.e.*, surge control vessels must precede continuous reactors or distillation operations). We also added a definition for "process tank" to clarify which tanks we would consider as part of the batch process vent standards. The changes do not affect MACT floors; they only change applicability under the storage tank standards or under the batch process vent standards.

F. Standards for Wastewater Systems

Comment: Numerous commenters urged elimination of the requirement to enclose sewers and tankage for conveyance to treatment of wastewater streams with primarily soluble HAP. The commenters stated that soluble HAP do not volatilize significantly from wastewater streams upstream of biological treatment, but the cost to suppress emissions would be significant. Some commenters suggested exempting from control those

wastewater streams that contain soluble HAP unless at least 5 percent of the total soluble HAP is emitted from the waste management units. Commenters were particularly concerned about this issue for the final rule because much more methanol is present in miscellaneous organic chemical manufacturing processes than in processes subject to the HON, particularly because 40 CFR part 63, subpart FFFF, applies to HAP that are used as solvents. Another commenter claimed the available data do not support a floor of HON-equivalent control for streams with HAP concentrations less than 10,000 ppmw.

Response: We considered the request for separate treatment of wastewater containing soluble HAP. We began by reviewing the miscellaneous organic chemical manufacturing wastewater database, and we determined that wastewater containing soluble HAP compounds are generally managed separately from wastewater containing partially soluble HAP compounds in this industry. This separate treatment by the industry justifies the evaluation of separate floors in accordance with the commenter's requests. For the 60 facilities in the miscellaneous organic chemical manufacturing wastewater database, there are a total of 364 records (streams), excluding streams with HAP that are not listed on Table 9 to subpart G of 40 CFR part 63 (the HON), HAP concentrations less than 1,000 ppmw, and HAP concentrations greater than or equal to 1,000,000 ppmw. Of this total, 192 of the streams contain partially soluble or a mixture of partially soluble and soluble HAP, and 172 of the streams contain only soluble HAP. Only 26 streams contain a mixture of soluble and partially soluble HAP.

When we reevaluated the floors separately, we found that for the partially soluble and mixed streams, data show that considerably more than 12 percent of the streams that meet either of the HON cutoff criteria also received treatment consistent with HON treatment requirements (*i.e.*, the best-performing miscellaneous organic chemical manufacturing sources are those that implement HON-equivalent procedures). Of the 53 streams with flowrates greater than 1 lpm and concentrations of partially soluble or mixed streams less than 10,000 ppmw, nine are managed and treated according to HON levels. Therefore, we revised the flow cutoff in the MACT floor from 10 lpm to 1 lpm for streams with concentrations greater than or equal to 1,000 ppmw and less than 10,000 ppmw; the other cutoffs of greater than or equal to 10,000 ppmw at any flowrate for partially soluble and mixed streams are unchanged. Another 42 streams had flowrates between 0.1 and 1.0, but only one was controlled. Therefore, we concluded that a sufficient number of streams below the cutoffs were not controlled to support a no emissions reduction floor determination.

We also identified a MACT floor for the 172 wastewater streams at 33 facilities that contain only soluble HAP. We ranked the 33 facilities based on the lowest concentration and flowrate of a wastewater stream that was managed and treated according to the HON requirements. The top five facilities were found to manage and treat all their soluble HAP containing wastewater consistent with the requirements in the HON. The median of the lowest concentrations in wastewater streams at these five facilities was found to be 30,000 ppmw. The lowest soluble HAP load for any stream at the five MACT facilities was 1,663 lb/yr (which we rounded to 1 tpy). Therefore, we determined that the MACT floor consists of the management and treatment requirements in the HON for wastewater streams containing at least 30,000 ppmw of soluble HAP and at least 1 tpy of soluble HAP. Wastewater streams with soluble HAP above these concentration and load cutoffs are considered Group 1 wastewater streams in the final rule. We also evaluated a beyond-the-floor alternative based on controlling streams with mixed HAP at flowrates greater than 0.5 lpm and streams that contain soluble HAP at concentrations greater than 15,000 ppmw. The total impacts of this alternative were determined to be unreasonable. Therefore, we set the standard for existing sources at the MACT floor.

For new sources, we determined the MACT floor for wastewater containing soluble HAP to be a concentration of 4,500 ppmw at the 1 tpy load. The 4,500 ppmw corresponds to the lowest concentration of a stream containing only soluble compounds that was managed and treated in accordance with the HON. The 1 tpy load cutoff was not lowered in going from the existing source standard to the new source standard because this level already represents the lowest load cutoff of any stream at the five MACT facilities and, therefore, represents the performance of the best-controlled similar source.

Comment: Two commenters indicated the proposed rule lacks criteria for evaluating affected wastewater streams from batch process units and specialty chemicals manufacture. One of the commenters suggested revising the rule so that the emission thresholds for wastewater are determined over a representative batch cycle. To accomplish this, the commenter suggested that the following definitions be added to the rule:

- "Annual average" means the average over a designated 12-month period of actual or anticipated operation of the MCPU generating wastewater, except for units that are flexible operations or part of flexible operations. For flexible operation units, "annual average" means the average for a standard batch that is representative of the designated 12-month period of actual or anticipated operation of the MCPU generating wastewater.
- "Standard batch" means a batch process operated within a range of average or typical operating conditions that are documented in an operating scenario. Emissions from a "standard batch" are based on the production activity or product that result in the highest mass of HAP in the wastewaters generated by the process equipment during the batch cycle.

The second commenter noted that the proposed rule refers to § 63.144(c) for establishing the annual average flowrate for wastewater streams (*i.e.*, total wastewater volume divided by 525,600 minutes in a year). The commenter supported this for continuous process units, but recommended that the rule use criteria from 40 CFR part 63, subpart GGG, for batch process units since the wastewater streams from batch operations may only be operational a few months per year.

Response: The format for applicability is annual average flowrate based on the potential maximum amount of operating hours per year (*i.e.*, 8,760). Although the procedure was developed for continuous processes, it can be applied to batch processes. When multiplied out, the total flow of wastewater equivalent to 1 lpm and 8,760 hr/yr equals 0.14 million gal/yr (530 m 3 /yr). We recognize that the proposed rule did not contain guidance on how to interpret annual average for batch processes although our definition of wastewater stream described a single wastewater stream as being discarded from an MCPU through a single POD. Our intent with this language was to include all wastewater streams from single processes that were discharged through a single POD as one single wastewater stream. In the HON, annual average concentration is the total mass of compounds listed in Table 9 to subpart G of 40 CFR part 63 that are in the wastewater stream during the designated 12-month period divided by the total mass of the wastewater stream during the 12-month period. There is no separate consideration in the HON for

multipurpose batch operations or POD that serve numerous processes because the equipment is part of a flexible operation.

For 40 CFR part 63, subpart FFFF, however, we based the MACT floor on data from wastewater streams that were developed based on our proposed definition of wastewater. Therefore, the definition of annual average is based on wastewater streams from a POD from a single MCPU. For flexible operations (*e.g.*, multipurpose equipment not dedicated to any single process), we have incorporated the concept of a family of materials that considers as a single product the manufacturing processes of multiple materials that are related. Additionally, we consider "nondedicated solvent recovery operations" as a single process. Therefore, in these two circumstances, the definition of wastewater stream should be based on the total mass and flow out of the POD from the sum of all operations considered within the family of materials or within the recovery process. In all other cases, the flow and concentration of HAP should be based on the total flow of wastewater and mass of HAP from all batches of a single process.

The final rule requires a manufacturer of a family of materials in flexible operation units to determine the annual average using a procedure consistent with that described by the commenter. Specifically, the worst-case product would determine the standard batch, and the total flow of wastewater would be based on the total flow of wastewater generated by all batches manufactured in any 12-month period. However, if materials manufactured in the flexible operations fell among more than one product not considered part of a family of materials, we would consider these separate processes, and the annual average concentration and flow would be limited to the characteristics of each process.

Comment: Consistent with comments on the definition of the miscellaneous organic chemical manufacturing process, one commenter suggested revising the definition of "maintenance wastewater" to clarify that wastewater from routine cleaning operations occurring within a batch process is not considered maintenance wastewater. Another commenter noted that some cleaning operations are performed for equipment preparation and to remove inorganic scale from the equipment on an occasional, though somewhat regular basis. The commenter observed that these operations are performed between batches, though not between every batch or even between batches of different grades. They are performed when maintenance is needed or plugging is evident. The commenter asked for clarification that the types of cleaning operations that do not generate maintenance wastewater are those performed between batches for the purposes of changing grades and not those done to prepare equipment for maintenance or to remove inorganic foulants.

Response: We agree with the commenters regarding the need to exclude non-routine cleaning operations from other process wastewater streams and have included them in the definition of "maintenance wastewater." This issue is analogous to the issue of including vents from routine cleaning operations as process vents and covering other types of events under the SSM provisions.

Comment: One commenter requested an exemption from the offsite certification requirement in 40 CFR 63.132(g)(2), (3) and (4) for any facility electing to discharge wastewater streams to a RCRA-permitted treatment, storage, and disposal facility (TSDF) under 40 CFR parts 264 and 265. The commenter asserted that a RCRA TSDF should be presumed to be acceptable compliance equipment for miscellaneous organic chemical manufacturing facilities, and this presumption should be explicitly stated in the final rule.

Response: We agree that RCRA TSDF satisfy the compliance requirements in the final rule. The proposed subpart FFFF explicitly stated that performance tests, design evaluations, and related monitoring, recordkeeping, and reporting would not be required when a hazardous waste incinerator is used to meet emission limits. This provision is retained in the final rule through the reference to § 63.988(b)(2), and it applies to offsite treatment facilities as well as affected sources. To simplify and clarify the requirements for offsite treatment facilities, the final rule states that the affected source may indicate in its notification of compliance status (NOCS) report that it is shipping the wastewater to an offsite treatment facility that meets the requirements of 40 CFR 63.138(h), and that the wastewater will be treated as hazardous waste; this documentation may serve as the certification from the offsite treatment facility.

G. Standards for Equipment Leaks

Comment: Three commenters stated that the docket does not support our conclusion that the HON LDAR program is the MACT floor. Two of the commenters also opposed our approach of assigning a single LDAR program to each facility. They noted that facilities do not always use the same LDAR program for all of their processes. According to one commenter, there also are numerous errors and inconsistencies between various background memoranda, the section 114 ICR responses, and the equipment leaks database that EPA distributed to industry, with no documentation in the docket to explain the differences. After obtaining new information from some of the facilities in the database, the commenter saw no support for a determination that HON-equivalent controls establish the MACT floor (*i.e.*, of the estimated 1,220 processes, only 34, or 2.8 percent, appear to have HON-equivalent programs). The other two commenters indicated that the floor (and standard) should be based on either the LDAR program in the SOCMI NSPS (40 CFR part 60, subpart VV) or subpart TT of 40 CFR part 63 (the Generic MACT).

Response: After considering the comments and reviewing the available data, we decided to determine the MACT floor on a process basis because some facilities do not implement the same LDAR program for all of their miscellaneous organic chemical manufacturing processes. Therefore, we decided to reevaluate the MACT floor on a process basis. Before revising the analysis, we also reviewed the specific data entries that were disputed by the commenters.

Regrettably, the database that was made available to the industry was not consistent with the final database that we used to develop the MACT floor prior to proposal. As a result, many of the discrepancies identified by commenters are addressed simply by using the correct database.

We also reviewed other changes that the commenter recommended and made corrections to the database under the following two circumstances: when a process is subject to the HON so that only the batch process vent emissions are subject to subpart FFFF, and when a facility representative informed the commenter that a non-HON LDAR program or no program is implemented for a miscellaneous organic chemical manufacturing process. After making the revisions, we found 51 of 1,139 processes are controlled to the HON LDAR (*i.e.*, the best-performing LDAR program in use at miscellaneous organic chemical manufacturing sources), or 4.5 percent controlled. Based on this result, we could not justify a MACT floor at the HON level of control.

Therefore, we reexamined the processes subject to other LDAR programs to develop a revised MACT

floor. A few processes are subject to LDAR programs required by the State of Louisiana, but most other processes subject to LDAR programs are implementing various programs required by the State of Texas or the program in 40 CFR part 60, subpart VV. For this analysis, we considered the Texas programs and the subpart VV program to be essentially equivalent because they all require only sensory monitoring for connectors. These programs also are equivalent to the program in 40 CFR part 63, subpart TT. Only LDAR programs designated as audible/visual/olfactory (*e.g.*, not Method 21 monitoring) were not considered at least equivalent to subpart TT. We found that 236 of the 1,139 processes, or 21 percent, were controlled at least to the subpart TT level. Therefore, we set the floor based on the requirements of 40 CFR part 63, subpart TT.

Based on the revised MACT floor, we conducted an analysis of the cost of going above the floor to the 40 CFR part 63, subpart UU, program. In conducting this analysis, we revised our estimated uncontrolled emissions for our model processes by using the initial leak rates submitted by the industry in their comments. At the leak definitions of 500 ppmv for connectors and valves and 1,000 ppmv for pumps, we calculated leak rates of 0.35 percent for connectors, 6.47 percent for pumps, and 1.66 percent for valves from the data submitted by the industry. We also compared these leak rates and their resulting emission rates to data collected in the development of the Polymers and Resins IV NESHAP and found good agreement. The polymers and resins industry leak rates were 0.61 percent for connectors, 8.71 percent for pumps, and 1.4 to 1.8 percent for valves. To estimate reductions achieved by the LDAR programs, we assumed that the reduction achieved by the subpart UU program would be equal to the emissions estimated at the performance level of the program. We assumed that the subpart TT program would be half as effective as subpart UU for pumps, valves, and connectors, and that the reductions for pressure relief valves, open-ended lines, and sampling connections would be the same under both programs.

We also revised elements in our cost analysis to address commenter concerns. The revised analysis assumes that a facility required to implement an LDAR program will hire a subcontractor based on our understanding that this is the preferred and common alternative over the implementation of an in-house program. The analysis also made use of revised cost data from the project files of the Polymers and Resins IV NESHAP.

The revised cost analysis shows that for processes with continuous process vents, the cost of the subpart TT program (the MACT floor) is $3,200/Mg, the cost of the subpart UU program is $2,800/Mg, and the incremental cost to go beyond the MACT floor to the subpart UU program is $470/Mg. These costs are considered reasonable. Conversely, for batch processes, the costs of the beyond-the-floor option were determined to be unreasonable. Therefore, we decided to set the standard at the MACT floor for processes with only batch process vents, and we selected the beyond-the-floor option of subpart UU for processes with at least one continuous process vent.

Comment: Several commenters generally supported the pressure testing option in § 63.1036(b) of subpart UU, which requires that new or disturbed equipment be tested for leaks before use. However, the commenters are concerned that § 63.1036(b)(1)(iii) could be interpreted as requiring facilities to conduct leak tests whenever flexible hose connections are changed as part of a reconfiguration to make a different product or intermediate. The commenters stated that these leak tests would be burdensome because (1) changing flexible hoses to make different products may occur as frequently as daily or weekly, which would substantially increase the cost of conducting LDAR programs and take away from operating time, resulting in lost production and sales; (2) more frequent leak tests would also result in more emissions because the equipment must be purged to conduct the tests; and (3) flexible hoses that have been water tested would often have to be flushed with solvent prior to startup, which would add more turn-around time and increase waste generation. According to one commenter, connecting flexible hoses in different configurations is the type of "routine" seal breaks that were not intended to trigger LDAR pressure testing requirements. Thus, the commenters recommended revising § 63.1036(b)(1)(iii) to exempt all routine seal breaks of flexible hoses from LDAR requirements. One commenter also recommended that pressure testing be allowed as an option for sources that comply with the requirements in 40 CFR part 63, subpart TT.

Response: We agree with the commenters that pressure testing each time process equipment is reconfigured only by changing flexible hose connections at a transfer station is excessively burdensome and likely to lead to more emissions than it prevents. Therefore, the pressure test option in the final rule allows this type of routine disturbance without the requirement to conduct a new pressure test. Since the final rule allows compliance with the requirements of 40 CFR part 63, subpart UU, as an alternative to the requirements of 40 CFR part 63, subpart TT, an owner or operator may comply with the pressure testing option in subpart UU as an alternative to the requirements of subpart TT.

H. Standards for Transfer Racks

Comment: One commenter indicated the MACT floor for transfer racks was established incorrectly and stated that we have no section 114 ICR data to support the transfer racks MACT floor because this information was not requested for the miscellaneous organic chemical manufacturing source category. The commenter indicated that using transfer rack data from HON sources or Organic Liquid Distribution (OLD) NESHAP sources is not appropriate for the miscellaneous organic chemical manufacturing source category, even if it does streamline the compliance process. The commenter noted that the Group 1 requirements of subpart G of the HON apply to a different source category manufacturing different chemicals in continuous, generally high-volume processes. The commenter claimed we made a "leap of faith" in assuming that the emission and control data for one source category are appropriate to another totally distinct category. The commenter could find no documentation indicating that subpart G continuous process load rates and vapor pressure cutoffs are applicable to batch subpart FFFF facilities. The commenter argued that setting a MACT floor using "existing available data" from a different source category is inconsistent with CAA requirements and requested that an actual transfer rack MACT floor determination be made prior to establishing the subpart FFFF control requirements.

Response: The MACT floor was based on the HON requirements. We did not have any specific data from our source category, but we relied on information that many of the facilities in this source category are co-located with facilities subject to the HON. The commenter objected to our assumptions because the HON applies to continuous, high volume production processes. Although subpart FFFF applies to many processes, batch specialty chemicals are a major component of the source category, and we agree that individual products are typically manufactured in lesser volumes than typical products in the HON source category. However, we

note that transfer operations, which by definition consist of the loading racks for tank trucks and rail cars, are more specific to the size and type of vessel being loaded than the process that generates the products.

These tank trucks and rail cars are standard in size and configuration so that the same tank trucks and rail cars would be expected to carry material from either source category. Further, pumps, loading arms, and vapor collection and control equipment are not as much dependent on the process that generates the materials as the products themselves which are composed of either pure HAP or solutions containing significant amounts of HAP.

Our data indicate that 60 percent of the facilities that contain miscellaneous organic chemical manufacturing processes also contain processes subject to the HON. Additionally, we would expect that transfer racks located at these facilities would be used to load materials from both HON and miscellaneous organic chemical manufacturing processes. Therefore, we consider it reasonable to assume a MACT floor based on the requirements of the HON.

The HON standards were established based on the lowest yearly loading rates that are controlled in the source category. Because the HON source category manufactures at typically higher volume production than what would typically be expected in the miscellaneous organic chemical manufacturing source category, and control requirements are based on the rack weighted average partial pressure of HAP, it offers a conservative approach to the MACT floor when applied to the batch specialty chemical industry. Therefore, only transfer racks that load miscellaneous organic chemical manufacturing products containing significant amounts of HAP are affected by the control requirements.

I. Pollution Prevention

Comment: Three commenters stated that the pollution prevention (P2) option should be broadened to allow more nondedicated batch operations or groups of nondedicated batch operations to use P2 for compliance. The commenters maintained that calculating and tracking HAP factors for individual nondedicated processes would not be viable for small operations. One commenter was concerned that only dedicated solvent recovery operations may be included in a P2 demonstration; nondedicated solvent recovery operations may not be considered in conjunction with the processes for which they recover solvents for the P2 alternative standard. Similarly, another commenter stated that the proposal is not viable because waste solvents from numerous nondedicated batch processes are collected and refined at a central recovery unit, and § 63.2495(b)(2) of the proposed rule would preclude the merging of nondedicated solvent recovery with other processes. The commenter suggested including all of the operations in the calculation of a HAP consumption factor (including nondedicated recovery operations that receive and recover solvents for the operations). In addition, the commenter suggested that the production rate should exclude isolated intermediates to appropriately reflect the benefits achieved when measures are taken to eliminate isolation of intermediates. Because the boundaries are well defined, the commenter indicated that such an approach would be clearer to implement and enforce. To incorporate this approach, the commenter suggested adding a statement to the rule that says you may comply with the P2 option for multiple processes and associated recovery operations if the Administrator approves your P2 methodology submitted in the precompliance report.

Response: After examining the approach suggested by the commenters, we have concerns that it would not be consistent with the goals of P2 and also would not preserve the reductions in HAP consumption that would occur if the P2 alternative were limited to each product. The commenters suggested facilitywide groupings to demonstrate overall reductions in the HAP consumption factors. One of our major concerns stems from the fact that specialty chemical facilities will not manufacture the same products from the baseline years to the contemporaneous period. Under their suggested grouping concept, however, a baseline factor could be developed from a different set of products than those in the contemporaneous period. In this situation, a facility could demonstrate a reduction in the HAP factor by simply not manufacturing products that have high HAP consumption. Although these efforts could result in a net benefit to the environment, they are not considered P2 strategies and, therefore, an owner or operator should not take credit for these changes. Secondly, using the same groupings concept, a manufacturer could effectively reduce the overall usage of HAP in a production process in any given year, but increase the HAP factor for that product and still meet the grouping target reductions, but not the target reductions on individual product lines. This would effectively allow an owner or operator to comply with a P2 alternative that could increase the inefficiency and waste within a process. Therefore, combining processes or groups of processes as suggested by the commenters is not appropriate, and we have not revised the alternative per the commenter's requests.

We also clarified language regarding merging processing steps conducted offsite to onsite for the purposes of redrawing a process boundary and claiming a reduction in consumption. For example, a solvent recovery step conducted offsite or as part of another process cannot later be moved onsite or to another process and used to claim a reduction in consumption. Such a strategy does not result in true emission reductions, but rather is a result of moving process boundaries.

Comment: Several commenters were concerned that the proposed P2 option would not allow for the generation of HAP other than HAP being used in the process. They noted that based on the definition of "consumption" and § 63.2495(b) of the proposed rule, if the HAP used by the process are not the same as those generated in the process, then the generated HAP must meet the otherwise applicable standards. One commenter suggested revising the definition of consumption to include HAP generated in the process, and the other commenters suggested incorporating generated HAP into the calculation of the HAP factor or the target HAP reduction.

Response: We do not agree with the suggested changes. The P2 alternative specifies that HAP generated in the process that are not introduced into the process and part of the consumption factor must be controlled per the standard requirements. This restriction is needed to ensure that reductions anticipated from the implementation of the alternative will occur. Consider a situation where the incoming quantity of HAP is considerably less than the amount of HAP generated in the process. Further, suppose the entire quantity of HAP generated in the process is emitted through a process vent (*i.e.*, no waste or wastewater). If the P2 alternative were to allow the quantity of HAP generated to be considered as part of the consumption factor, then the P2 standard could be met by capturing and recovering only 65 percent of the HAP emitted, which may not preserve the reductions we anticipated from the implementation of the standards as written. Therefore, we have not

modified the alternative according to the commenters' requests.

J. Initial Compliance

Comment: Several commenters indicated that the proposed requirements to complete initial compliance demonstrations and submit the NOCS report by the compliance date are unworkable and unreasonably and unfairly shorten the 3-year compliance period. Based on the commenters' experience, the entire 3-year period is needed to permit, plan, design, procure, install, and shakedown the equipment necessary for MACT compliance. In addition, the 150-day period after the compliance date that other rules allow before the NOCS report is due allows facilities to properly test their control systems, perform necessary shakedown operations, and set the parametric operating limits using actual data. The commenters requested that the final rule defer to the General Provisions regarding the timeline for initial compliance demonstrations and allow the NOCS report to be submitted no later than 150 days after the compliance date. Another commenter requested that area sources that become major sources be allowed up to 3 years to comply with the final rule because the level of effort would be the same as for any existing source when the rule is promulgated.

Response: We accept the argument that some facilities with numerous processes and controls may need the full 3 years from the promulgation date to the compliance date to bring all of the equipment on-line before completing the initial compliance demonstration. Therefore, we decided to change the due date for the NOCS report. In the final rule, the NOCS report for all sources, including area sources that become major sources, is due no later than 150 days after the compliance date. In addition, the final rule specifies that the compliance date for area sources that become major sources is 3 years after the area source becomes a major source.

Comment: Several commenters indicated that references to § 63.1257(d)(2)(ii) of the pharmaceutical MACT in the proposed rule inappropriately restrict the use of engineering assessments. The commenters indicated that the rule should not require sources to demonstrate that the calculation methods specified in the rule are not appropriate in order to be allowed to calculate uncontrolled HAP emissions using an engineering assessment. The commenters also objected to language in § 63.1257(d)(2)(ii) that restricts the use of modified equations to those that the source can demonstrate have been used to meet other regulatory obligations. The commenters indicated that they should only be required to show that the selected method for determining uncontrolled HAP emissions is appropriate, and that it has no impact on the applicability assessment or compliance determination.

Response: We did not revise the restrictions on the use of the modified equations as requested because the suggested changes would not maintain our objective of having a replicable compliance protocol that is applied consistently across the source category. Therefore, the final rule, like the proposed rule, restricts the use of engineering assessments to situations where the equations are not appropriate.

Comment: Several commenters requested that the procedures for calculating uncontrolled HAP emissions be modified in the final rule so that it represents "post condenser" emissions if the condenser is recovering HAP for reflux, reuse, or use as a fuel. The commenters stated that, for many types of emission events, the proposed equations would require the use of the vessel temperature rather than the temperature of the receiver that receives condensed liquid. The commenters indicated that the procedures ignore the emission reduction realized by the condenser, inflates the uncontrolled emissions, and is inconsistent with the MACT floor database.

Response: We disagree with the suggested change. Our position is that uncontrolled emissions should be determined at the point the vent stream leaves the process and prior to entering any control device. A condenser that meets the definition of "process condenser" is considered integral to the process, and uncontrolled emissions are calculated at the outlet of the condenser. Process condensers must initiate vapor-to-liquid phase change in an emission stream from equipment that operates above the boiling or bubble point, including condensers located prior to a vacuum source. All other condensers serve primarily to reduce or remove air pollutants, with or without some product recovery benefits; therefore, uncontrolled emissions should be calculated prior to the condenser. This approach does not inflate uncontrolled emissions; it characterizes them properly. Furthermore, if a condenser is determined to be an air pollution control device, the removal efficiency is included as part of the overall control efficiency for the process; it does not ignore the emission reduction realized by the condenser. Finally, we consider the approach to be consistent with our database because we provided clear instructions with the ICR regarding how to report emissions from condensers, and we trust that most respondents followed those instructions.

Comment: Two commenters objected to the proposed requirements for testing control devices that treat emissions from batch process vents under absolute or hypothetical worst-case conditions, as described in the Pharmaceutical Production MACT (§ 63.1257(b)(8)). One of the commenters was concerned that facilities would be forced to generate unwanted or off-specification material in order to satisfy the requirements for worst-case conditions. This commenter requested that the final rule either defer to the General Provisions at § 63.7(e)(1), which require testing under normal operating conditions, or replace paragraph § 63.2470(c) in its entirety with a reference to the performance test requirements of 40 CFR part 63, subpart SS. The second commenter stated that the worst-case testing provisions are technically infeasible and unjustified based on existing EPA regulations. That commenter noted that the Polymers and Resins IV NESHAP recognized this issue and require sources to test under worst-case actual production conditions as opposed to hypothetical worst-case conditions (*i.e.*, § 63.1325(c) of subpart JJJ).

One commenter also suggested that worst-case conditions may not always occur at the highest pollutant loading. According to the commenter, the control efficiency of thermal oxidizers generally increases as the loading increases, and the more challenging compliance demonstration would, therefore, occur under actual/normal operating conditions when the pollutant loading is changing several times over the course of a batch cycle. The commenter requested that the final rule allow facilities the option of using either the Polymers and Resins IV NESHAP testing protocols or the Pharmaceutical NESHAP testing protocols as a site-specific election in the pre-test protocols that facilities must submit prior to testing.

Response: We disagree with the commenters' suggestion that sources be allowed to conduct performance tests under "normal operating conditions." Specifically, we disagree with a commenter's contention that operators would be forced to generate unwanted or off-specification material in order to satisfy the requirements of worst-case conditions. The final rule, like the proposed rule, allows the source to test under "hypothetical worst-case conditions" as an alternative to testing under absolute worst-case conditions. Hypothetical worst-case conditions are

simulated test conditions that, at a minimum, contain the highest HAP load of emissions that would be predicted to be vented to the control device based on an emission profile developed by the owner or operator. For example, an owner or operator could arrange to boil off a more volatile compound than those actually used in processes in separate equipment that can be connected to the ductwork upstream of the control device (if the emissions profile shows that this would represent worst-case conditions for the control device) and then test the control device. In this example, the owner or operator would not have to manufacture any unplanned products or generate products that do not meet normal specifications.

Also, when sources test under worst-case conditions, this should eliminate (or at least reduce) the need for any retesting at a later date when conditions change. If a source tested under "normal operating conditions," then any change from these conditions could/should trigger a need to retest the source under the "revised" normal operating conditions. The concept of worst-case conditions allows sources to anticipate potential changes so that only one (initial) test is generally required.

We agree with the commenter's assertion that worst-case conditions for thermal oxidizers may not occur at the highest pollutant loading. One extreme is when inlet concentrations are low (less than 1,000 ppmv). For these inlet conditions, the final rule allows compliance with a 20 ppmv outlet concentration limit instead of requiring 98 percent reduction. For streams with higher concentrations, higher loads are likely associated with higher flowrates. As the flowrate increases, residence time in the combustion chamber decreases, which could reduce performance. Therefore, we require the test at highest load.

Comment: One commenter stated that facilities should be able to use the results of compliance testing in one reactor configuration done under another MACT standard for an identical configuration regulated under 40 CFR part 63, subpart FFFF, even if the HAP vent to two separate, yet identical control devices.

Response: The final rule does not allow sources to "borrow" test results from one control device and apply those results to another "identical" control device. Factors other than the design of a control device can affect its performance and, therefore, each control device must be tested separately.

Comment: One commenter requested that we allow facilities the option of using EPA Method 320 for any initial compliance option for batch or continuous streams and allow the use of EPA Method 320 for continuous emission monitoring systems (CEMS) that monitor HF, other fluorochemicals, and halogenated compounds in addition to those that monitor HCl.

Response: We agree with the commenter that EPA Method 320, Fourier Transform Infrared (FTIR), is an acceptable method to demonstrate compliance for any type of batch or continuous vent stream. Therefore, the final rule includes EPA Method 320 as an option for measuring any of the listed HAP in a vent stream. We note, however, that unless Method 320 has been validated at a "similar source," the tester must validate Method 320 for that application by following the procedures in Section 13 of Method 320. To clarify the requirements for CEMS, § 63.2450(g)(1)(i) of the final rule specifies that a monitoring plan is required for CEMS other than an FTIR meeting Performance Specification (PS) 15 to measure hydrogen halide and halogen HAP, rather than only HCl.

Comment: Three commenters requested changes and clarification of the requirements for establishing operating limits. One commenter requested that the requirements be consistent with those in § 63.1334(b)(3) of 40 CFR part 63, subpart JJJ. A second commenter interpreted the proposed language to mean that an average is calculated from the values of the three test runs and then an engineering analysis may be applied to establish an operating limit that accounts for expected process variation. That commenter also requested a description of the process to be used and the timeframe under which the Administrator will conduct the review and approval of operating limits established in accordance with § 63.2470(e)(3)(i) of the proposed rule.

A third commenter took issue with the requirement that the operating parameter(s) be set at the average value measured during the performance test. The commenter noted that other chemical industry regulations allow the measured value to be adjusted based on engineering assessment and claimed that this is critical because performance tests must be run at representative conditions because of process variability, production schedules, and ambient conditions, e.g., a condenser may be tested on a cool day but the outlet temperature for compliance must reflect the hottest day as well.

Response: The final rule references the procedures in 40 CFR part 63, subpart SS, for establishing operating limits, except that for control devices used for batch process vents, § 63.2460(c)(3) specifies additional procedures for setting the limits. Although the provisions differ slightly from what is described by the third commenter in that the performance test must be conducted at worst-case conditions, owners or operators can utilize engineering assessments to develop either a single limit for the entire process or multiple levels for different emission episodes within the process. These requirements ensure that the performance test captures challenging conditions that are not always present because of the variable nature of batch vents. If no Group 1 batch process vents are vented to the control device, then operating limits may be set using the results of the performance test and engineering assessment procedures as specified in subpart SS and consistent with the procedures described by the commenter. For batch process vents, we consider it appropriate that the initial compliance procedures in 40 CFR part 63, subpart FFFF, be consistent with the procedures in 40 CFR part 63, subpart GGG.

The final rule explicitly states in § 63.2460(c)(3) that operating limits based on the results of performance tests supplemented by other information must be reported in the source's precompliance report and approved by the Administrator. However, operating limits based on the average of the three test runs do not require preapproval. The final rule, like the proposed rule, also requires the owner or operator to submit in the precompliance report the test conditions, data, calculations, and other information used to establish operating limits in accordance with § 63.2460(c)(3). The precompliance report will be approved or disapproved within 90 days after receipt by EPA.

Comment: Several commenters indicated that the proposed rule did not address situations where a process has both batch and continuous unit operations or cases where batch vents and continuous vents are combined into a common header system. Another commenter suggested that batch vents manifolded together with continuous process vents should be treated as continuous process vents. Two of the commenters suggested that we resolve the issue of combined vent streams by deferring to 40 CFR part 63, subpart SS, for regulation of process vents. One commenter noted that subpart SS contains language at § 63.982(f) that governs how compliance with manifolded vents is determined and requested that this concept also be extended to allow for control devices that control vents subject to more than

one MACT standard, where completion of a successful compliance determination for one standard meets the compliance determination requirements of the other MACT standards where the control device controls similar HAP. Other commenters suggested that we allow compliance demonstrations for combined streams similar to the provisions under the Generic MACT for the Polycarbonate Production source category (40 CFR part 63, subpart YY), and add a definition of "combined vent stream" based on the definition in 40 CFR 63.1101 (subpart YY).

Response: The final rule clarifies requirements for combined streams in a manner similar to that described in § 63.982(f), but extends these requirements to deal with batch process vents and wastewater vent streams. For a combined stream, if any of the continuous process vent streams within the aggregated stream would be Group 1 by themselves and the batch streams are not Group 1, then the provisions of subpart SS may be followed in demonstrating 98 percent control of the combined aggregate stream. If a combined stream contains Group 1 batch process vents, then the initial compliance provisions for batch process vents must be followed in demonstrating 98 percent control of the combined aggregate stream. Also, the final rule does not allow an option to raise the TRE above 1.0 using a recovery device.

Subpart SS requires that the performance test be conducted at maximum representative operating conditions and only over the batch emission episodes that result in the highest organic HAP emission rate that is achievable during the 6-month period that begins 3 months before and ends 3 months after the compliance assessment. In contrast, the initial compliance provisions for batch process vents provided in the proposed rule would require that the test be conducted at worst-case conditions. For industries where products and operations remain fairly constant, there should be no significant difference between the "worst-case conditions" described by the batch process vent initial compliance provisions and the "maximum representative" conditions required by subpart SS. However, for control devices that might see a wide variability of products and emission stream characteristics, such as those in the miscellaneous organic chemical manufacturing industry, the test required by subpart SS may not be representative at a later date when products have changed. Therefore, compliance with the batch testing provisions is a more comprehensive requirement, and we are inclined to retain it under most circumstances. However, in cases where the combined stream includes Group 2 batch process vents and no Group 1 batch process vents, we agree that owners and operators should be allowed to follow the compliance demonstration requirements of subpart SS.

A second issue occurs when combining streams changes the characteristics of the aggregate stream such that less emission reduction may occur. Because control requirements are 98 percent under both the batch provisions and continuous (subpart SS) provisions, this is not an issue for streams routed to control devices. However, for recovery devices, there are differences between meeting 95 percent recovery under the batch process vent provisions and meeting a TRE index under subpart SS. For example, the overall required emission reductions could be lessened by combining a number of low-concentration batch streams, that would not trigger control under the batch requirements, with a rich continuous stream that would require significant control or recovery of material by itself, which would raise the outlet TRE value at the outlet of the recovery device and allow use of an ineffective recovery device and no further control. Similarly, emission reductions could be lessened by aggregating rich batch vents (with uncontrolled emissions of greater than 10,000 lb/yr) with continuous vents and allowing less than 95 percent control by meeting the TRE. In either case, the use of a recovery device to raise the TRE index above 1.0 could result in actual emissions above the level required had the streams not been aggregated and, therefore, we are not allowing this option. Thus, all Group 1/Group 2 determinations for vent streams must be made prior to aggregation and prior to any recovery device.

K. Ongoing Compliance

Comment: One commenter requested that the monitoring provisions be modeled after 40 CFR part 63, subpart SS, for continuous vents, and that we establish a similar cost-effective level for batch process vents. Another commenter stated that the requirements for continuous parameter monitoring systems (CPMS) are more fully and correctly covered in subpart SS and that the periodic verification requirements of § 63.2470(f) are duplicative of title V, wasteful, and unnecessary.

Response: We decided to streamline the compliance procedures and promote consistency among rules by referencing subpart SS in its entirety for most of the monitoring requirements. For batch process vents, however, we retained some additional monitoring provisions from the proposed rule that are based on requirements in subpart GGG (the Pharmaceuticals Production NESHAP). One of these provisions allows the owner or operator to set monitoring parameter values (*i.e.*, operating limits) at levels other than what were obtained from the performance test.

A second provision consistent with subpart GGG is the "periodic verification" procedure for control devices with inlet HAP emissions less than 1 tpy (§ 63.2460(c)(5) in the final rule). We do not agree with the suggestion that title V periodic monitoring requirements are duplicative for control devices with less than 1 tpy HAP load. The title V periodic monitoring requirements in 40 CFR 70.6(a)(3)(i)(B) apply only where an underlying applicable requirement such as NESHAP require no monitoring of a periodic nature. Thus, the title V periodic monitoring requirements will not apply where the monitoring requirements of subpart FFFF do apply.

A third provision based on subpart GGG is the option to establish averaging periods over either an operating block or an operating day. This provision may be useful if each batch is not always completed within an operating day or when an owner or operator elects to set multiple operating limits for different emission episodes.

Comment: One commenter stated that the proposed monitoring and reporting requirements do not meet the enhanced monitoring requirements as set forth in section 114(a)(3) of the CAA and, therefore, are "arbitrary and capricious." The commenter indicated that some sources are exempted from "any truly effective monitoring strategy" and that "sources with greatest HAP emissions, which fall outside the MACT floor due to size, have loosest monitoring requirements."

Response: We disagree with the commenter's assertions. The final rule, like the proposed rule, requires monitoring of all control devices. To minimize the burden on small operations (*e.g.*, small control devices controlling batch process vents), the monitoring requirements differ for lower-emitting sources; however, these sources are not "sources with the greatest HAP emissions." In addition, § 63.2525(e) of the final rule requires recordkeeping of emission points that fall outside of the MACT threshold for control to be sure that these points remain below the threshold.

Comment: Two commenters took issue with the monitoring requirements for catalytic oxidizers. The first commenter claimed that testing of the catalyst activity is unnecessary (as long as the temperature differential is maintained, the catalyst is effective); is inconsistent with the requirements under other rules that frequently share the device; and would force annual outages of the control device for sampling with significant negative environmental impacts and costs. The commenter recommended that the monitoring requirements for catalytic oxidizers be based on the 40 CFR part 63, subpart SS, requirements, which are based on the HON requirements. The other commenter suggested that vendor guarantees/warranties for catalytic incinerators be allowed as an alternative to the annual catalyst test or quarterly temperature differential check. This commenter noted that some catalyst vendors will supply a warranty if certain work practices are followed, such as raising the inlet temperature according to a set schedule. This commenter's experience indicated that temperature differential set at maximum load across the bed is not a particularly good indicator of catalyst activity for a variable process vent stream.

A third commenter expressed support for the monitoring requirements for catalytic oxidizers in the proposed rule, but requested that we make it clear that the catalyst activity test is not the only compliance alternative allowed and define what an annual catalyst test entails. The commenter further stated that, if a performance test must be done annually, EPA should consider if the cost of a performance test (*e.g,* $15,000) can be justified annually. If verifying the catalyst activity does not require a performance test, then the commenter stated EPA should establish guidelines on how to conduct the annual test.

Response: We agree that maintaining a temperature differential across the bed is evidence that the catalyst is effective, and it is a valid means of demonstrating ongoing compliance. It also is the requirement specified in subpart SS and many other rules and by referencing subpart SS, it is included in the final rule. However, we also included the catalyst test option from the proposed rule because, as one commenter points out, it is difficult to maintain the required differential across the catalyst bed when the organic load into the catalytic incinerator fluctuates, even though it may actually still be achieving the same reduction efficiency. This could be a particular concern when the initial performance test must be conducted under worst-case conditions, which generally is the maximum load. This option requires catalyst bed inlet temperature monitoring and an annual catalyst activity level check. When monitoring only the inlet temperature, the catalyst activity level check also is needed; unlike thermal oxidizers, catalytic oxidizer performance cannot be ensured simply by monitoring the operating temperature. Catalyst beds can become poisoned and rendered ineffective without any apparent change in operation. An activity level check can consist of passing an organic compound of known concentration through a sample of the catalyst, measuring the percentage reduction of the compound across the catalyst sample, and comparing that percentage reduction to the percentage reduction for a fresh sample of the same type of catalyst. Based on information from a company that offers such services, the cost is less than $800.

We do not agree that vendor guarantees based on following specific work practices are an acceptable alternative for monitoring the performance of catalytic oxidizers. Our experience is that the performance of air pollution control devices can degrade over time if they are not properly maintained, and that most owners and operators try to follow the vendor's recommended work practices as a preventative measure. In some cases, the vendor guarantees are only valid during the first year of operation of the control device. More importantly, basing compliance solely on vendor guarantees (that are tied to work practices) would mean that an "unexpected" deterioration in the performance of the catalytic oxidizer would go undetected and unreported because no direct monitoring of the catalytic oxidizer would be performed. Therefore, the final rule does not include the suggested alternative.

Comment: Three commenters stated that the requirement for continuous pH monitoring for caustic scrubbers is unwarranted and often impractical. For batch operations, these commenters stated that it should only be necessary to verify that the scrubber is operating properly just before and just after each batch. The commenters also asserted that continuous pH meters are often unreliable in harsh service conditions and are subject to plugging, corrosion, or contamination.

Two commenters stated that measurement of pH is not appropriate for caustic scrubbers because most, if not all, have a pH near 14, which makes the measurement irrelevant. According to the commenters, the titration curve is typically so steep that the pH measurement is not useful in controlling the scrubber. These commenters requested that the final rule be written to allow the measurement of caustic strength without the need to request EPA approval; otherwise, numerous facilities will need to request approval to measure caustic strength daily in lieu of daily pH monitoring, which would appear to place an undue burden on facilities and the regulatory organizations that must review the site-specific plans.

Response: As previously noted, the final rule references the monitoring requirements in subpart SS. For all halogen scrubbers (including caustic scrubbers), § 63.994 requires continuous pH monitoring. We have decided to retain the requirement for continuous monitoring in the final rule. This approach maintains consistency with other rules that reference subpart SS. It also addresses the commenters' concern that the steep titration curve makes pH a poor parameter for daily monitoring when pH is normally about 14 (*i.e.*, for systems where the recirculating scrubber solution is replaced on a batch basis rather than continuously adjusted to maintain relatively constant conditions). Finally, we have decided to allow continuous measurement of caustic strength at the scrubber outlet as an alternative to the continuous monitoring of pH because caustic strength is directly related to pH.

Comment: Many commenters objected to the requirement to calculate a daily 365-day rolling summation of emissions to demonstrate compliance with the 10,000 lb/yr limit for batch process vents. According to these commenters, sources should be allowed to calculate a 12-month rolling summation instead of the daily summation because daily calculations would be burdensome, particularly for facilities manufacturing many products or products with emissions well below the limit. One of the commenters also suggested replacing the 365-day rolling summation calculation with methodology, like in 40 CFR part 63, subpart JJJ, whereby the highest-emitting batch recipe for any given product is determined and the number of batches are recorded to demonstrate that a process has less than 10,000 lb/yr uncontrolled emissions. Two commenters also are uncertain how to calculate daily emissions from batch processes that are carried out over several days. Another commenter indicated that the existing monitoring and recordkeeping requirements in title V and/or state minor new source review permits are sufficient to demonstrate compliance with the limit.

Response: In order to demonstrate continuously that uncontrolled organic HAP emissions from a process have not exceeded 10,000 lb/yr, the proposed rule would require daily calculations of the emissions in the preceding 365 days. It appears that the commenters interpreted this requirement to be much more involved than we intended. We expected that, as part of the initial compliance demonstration, an owner or operator would determine the uncontrolled batch process vent emissions for a standard batch and divide this value into 10,000 to determine the number of batches that could be run in a 365-day period. One way to demonstrate continuous compliance would be to track the number of batches produced each day and show that the running total number of batches for the preceding 365 days does not exceed the number calculated during the initial compliance demonstration. The only potentially complicating twist to this process is that the total has to be adjusted to account for any difference in emissions when a nonstandard batch is operated, but we expect such events to be uncommon.

The final rule retains essentially the same requirement as the proposed rule because daily summations are needed to demonstrate continuous compliance, and we do not consider the demonstration to be unduly burdensome. However, upon consideration of the comments, we have decided to make three changes in § 63.2525(e) in the final rule to clarify our intent and perhaps reduce the burden. First, to address the situation of a batch that is run during more than a single calendar day, we specify that the record that the batch was run should be assigned to the day the batch is completed. Second, we agree that physically calculating the summations does not need to be performed each day, provided the necessary data are collected in an appropriate fashion so that each of the daily calculations can be performed at a later date. The final rule allows the calculations to be performed monthly. Note that each day that exceeds the limit is still a separate deviation. Finally, we edited the language to clarify that alternative records that correlate to the total emissions, such as the number of batches, may be maintained.

Comment: Several commenters expressed concerns with the proposed quality assurance/quality control (QA/QC) requirements for continuous parameter monitoring and requested that they be removed from the rule. One commenter indicated that the proposed QA/QC requirements are being introduced in a piecemeal fashion while they are still evolving, are technically unworkable, impose substantial burdens for no apparent benefit, significantly reduce monitor availability, may have unfavorable environmental impacts, and may create safety concerns. In addition, the commenter indicated that the proposed design and data availability requirements overlap with or conflict with existing language in subpart SS. The commenter noted that we decided not to promulgate similar QA/QC requirements in subpart SS. The commenter indicated that the justification for not adopting the requirements in subpart SS is correct and should be applied for subpart FFFF as well. Other commenters also noted that EPA's Emissions Measurement Center staff and industry are working to develop QA/QC procedures for parametric monitoring, and they recommended relying on requirements in existing rules until those efforts are finalized. One commenter considered the proposed QA/QC requirements for pH probes and flow meters to be particularly impractical and burdensome.

Response: As mentioned previously, the monitoring requirements in the final rule are based largely on subpart SS and, thus, the sections of the proposed rule referenced by the commenters (*i.e.*, § 63.2475(c) through (f)) no longer apply. We have deleted these QA/QC requirements for the same reasons we decided not to implement similar proposed QA/QC requirements in subpart SS (67 FR 46260, July 12, 2002). Specifically, we are currently developing performance specifications for CPMS to be followed by owners and operators of all sources subject to standards under 40 CF® part 63, which includes subpart FFFF. Also, subpart SS currently specifies requirements for CPMS, and the requirements of subpart SS are referenced by 40 CFR part 63, subpart FFFF. Even though they may not be as specific as those proposed, we decided it would be premature to promulgate performance specifications for subpart FFFF when the performance specifications that would ultimately be promulgated for all 40 CFR part 63 may be significantly different.

Comment: Several commenters objected to the proposed requirement in § 63.2475(g) to install, calibrate, and operate a flow indicator at the inlet or outlet of a control device if the flow to that control device could be intermittent. One commenter recommended that § 63.2475(g) be deleted because the closed-vent system bypass monitoring provisions of subpart SS already indicate whether a control device is being bypassed. Similarly, the second commenter questioned the need for flow indicators and asserted that if the concern is diversion of the vent to the atmosphere, then this prohibition should be so stated. That commenter was also concerned that, since essentially all batch process vents have intermittent flows, the requirement for flow indicators on vents with intermittent flows translates into the installation of numerous flow indicators with high QA/QC costs. The commenter noted that car seals or monthly inspections are allowed in other rules and requested that the flow indicator requirement be withdrawn, or that we explain how the expense in maintaining such devices translates into an environmental benefit. A third commenter also questioned whether the intent was to detect no flow or to detect when a bypass is occurring. The commenter contended that detecting no flow for batch processes is not useful because the flows are intermittent. If the intent is to detect bypasses to the atmosphere, the commenter requested that the final rule incorporate text from 40 CFR 63.114(d)(1) and (2) to clarify the intent.

Two commenters requested that the final rule allow the following alternatives to the use of flow indicators: indicators of vent gas flow, such as duct positions or fan operation; and the use of on/off interlock type devices that are not subject to calibration. One commenter contended that maintaining records of an interlocked valve limit-switch position should be sufficient when the valve only opens to allow flow when pressure is above a specified level.

Response: The commenters are confusing the requirement in § 63.2475(g) of the proposed rule with the requirement in Item 4 of Table 5 of the proposed rule. Table 5 of the proposed rule would require a flow indicator in a bypass line to indicate any diversion of flow from the control device. On the other hand, the proposed requirement in § 63.2475(g) to install, calibrate, and operate a flow indicator at the inlet or outlet of a control device if the flow to that control device could be intermittent is for identifying periods when monitored parameter readings should not be included in the daily or block average. This provision was included because periods of no flow are equivalent to periods of non-operation (*i.e.*, the control device is not actually reducing emissions during these periods and, therefore, should not be used to demonstrate ongoing compliance).

Both provisions have been retained in the final rule. The requirements for

bypass lines are specified in 40 CFR 63.983(a)(3), which are referenced from § 63.2450 of the final rule. The requirement to use flow indicators to identify periods of no flow through control devices is specified in § 63.2460(c)(7) of the final rule. We also note that the final rule allows the use of car seals and lock and key configurations as an alternative to the use of flow indicators in bypass lines. Furthermore, the definition of "flow indicator" in 40 CFR 63.981 does not restrict the type of device that can be used as a flow indicator in a bypass line. However, we have not allowed seal mechanism alternatives in § 63.2460(c)(7) of the final rule because these techniques cannot identify periods of no flow through a control device.

The definition of "flow indicator" in 40 CFR 63.981 is also inadequate for the purposes of § 63.2460(c)(7) of the final rule because it includes any device that only indicates whether the valve position would allow gas flow to be present in the control device. Therefore, the final rule specifies that for the purposes of § 63.2460(c)(7), "flow indicator" means a device which indicates whether gas flow is present in a line. Also note that the required number of flow indicators required by § 63.2460(c)(7) is related to the number of control devices, not the number of batch process vents.

Comment: One commenter claimed that the requirement not to use periods of "no-flow" in data averages is impossible to meet because most regulated streams have many periods of no flow (*i.e.*, more than 25 percent of the time) and, thus, this requirement would force noncompliance with the data availability requirement. The commenter contended that no flow periods are only relevant when flow is the parameter being monitored (*e.g.*, scrubber flow). The commenter noted that, where the parameter being monitored is not flow, then as long as the control device is operating properly (*e.g.*, flare has pilot flame, combustion device is operating at or above its minimum temperature), the rule requirements are met, regardless of flow.

Response: We decided to retain the "no flow" provision in the final rule. This provision is consistent with 40 CFR part 63, subpart GGG. It was added to subpart GGG to ensure that a source would not incur a "deviation" from the operating limits during periods when there are no HAP emissions being routed to the control device. For the same reason, it is applicable to the miscellaneous organic chemical manufacturing source category as well. We also note that periods of no flow are excluded from the operating hours when calculating the 75 percent data availability requirement and, therefore, excluding these data will not result in non-compliance with the data availability requirements.

L. Recordkeeping and Reporting

Comment: Several commenters suggested moving the necessary recordkeeping elements from the definition of "operating scenario" to a new paragraph in the recordkeeping section (§ 63.2525). In addition, the commenters recommended excluding the following requirements from both the definition and the new recordkeeping section: a description of emission episode durations and a listing of vent-by-vent control levels for every operating scenario. Several commenters also expressed concern with the provision that a change in any of the elements of the definition constitutes a new operating scenario. They considered this provision burdensome because variations in some of the listed information (*e.g.*, a change in calculation and engineering analyses) can be construed as requiring separate operating scenarios even if the variation does not change the applicable requirements. One commenter stated that the manufacture of a new product in existing nondedicated equipment should not trigger a new operating scenario unless the compliance approach is different for the new product than it is for existing products. Furthermore, the commenter stated that reconfiguring equipment in a process or across processes should not in and of itself trigger a new operating scenario, unless it triggers new applicable requirements.

Response: After considering these suggestions, we decided to move the recordkeeping elements from the proposed definition to § 63.2525 of the final rule, but we did not change the recordkeeping elements themselves. We did not exclude the emission episode durations from the list of recordkeeping elements because this is an essential element in the calculation of emissions for events such as a purge or a vacuum operation. Note that if duration is not used in the calculation for a particular emission event or is not necessary in the compliance demonstration, there is no need to include it in the operating scenario. We did not exclude the requirement to specify vent-by-vent control levels because this information is important when batch process vents within a process are controlled to different levels. Also, because continuous process vents are regulated individually, it is important to identify the actual control level for each vent. If all vents are controlled to the same level, then a simple statement indicating the control level is all that is needed for the operating scenario.

We also clarify in § 63.2525 that records are required of only those elements that are applicable (*i.e.*, the level of detail required for some compliance options will be greater than for others). For example, for compliance with the 20 ppmv outlet concentration standard when worst-case conditions are defined by the conveyance system limitations rather than by the process, it is not necessary to provide emission calculations for vents that are routed to the control device.

Comment: One commenter recommended deleting the requirement to submit as part of the compliance report each new operating scenario operated during the reporting period. Several other commenters asked that we revise the language to specifically require only a listing of the new operating scenarios in the compliance reports. According to one commenter, operating scenarios duplicate title V requirements, which is unnecessary and confusing. Another commenter stated that the requirement to submit each new operating scenario could result in the generation of a significant quantity of information, especially for batch processors who have the potential for hundreds of different operating scenarios. One commenter stated that the requirement to submit operating scenarios as part of the compliance report when there are deviations is unwarranted. According to the commenter, while listing the scenarios under which a source was operating during noncompliance events may be necessary, listing all of the scenarios under which a process unit might be operating is excessive and unnecessary.

Response: The final rule clarifies requirements for documenting and reporting operating scenarios. Our position is that submitting operating scenarios is critical to enforcement of the final rule, as they provide much of the information required to demonstrate compliance. Information in operating scenarios also is the cornerstone of the management of change strategy that was developed to address the constantly changing processing environment associated with batch processors. Although this management of change flexibility is optional at the discretion of the regulatory authority, 40 CFR part 63, subpart FFFF, provides the framework for implementing the strategy. Therefore, the final rule retains the requirement that complete operating scenarios must be submitted.

However, we have written the final rule to clarify that only one copy of any operating scenario must be submitted. Specifically, we wrote the final rule to require that the actual operating scenarios for planned processes, rather than just a list of operating scenarios, must be submitted in the NOCS report. Any operating scenarios in the future for new processes must be submitted in the compliance report for the reporting period in which the operating scenario is first operated. The notification of process change, which for the final rule is included as part of the compliance report, must contain revised operating scenarios for changes to existing processes. We also eliminated the statement in the provisions for notification of process changes that specifies "a process change means the startup of a new process" because it is inconsistent with the above mentioned clarifications. Finally, we deleted the requirement to submit operating scenarios with other information about deviations in the compliance report because the operating log, by definition, is a listing of the scheduled operating scenarios, and a copy of the operating scenarios themselves would already have been submitted either as part of the NOCS report or in a previous compliance report.

Comment: According to the proposed definition, one type of deviation is any instance in which an affected source fails to meet any term or condition that is adopted to implement an applicable requirement in 40 CFR part 63, subpart FFFF, and that is included in the operating permit for any affected source required to obtain such a permit. One commenter recommended deleting this language from the definition because it appears to extend the definition to requirements imposed under title V, rather than subpart FFFF. For example, the commenter suggested that if a permitting authority imposes a throughput requirement on a storage tank subject to subpart FFFF or a NO_x limit on a control device used to comply with subpart FFFF, this language could be read to make any deviation of those limits reportable and a potential violation under subpart FFFF, as well as under title V.

Response: We have not deleted the cited language because we disagree with the commenter's interpretation that it extends deviations to requirements under title V. Paragraph (2) of the proposed definition of "deviation" is an important clarification. Sources are obligated under title V and 40 CFR part 70 to report as deviations any failure to meet "any term or condition that is adopted to implement an applicable requirement in [subpart FFFF] and that is included in the operating permit for any affected source required to obtain such a permit." As such, the paragraph does not add any additional obligations. However, it does clarify for source owners and operators reviewing subpart FFFF that this is their obligation for deviation reporting under title V.

Comment: Four commenters recommended using different terms or significantly changing the definition of deviation. Two commenters recommended replacing the term "deviation" with the term "excursion" throughout the rule to avoid confusion that could be caused because the proposed definition of deviation differs from the meaning normally ascribed to the term in the title V program. One commenter suggested using "excursion" to apply to situations where the monitored parameter is outside of the required range, and using the term "deviation" to represent an actual demonstrated excess emissions event or nonconformance with a published standard in the rule.

Response: We have not changed the terminology. According to the definition, a deviation includes any instance in which an owner or operator fails to meet any requirement or obligation established by 40 CFR part 63, subpart FFFF, including but not limited to any emission limit, operating limit, or work practice standard. An "excursion," as defined in 40 CFR part 63, subparts G and SS, is a failure to meet an operating limit. Therefore, excursions are a deviation under subpart FFFF.

Comment: One commenter asserted that the attempt to extend deviation reporting to work practices in § 63.2520(d)(5) and (e) of the proposed rule is unclear, arbitrary, and capricious. The commenter stated that each work practice standard itself identifies what has to be reported in the compliance report. According to the commenter, adding a new, undefined requirement to report "deviations from the requirements for work practice standards in Table 19" just adds confusion and appears to add a new arbitrary class of deviation that is not supported in any rulemaking record. In addition, the commenter was unsure how we expect facilities to measure deviations from some of the work practices (*e.g.*, fugitive monitoring) listed in Table 19. Therefore, the commenter recommended that we remove the requirement for deviation reporting for work practice standards from § 63.2520(d)(5)(i) and (ii), including the list of information items in § 63.2520(d)(5)(ii)(A) through (C) (operating time, deviations, and operating logs/scenarios). The commenter also recommended deleting the phrase "or work practice standard" from § 63.2520(e). This commenter stated that § 63.2520(d)(5)(ii)(B) and (iii)(D) and the availability of more detailed records are all that are needed to identify deviations.

Response: A deviation is defined, in part, as "any instance in which an affected source fails to meet any requirement or obligation established by this subpart, including * * * any * * * work practice standard." Specifically, a source must report "any instance" where it has not complied with any work practice standard. For instance, compliance with the work practice standard for equipment leaks includes monitoring and inspecting on the applicable schedule, monitoring for the correct leak definition, repairing leaks within the specified timeframe, and keeping records, as well as reporting the information specified in § 63.1018(a) of 40 CFR part 63, subpart TT, or § 63.1039(b) of 40 CFR part 63, subpart UU. We would also find this information useful in assessing compliance with the work practice standards. If a source failed to repair a leak within the specified timeframe, it would be required to report that as a deviation. However, we have decided that submitting operating logs is unnecessary for deviations from the work practice standard for equipment leaks.

Comment: One commenter requested clarification of the time period when deviations can occur. According to the commenter, it is not possible to have a deviation until operating limits and continuous monitoring system (CMS) parameters have been established. The commenter noted that, as provided in the General Provisions, compliance with these limits begins with the submission of the NOCS report.

Response: We disagree with the commenter's conclusion. Section 112(i)(3) of the CAA statutorily forbids allowing more than 3 years from the effective date of the standards to achieve compliance. Therefore, at any time after the compliance date, a source may be found out of compliance, even if that is before the NOCS report is due or the date that performance tests are conducted.

Comment: Two commenters recommended deleting the requirement to submit operating logs as part of the compliance report when there are deviations. According to the commenters, this requirement is unclear, in part because it does not define "operating logs," which could be

broadly interpreted and will mean different things to different people; it will not benefit EPA in compliance reviews because operating logs do not contain information relevant to a noncompliance event, and they may not reflect the actual cause of the event; and it is burdensome. As an example of the potential burden, one commenter noted that, for a source monitoring 50,000 components monthly for 6 months, a deviation from the equipment leak work practice standard would require a submittal of 4,500 pages of operating logs (based on 300,000 component readings at 66 lines per page).

Response: The operating log, which is a record required by § 63.2525(c) of the final rule, is simply a schedule or list of the operating scenarios that have been run. We clarified this requirement in the final rule by stating it is to be "updated each time a different operating scenario is put into operation." The reporting requirement in § 63.2520(e)(5)(iii)(K) of the final rule has also been written to clarify that the operating log is only required for days during which deviations occurred. Furthermore, since deviations of the work practice standard for equipment leaks are unlikely to be associated with a single operating day, the final rule specifies that logs do not have to be submitted for such deviations.

Comment: Two commenters recommended deleting the precompliance report. One of the commenters noted that a precompliance report is not required by the HON. According to the second commenter, the precompliance report duplicates the review and approval process of title V and the content of the NOCS report and greatly reduces available compliance time. The commenter also argued that the precompliance report is unworkable because it requires data that can only be obtained from the performance test and from operating experience.

Response: We contend that the precompliance report is a valuable tool for the regulatory agency responsible for making compliance determinations for the affected source. Its purpose differs significantly from the compliance plan that is part of the title V requirements. It provides an enforcement official or inspector with some initial background information about the process being controlled, the types of emissions associated with the process, corresponding control equipment, and the monitoring parameters that have been or will be correlated to the process conditions.

A precompliance report is not required for all facilities. The main purpose of the precompliance report is that it is the mechanism by which an affected source requests approval to use alternative monitoring parameters, alternative techniques allowed in the final rule (*e.g.*, pollution prevention), and calculations or other compliance procedures that differ from those prescribed in the final rule. In return for this flexibility, it is important that alternative procedures be approved before the compliance date to ensure that there is no noncompliance resulting from selection of an unacceptable approach. Furthermore, many of the alternative techniques in the final rule are more complicated than standard requirements like those in the HON. Therefore, we have retained the precompliance report in the final rule.

Comment: Two commenters claimed that much of the information required to be submitted in the NOCS report is already required by the referenced subparts or the General Provisions, and the additional information that must be submitted under the proposed rule is excessive.

Response: In general, the final rule references the notification requirements in the applicable subparts (*i.e.*, 40 CFR part 63, subparts G, SS, and GGG) and specifies only the necessary exceptions and additional requirements. However, the overall requirements are the same as the proposal. We generally disagree with the commenter regarding the request to delete requirements beyond those in the referenced subparts. For example, requirements to identify operating scenarios are applicable to continuous operations. Because the operating scenario need only be as detailed as necessary to demonstrate compliance with the final rule, the operating scenario for a continuous operation may not require as much information as one for batch operations. If, for example, a continuous operation has only continuous process vents and storage tanks, no calculation of uncontrolled or controlled emissions is necessary to satisfy the requirement of § 63.2525(b)(7) of the final rule; instead, calculations and engineering analyses consist of TRE calculations for the continuous vents. We note that for every element of the operating scenario described in § 63.2525(b), information is required that is necessary to document how the source is complying with 40 CFR part 63, subpart FFFF. However, we have also made some changes and clarifications to the NOCS requirements. For example, for operating limits, only the resulting values are to be reported, and the procedure used to establish them is supporting documentation that is maintained as a record. For applicability, only the results of applicability determinations have to be submitted. Supporting documentation is maintained as a record under § 63.2525(a)(1).

Comment: Several commenters requested the following changes in the compliance reporting schedule and due dates: (1) Clarify when the first report is due because the proposed language appears to be internally inconsistent, (2) change the beginning date of the first reporting period to the date the notification of compliance status is due rather than the compliance date, and (3) allow 60 days rather than 30 days to prepare the report after the end of the reporting period.

Response: The final rule clarifies our intent that the first reporting period is to span a period between 6 and 12 months. To be consistent with other rules, we also decided to provide 60 days to prepare the compliance reports. Although we have decided to make the notification of compliance status due 150 days after the compliance date rather than by the compliance date, the reporting period for the first compliance report is unchanged in the final rule because sources must be operating monitoring equipment and conducting other ongoing compliance activities beginning on the compliance date.

Comment: Two commenters were concerned that some of the data that must be submitted in the precompliance report are CBI and should not be required. Commenters also are concerned that some of the requested information for operating scenarios is CBI.

Response: We recognize that certain information needed to complete the precompliance report and operating scenarios in the NOCS report may be confidential. Precompliance and NOCS reports are considered to be submitted to the Administrator under CAA section 114 even if they are submitted to a State or local agency acting on the Administrator's behalf (40 CFR 2.301(b)(2)) and, as such, are entitled to protection under section 114(c) of the CAA or 40 CFR 2.201–2.311, provided they meet the criteria set forth in the statute and regulations. If you claim that any portion of these reports is entitled to such protection, the material that is claimed as confidential must be clearly designated in the submission.

Comment: Several commenters objected to the notification of process change requirements in § 63.2515(f) of the proposed rule. One commenter stated that the requirement to report any process change, change in operating scenarios, or change in information submitted in the NOCS report would be impossibly burdensome for complex

specialty batch processing systems, and it would offer no environmental benefit. According to the commenter, frequent, even daily, changes are normal and necessary requirements of such facilities. The commenter stated that facilities should only be required to report changes that result in non-conformance with emission limits or control efficiency requirements, or that cause a process to exceed the 10,000 lb/yr uncontrolled HAP threshold, thereby triggering compliance requirements under subpart FFFF.

Other commenters stated that the proposed notification of process change requirement is too expansive, imposing a reporting burden which totally duplicates title V change requirements. One of these commenters stated that there is no need to submit reports for a process change unless the process change brings about new applicable requirements. According to the commenter, an example of a situation where there would be no need to report is the startup of a new process in an existing MCPU for a new product, or family of products, which emits no HAP; or requires no new or different controls, work practices, or monitoring; and brings about no new applicable requirements. Both commenters noted that any process change that generates a new or modified applicable requirement may be anticipated by the facility and would be reported and/or incorporated in the title V permit. Therefore, according to the two commenters, providing 60-day prior notifications of process changes (*e.g.*, in separate notices or in the semiannual compliance report) would be unnecessary, wasteful, and burdensome. Therefore, the commenters recommended deleting the notification of process change requirement in § 63.2515(f).

Response: We disagree with the commenters. These records are needed to document continuous compliance. As stated before, the level of detail associated with information provided in operating scenarios depends on the compliance options and strategy chosen. For example, we provide concepts like standard batches to account for variability that could be introduced into a process without triggering new applicable requirements. Standard batches mean a range of operating conditions can be covered as part of a single operating scenario. Likewise, demonstrating initial compliance under worst-case conditions means information in the notification of compliance status should rarely change. Therefore, we do not agree that the requirements to report process changes are unnecessarily burdensome.

M. Startup, Shutdown, and Malfunction

Comment: Several commenters requested changes to the definition of "startup." Their primary concern is the statement that excludes the first time equipment is put into operation after a shutdown for maintenance and at the start of a campaign to produce a product that has been produced in the past. One commenter stated that actions to bring a batch campaign online, regardless of whether previous campaigns of that product have been run in the past, to be completely different and more complex than the routine activities conducted between batches within a campaign, and these operations are not always predictable. Another commenter indicated startups should apply after shutdowns for maintenance to avoid safety and environmental issues associated with trying to run controls with air and/or inerts in the system. Finally, one commenter claimed the exclusions are illegal because we did not collect information for periods of SSM.

Several commenters also opposed the exclusions from the definition of "shutdown" for the cessation of a batch process at both the end of a campaign and for routine maintenance. According to one commenter, shutting down a process unit after a campaign involves completely different and more complex procedures than those conducted between batches in a campaign; these operations are not always predictable, and there is no difference between shutting down between campaigns and a maintenance shutdown of a continuous process after a production run.

Response: We have considered similar comments on previous rulemakings involving batch processors. Commenters in the past suggested that operating practices for controls used with batch processes are the same as those for controls used with continuous processes and argued for similar provisions. Our response was to provide a definition of startup and shutdown that would consider situations when operators would be unfamiliar with the equipment operation or it might not be possible to follow standard operating procedures. However, we thought that a startup after maintenance, after switching to a product that has been produced in the past, or the startups between batches during a campaign are all routine, normal operating conditions that should result in the same standard batch. Similarly, we considered shutdown at the end of a campaign, between batches, or for planned, preventative maintenance to be normal operations and resulting in the same standard batch. Our rationale for providing separate requirements for continuous processes was that a startup or shutdown for any reason results in operation under conditions different from the normal steady-state operation, which is not the case for batch operations.

We accept the commenters' statement that actions to bring a batch campaign on-line, regardless of whether previous campaigns of that product have been run, or after a shutdown for maintenance, could be completely different and more complex than the routine activities conducted between batches within a campaign. This could also be the case, as commenters argue, after cessation of operation for various reasons. Therefore, we are persuaded that when these operations are outside of operations covered by a standard batch (or a nonstandard batch, as described below), that they should be covered by the SSM provisions.

Related to this issue is our concept of nonstandard batch, which describes a situation where operations are conducted outside the range of conditions established by a standard batch or where steps are repeated or deleted that contribute to emissions from the batch and, therefore, must be considered in determining compliance. For example, if QA/QC metrics are not met at a certain step of a process, and a material must be recrystallized or purified to a greater degree than originally prescribed by the standard operating procedure, extended processing steps must be considered. In these instances, owners and operators are required to calculate emissions from the nonstandard batch and verify compliance with the standards. These instances would not be considered part of the SSM provisions because they can be reasonably anticipated. As a result, we have defined the term "nonstandard batch" in the final rule to describe situations that are not standard batches, but also are not malfunctions.

Comment: One commenter asserted that SSM provisions in proposed § 63.2490 are unlawful. According to the commenter, allowing sources to avoid enforcement actions merely by demonstrating that they were in compliance with their own SSM plans necessarily allows them to operate in less than continuous compliance even if their deviations were avoidable. The commenter indicated that the CAA makes it clear that sources must be in compliance with emissions standards continuously, except for unavoidable deviations during SSM.

Response: We recently adopted final amendments to the General Provisions which address the concerns raised by the commenter (68 FR 32586, May 30, 2003). The final amendments clarify that § 63.6(e)(1)(i) establishes a general duty to minimize emissions. During a period of SSM, that general duty requires an owner or operator to reduce emissions to the greatest extent consistent with safety and good air pollution control practices. However, "during an SSM event, the general duty to minimize emissions does not require an owner or operator to achieve the levels required by the applicable MACT standard at other times, or to make further efforts to reduce emissions if such levels have been successfully achieved." As discussed in the preamble to the final amendments, we disagree with the commenter's legal position that sources' compliance with SSMP requirements in lieu of applicable emission standards is permissible only where violations of emission limitations are "unavoidable." As stated in the preamble to the final amendments to the General Provisions, "[w]e believe that we have discretion to make reasonable distinctions concerning those particular activities to which the emission limitations in a MACT standard apply * * * However, we note that the general duty to minimize emissions is intended to be a legally enforceable duty which applies when the emission limitations in a MACT standard do not apply, thereby limiting exceedances of generally applicable emission limitations to those instances where they cannot be reasonably avoided." (68 FR 32590, May 30, 2003). We further explained that the general duty to minimize emissions requires that owners or operators review their SSMP on an ongoing basis and make appropriate improvements to ensure that excess emissions are avoided.

Comment: Several commenters disagreed with a number of the proposed SSM requirements. They indicated that monitored parameter values during periods of SSM should not be included in daily averages, and that to do so distorts the results for periods of normal operation and is inconsistent with the General Provisions and previous rules. Commenters also stated that it is not possible to have a deviation from the emission limit or work practice standard during SSM periods because the only requirement during such periods is to comply with the SSMP. Therefore, the commenters stated that the definition of "deviation" is inconsistent with the General Provisions and should be changed to delete the statement that conflicts with this point, and there should be no requirement to document deviations during SSM periods in the compliance reports. According to the commenters, records of every SSM event, as required by the General Provisions, are unnecessary and wasteful. The commenters recommended replacing this provision, like in many other rules, with a requirement to keep records only of events during which excess emissions occur. Finally, commenters recommended deleting the requirement to submit an immediate SSM report each time actions taken differ from the SSMP.

Response: We disagree with the comment that the definition of deviation is inconsistent with the General Provisions. As recently amended, 40 CFR 63.6(e)(1)(i) requires operation at all times (including periods of SSM) in a manner consistent with safety and good air pollution control practices for minimizing emissions. The General Provisions state that the general duty to minimize emissions during a period of SSM does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, thus allowing for compliance with the SSMP in the event that the standard cannot otherwise be met. However, we further clarified in the recent amendments that a source will not be considered to have satisfied the duty to minimize emissions merely because it complied with an inadequate SSMP. Furthermore, the General Provisions do not say there cannot be a deviation during periods of SSM. They only state (in § 63.7(e)(1)) that emissions in excess of the level of the relevant standard during periods of SSM shall not be considered a violation of the relevant standard, unless a determination of noncompliance is made under § 63.6(e). As discussed in response to the previous comment, recent final amendments to the General Provisions changed § 63.6(e) to clarify a source's compliance obligations during SSM events. As noted previously, the final rule references most of the requirements in 40 CFR part 63, subpart SS. For calculating daily averages, subpart SS specifies that monitoring data collected during periods of SSM are to be excluded. However, we excluded this provision from 40 CFR part 63, subpart FFFF. If data from SSM events are excluded from the daily (or block) average, then we would not have sufficient information to assess whether a deviation has occurred for a day containing a reported SSM event that we subsequently determine is not properly an SSM event.

Another requirement in subpart SS is that records of SSM events (*i.e.*, confirmation that actions taken were consistent with the SSMP or a description of any inconsistent actions) must be maintained only if excess emissions occur. For the final subpart FFFF, we decided that this requirement, rather than records of every SSM event as specified in the General Provisions, provides sufficient information about SSM events (note that it applies for all SSM periods, not just those subject to subpart SS), which means determination of excess emissions is critical. The final rule defines excess emissions as "emissions greater than those allowed by the emission limit." When a CMS is used to demonstrate compliance with an operating limit, this means excess emissions occur when the operating limit is not met. As noted above, compliance with an operating limit is based on a daily or block average, not an average over shorter periods such as a period of SSM. Thus, SSM records are required for each SSM event that occurs when you have a deviation of the operating limit for the day or block.

We disagree with the commenter's contention that sources should not be required to report deviations that occur during SSM events. Reporting of deviations from emission limits, operating limits, and work practice standards that occur during SSM events is necessary because events claimed to be SSM events by the source may not be viewed as approved SSM events by EPA. Furthermore, § 63.998(c)(1)(ii)(E) and (d)(3) of subpart SS already require records of each SSM event during which excess emissions occur, and as such the additional requirement to report such records is not unduly burdensome.

We agree that immediate notifications are not necessary. The industries covered by this source category generally have extensive upset/SSM reporting requirements under the Comprehensive Environmental Response, Compensation, and Liability Act and state reporting requirements that should be adequate in supplying timely notification of events. Further, the final rule requires information regarding actions inconsistent with the SSMP to be submitted in semiannual compliance reports. For these reasons, and to maintain consistency with the HON and the CAR rules, we have overridden the immediate SSM reporting required by §§ 63.6(e)(3)(iv) and 63.10(d)(5)(ii) of the General Provisions.

N. Change Management

Comment: Regarding EPA's solicitation of comments concerning process change management, one commenter suggested relying on the title V constructions for process change management whenever possible. According to the commenter, adding change management provisions to the rule (beyond requiring facilities that change the underlying potential to emit assumptions to comply with the construction and/or operating permit requirements of their permitting authority) could only be justified when a campaign is introduced that changes the underlying evaluation of the worst case for a specific production unit. Otherwise, the commenter argued, any additional change management requirements would just increase the compliance burden on already overworked permitting authorities.

The commenter specifically requested that § 63.2515(f) be modified to exempt from separate reporting any process change that is managed according to regulations and procedures required by a permitting authority under an approved title V program. The commenter requested that facilities that process such a change request through the title V program or incorporate the change into a title V permit should only have to designate in that filing how the change impacts the 40 CFR part 63, subpart FFFF, compliance program at the facility. According to the commenter, this change would significantly decrease the burden on permitting authorities and facilities by requiring the permitting authorities to manage the same issue only once.

Regarding the solicitation of comments about change management being required for facilities complying with the alternate standard, the commenter stated that, for any facility restricting control device emissions to a documented 20 ppmv, the activities occurring before the control device are not able to significantly change the emissions profile to the environment as long as the maximum air flow through the control device does not change.

Response: Our intent in requiring operating scenarios, testing under worst-case conditions, and specification of conditions under which process changes are reported is to provide a framework for managing changes that may be frequent because of the nature of batch specialty chemical processing operations without introducing additional burden on permitting authorities and facilities. We intend, for example, that the standard batch and overall operating scenario cover the anticipated range of conditions of a process; only in cases where a change is made that would fall outside of the standard batch would a new standard batch and operating scenario be required. However, we consider it inappropriate for the final rule to exempt any process change that is managed according to title V, as one commenter requested. For all practical purposes, 40 CFR part 63, subpart FFFF, specifies the information required to determine applicable requirements for the MACT standards that are incorporated into the title V permits. Finally, the final rule is consistent with the commenter's proposed approach to managing change for a process in which a control device is tested under worst-case conditions using limitations of the capture and conveyance system. The operating scenario in this case is simple, and no detailed information on the emission events controlled by the device are necessary. Likewise, if a process change occurred in the process, no new operating scenario is required because the existing operating scenario still applies.

Comment: One commenter made two comments regarding EPA's solicitation of comments on process change management as it relates to title V permits. First, noting that the solicitation of comments specifically referenced the Pharmaceuticals Production MACT, the commenter stated that the consideration under that rule authorizing States to allow facilities to introduce new processes into existing equipment or install stockpiled equipment without reopening title V permits would apply with equal force to 40 CFR part 63, subpart FFFF. The commenter noted that many batch and specialty chemical facilities frequently introduce new processes into existing equipment or install stockpiled equipment. According to the commenter, such facilities need to have the flexibility to respond quickly to the results of their research and development activities and changes in market conditions in a cost-effective manner and without opening a lengthy permitting process. Therefore, the commenter recommended that we provide a discussion of change management for subpart FFFF that is similar to that provided in the preamble to the final Pharmaceuticals Production MACT.

Second, the commenter noted that the Pharmaceuticals Production MACT encouraged States to allow for flexible permitting of facilities and avoid permit revisions where reasonably anticipated alternative operating scenarios can be established in title V permits and supported with detailed operating logs. The commenter also noted that the pharmaceuticals change strategy authorized new process equipment to be brought into service, without permit modification, where it is either like-kind replacement or existing onsite equipment not in current service. According to the commenter, the miscellaneous organic chemical manufacturing source category would involve the same industry contacts and supporting rationales that we cited in the Pharmaceuticals Production NESHAP. Therefore, the commenter recommended that we include similar provisions in subpart FFFF.

Response: As the commenter noted, the preamble to the final Pharmaceuticals Production NESHAP (63 FR 50309, September 21, 1998) provided a detailed discussion of change management procedures as applied to pharmaceuticals production. We have decided not to include a similar discussion here. Sources subject to 40 CFR part 63, subpart FFFF, may discuss their interest in change management procedures with EPA or the appropriate permitting authority on an individual basis.

O. Overlapping Requirements

Comment: Several commenters requested that the rule include language to address potential overlap between 40 CFR part 63, subpart FFFF, and various 40 CFR part 60 and part 61 rules. Each commenter was concerned with a different group of rules, but collectively they include subparts K, Ka, Kb, VV, DDD, III, NNN, and RRR in part 60 and subparts V, Y, BB, and FF in part 61. Typically, the commenters requested language consistent with language in other rules such as the HON, or language specifying that compliance with subpart FFFF constitutes compliance with an overlapping rule. For vents in an MCPU that contain no HAP but are subject to control under 40 CFR part 60, subparts DDD, III, NNN, and RRR, one commenter requested a provision that would allow facilities to opt to meet the continuous process vent requirements of subpart FFFF in lieu of continuing to comply with the NSPS requirements.

Response: We agree that there is a need to address potential overlap between subpart FFFF and various part 60 and part 61 rules, and we have written the final rule accordingly. In general, the language is consistent with language in previous rules. For example, the final rule includes language consistent with § 63.110(e)(1) for overlap with subpart FF of part 61. To address overlap with subpart BB of part

61, we included language consistent with language in § 63.110(c) of the HON. We also included language for overlap with subpart DDD of part 60 that is similar to the proposed language for subparts III, NNN, and RRR. In addition, for an MCPU with process vents that contain no HAP, but are subject to control requirements under subpart DDD, III, NNN, or RRR, the final rule also includes the suggestion to allow compliance with the control requirements in subpart FFFF for Group 1 process vents. In each case, the total organic compounds (TOC) must be considered as if they are organic HAP for purposes of compliance with subpart FFFF. For storage tanks subject to both subpart FFFF and 40 CFR part 60, subpart Kb, we decided to keep the proposed language and add another option. The new option in the final rule specifies that if control is required under subpart Kb and the tank is assigned to an MCPU, then compliance with the requirements for Group 1 storage tanks under subpart FFFF constitutes compliance with subpart Kb. Since the compliance requirements of 40 CFR part 61, subpart Y, are similar to the requirements in subpart Kb, we have decided to address overlap with subpart Y of part 61 by including language in the final rule that is consistent with the language used to address overlap with subpart Kb. We have not included language to address overlap with subparts K and Ka of part 60 because these rules apply to tanks storing petroleum liquids, which are not included in the miscellaneous organic chemical manufacturing source category. Finally, the final rule specifies that compliance with subpart FFFF constitutes compliance with subpart V in part 61 and subpart VV in part 60; alternatively, if you have an affected source with equipment subject to subpart V in part 61 or subpart VV in part 60, you may elect to comply solely with either subpart FFFF or the other applicable rule.

Comment: Commenters stated that the proposed applicability provisions and definitions do not go far enough to prevent multipurpose equipment from being subject to more than one MACT standard. Commenters suggested exempting all operations subject to another part 63 rule; designating subpart FFFF as the single applicable rule, or allowing facilities to pick any one of the applicable MACT rules; and using "primary product" and process unit group (PUG) concepts for clarifying applicability.

Response: We recognize that 40 CFR part 63, subpart FFFF, will affect manufacturers of specialty chemicals and other products whose multipurpose production processes are subject to other MACT standards, creating situations where there are overlapping requirements. The challenge is how to consolidate overlapping requirements and still maintain the MACT reductions anticipated from each of the various standards. Many MACT standards that regulate specialty chemicals, pesticide active ingredients (PAI), SOCMI, and polymers and resins have specific language relating to overlap. The predominant method of addressing possible overlap is by designating a primary product and requiring compliance with the final rule that applies to the primary product at all times when the flexible process unit is operating. The presumption is that the equipment should be regulated according to the standard that effectively applies for a majority of products produced.

After considering the provisions in previous rules, we decided to include in the final rule a provision that is essentially the same as in the PAI rule. This provision is based on developing a PUG from a collection of multipurpose equipment, determining the primary product for the PUG, and, generally, complying with the rule that applies to the primary product for all process units within the PUG. If the primary product is determined to be miscellaneous organic chemical manufacturing materials, then you must comply with subpart FFFF for all process units in the PUG. If the primary product is determined to be pharmaceutical products or PAI, then you must comply with 40 CFR part 63, subpart GGG or subpart MMM, respectively, for all MCPU in the PUG. Although we consider it unlikely, it is possible that the primary product of a PUG, as determined according to the procedures in subpart FFFF, could be material subject to another MACT rule such as 40 CFR part 63, subpart JJJ, even though it was not determined to be the primary product according to the procedures in subpart JJJ (*i.e.*, the PUG is a flexible operation unit under subpart JJJ). In this case, subpart FFFF only requires compliance with subpart FFFF for the MCPU in the PUG.

The PUG concept also overrides certain applicability provisions in other overlapping standards. For example, if the primary product of a PUG that is also a flexible operation unit for the purposes of subpart JJJ is determined to be an miscellaneous organic chemical manufacturing product, then the redetermination procedures for nonaffected units in subpart JJJ no longer apply. Another example is that subpart GGG no longer applies to pharmaceutical process units in a PUG for which the primary product is determined to be miscellaneous organic chemical manufacturing material. Similarly, if the primary product of a PUG is miscellaneous organic chemical manufacturing material, then any PAI process units in the PUG that previously were required to comply with subpart MMM now must comply with subpart FFFF.

A slight difference exists between the PUG language in the PAI rule and this current PUG language. In the PAI rule, each process unit in the PUG must have some processing equipment that overlaps with at least one other PAI process unit in the group. For subpart FFFF, this restriction has been revised to require only that each process unit must have processing equipment that overlaps with any other process unit (of any kind) in the group. This language allows greater flexibility in setting the boundaries of the PUG and potentially increases the number of operations considered as part of a PUG, extending the potential for consolidation of overlapping requirements and enabling all the operations considered part of a flexible unit operation in earlier MACT standards to fall into the same PUG. Since the change also creates the possibility that PUG developed under subparts MMM and FFFF would not be identical, subpart FFFF specifies that an owner or operator may use a PUG developed under subpart MMM rather than developing a PUG under subpart FFFF.

Comment: One commenter stated that the final rule should specify a date in the future where the MACT standard for a particular equipment configuration is "set" to avoid having to redetermine applicability as processes and equipment change.

Response: Previous part 63 rules require a prospective review of the 5 year period from the compliance date to predict the primary product and, with the exception of the HON, a subsequent periodic redetermination ranging from every year to every 5 years, or upon permanent cessation of the primary product production. We recognize that redetermination is a burden in that it may require changing control strategies to comply with a different rule if the primary product changes. To minimize any burden associated with such changes, the final rule requires a redetermination only if the PUG stops manufacturing the primary product. As with the initial determination, the redetermination is based on a 5-year projection of production. After redetermination, the PUG becomes

subject to whatever rule applies to the new primary product. In the absence of earlier declarations that production of the primary product has ceased, not making the primary product for a period of 5 years will be considered evidence that manufacturing of the primary product has ceased.

Comment: Several commenters requested that we make sure there is no overlap between the OLD MACT and 40 CFR part 63, subpart FFFF. Several commenters also asked for clarification of how to comply when there is overlap between subparts FFFF and HHHHH.

Response: The preamble to the proposed OLD rule stated our intent that all of the distribution sources at miscellaneous organic chemical manufacturing affected sources would be subject only to subpart FFFF, not the OLD rule. The proposed OLD rule also states that those emission sources that are controlled under the provisions of another 40 CFR part 63 NESHAP would not be part of the OLD affected source. Our position on this issue has not changed, and we expect to use the same language in the final OLD rule. Thus, subpart FFFF does not need to address overlap between the OLD rule and subpart FFFF because there will be no overlap.

The final rule handles overlapping requirements between subparts FFFF and HHHHH the same as described above for overlap between subpart FFFF and other part 63 rules. In addition, we have made changes to the definition of miscellaneous organic chemical manufacturing process and to the affected source that are designed to clarify which equipment is subject to subpart FFFF and which is subject to subpart HHHHH.

Comment: Two commenters requested that the final rule allow consolidation of all equipment leak LDAR programs under 40 CFR part 63, subpart FFFF, or any other single program. One of the commenters noted that many facilities are complying with a number of different programs that are effectively equivalent in terms of environmental protection, and consolidation will reduce confusion and eliminate significant enforcement effort by EPA and States in determining which LDAR program applies to which portion of a facility.

Response: The final rule allows for considerable consolidation of LDAR programs and specifies that compliance with subpart FFFF constitutes compliance with 40 CFR part 60, subpart VV, and 40 CFR part 61, subpart V. Furthermore, § 63.2535(d) of the final rule specifies that an owner or operator with an affected source under subpart FFFF and equipment subject to either 40 CFR part 63, subpart GGG or MMM, may elect to comply with subpart GGG or MMM, respectively, for all such equipment. The final rule also allows an owner or operator to elect to comply with the LDAR requirements in 40 CFR part 65, subpart F (*i.e.*, the CAR).

V. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the EPA must determine whether the regulatory action is "significant" and therefore subject to review by the Office of Management and Budget (OMB) and the requirements of the Executive Order. The Executive Order defines a "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlement, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, OMB has notified EPA that it considers this a "significant regulatory action" within the meaning of the Executive Order. The EPA has submitted this action to OMB for review. Changes made in response to OMB suggestions or recommendations will be documented in the public record.

B. Paperwork Reduction Act

The information collection requirements in the final rule have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The information requirements are not enforceable until OMB approves them. The ICR number is 1969.02.

The information requirements are based on notification, recordkeeping, and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A), which are mandatory for all operators subject to NESHAP. These recordkeeping and reporting requirements are specifically authorized by section 112 of the CAA (42 U.S.C. 7414). All information submitted to the EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to Agency policies in 40 CFR part 2, subpart B.

The final NESHAP require maintenance inspections of the control devices but do not require any notifications or reports beyond those required by the NESHAP General Provisions (40 CFR part 63, subpart A). The recordkeeping requirements collect only the specific information needed to determine compliance.

The annual public reporting and recordkeeping burden for this collection of information (averaged over the first 3 years after the effective date of the final rule) is estimated to total 71 labor hours per year at a total annual cost of $3,150 for 251 respondents. These estimates include one-time submissions of notifications and precompliance reports, preparation of an SSMP with semiannual reports for any event when the procedures in the plan were not followed, preparation of semiannual compliance reports, and recordkeeping. Total annualized capital/startup costs associated with the monitoring requirements for the 3-year period of the ICR are estimated at $256,000 per year. Average operation and maintenance costs associated with the monitoring requirements for the 3-year period are estimated at $92,000 per year.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purpose of collecting, validating, and verifying information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control number for EPA's regulations in 40 CFR are in 40 CFR part 9. When this ICR is approved by OMB, the Agency will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number for the

approved information collection requirements contained in the final rule.

C. Regulatory Flexibility Act

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the final rule. The EPA has also determined that the final rule will not have a significant economic impact on a substantial number of small entities. For purposes of assessing the impact of the rule on small entities, small entity is defined as: (1) A small business ranging from up to 500 employees to up to 1,000 employees, depending on the NAICS code; (2) a small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000; or (3) a small organization that is any not-for-profit enterprise that is independently owned and operated and is not dominant in its field. The maximum number of employees to be considered a small business for each NAICS code is shown in the preamble to the proposed rule (67 FR 16178).

After considering the economic impacts of the final rule on small entities, EPA has concluded that this action will not have a significant economic impact on a substantial number of small entities. Our economic analysis identified as small businesses 27 of the 113 companies owning affected miscellaneous organic chemical manufacturing facilities. This constitutes 24 percent of the affected businesses. Although small businesses represent 24 percent of the companies within the source category, they are expected to incur 6 percent of the total industry compliance costs of $75 million. According to EPA's economic assessment, there is one small firm with compliance costs equal to or greater than 3 percent of its sales. In addition, there are three small firms with cost-to-sales ratios between 1 percent and 3 percent.

An economic impact analysis was performed to estimate the changes in product price and production quantities for the firms affected by 40 CFR part 63, subpart FFFF. The analysis shows that of the 49 facilities owned by affected small firms, one is expected to shut down after the implementation of the miscellaneous organic chemical manufacturing NESHAP.

It should be noted that the baseline economic condition of the facility predicted to close affects the closure estimate provided by the economic model, *i.e.*, facilities that are already experiencing adverse economic conditions will be more severely impacted than those that are not, and that the facility predicted to close appears to have low profitability levels currently.

Although the miscellaneous organic chemical manufacturing NESHAP will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has tried to limit the impact of the rule on small entities. We have worked closely with the American Chemical Council and the Synthetic Organic Chemical Manufacturers Association. These trade organizations, which represent the majority of facilities covered by subpart FFFF, have represented their members at stakeholder meetings throughout the standards development process. We also worked with the small chemical manufacturers to develop a format for the process vent standard that is reasonable for the production of chemicals using batch processing in nondedicated equipment and provide several alternative ways to comply with the standards to allow as much flexibility as possible. Emissions averaging and the pollution prevention alternative standards help those small entities that have been proactive in reducing their HAP emissions and usage, respectively. Another alternative standard requires the outlet concentration of the control device to be less than 20 ppmv. Under this alternative, recordkeeping and reporting requirements are greatly reduced. In addition, we have included in the preamble guidance for 40 CFR part 70 requirements to minimize title V permit modifications for owners and operators that make frequent changes to their processes.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures by State, local, and tribal governments, in aggregate, or by the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least-costly, most cost-effective, or least-burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least-costly, most cost-effective, or least-burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that the final rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. The maximum total annual costs of the final rule for any year is estimated to be about $75 million. Thus, the final rule is not subject to the requirements of sections 202 and 205 of the UMRA.

In addition, the NESHAP contain no regulatory requirements that might significantly or uniquely affect small governments because they contain no requirements that apply to such governments or impose obligations upon them. Therefore, the final rule is not subject to the requirements of section 203 of the UMRA.

E. Executive Order 13132: Federalism

Executive Order 13132 (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

The final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and

responsibilities among the various levels of government, as specified in Executive Order 13132. None of the sources are owned or operated by State or local governments. Thus, Executive Order 13132 does not apply to the final rule.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." The final rule does not have tribal implications. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes. No tribal governments own or operate miscellaneous organic chemical manufacturing process units. Thus, Executive Order 13175 does not apply to the final rule.

G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks

Executive Order 13045, entitled "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 1985, April 23, 1997) applies to any rule that: (1) Is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, EPA must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The final rule is not subject to the Executive Order because it is based on technology performance and not health or safety risks.

H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution or Use

The final rule is not a "significant energy action" as defined in Executive Order 13211, "Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355, May 22, 2001) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Approximately 51 million kwh/yr of electricity will be needed to operate refrigeration units, fans, and pumps for control systems. Approximately 680 million lb/yr of steam will be needed to operate steam-assist flares and steam strippers. Approximately 4.3 billion standard cubic feet per year (scf/yr) of natural gas will be needed to operate thermal oxidizers and flares, and about 1.0 billion scf/yr will be needed to generate steam. Generating the electricity will consume about 17,700 tpy of coal.

I. National Technology Transfer Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Public Law No. 104–113) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

The final rule involves technical standards. The final rule uses EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 3A, 3B, 4, 15, 18, 25, 25A, 305, 316, 320, 624, 625, 1624, 1625, 1666, 1671, 8260, and 8270. Consistent with the NTTAA, the EPA conducted searches to identify voluntary consensus standards in addition to these EPA methods. The search and review results have been documented and placed in the docket for the NESHAP (Docket OAR–2003–0121). The search for emissions monitoring procedures for measuring emissions of the HAP or surrogates subject to emission limitations in these NESHAP identified 19 voluntary consensus standards that appeared to have possible use in lieu of EPA standard reference methods. However, after reviewing the available standards, EPA determined that 13 of the candidate consensus standards would not be practical due to lack of equivalency, documentation, and validation data. The 13 standards are: ASME C00031 or Performance Test Code 19–10–1981, ASTM D3154–91 (1995), ASTM D3464–96, ASTM D3796–90 (1998), ASTM D5835–95, ASTM D6060–96, ASTM E337–84 (Reapproved 1996), CAN/CSA Z2232.2–M–86, European Norm (EN) 12619 (1999), EN 1911–1,2,3 (1998), ISO 9096:1992, ISO 10396:1993, and ISO 10780:1994. Of the six remaining candidate consensus standards, the following five are under development or under EPA review: ASME/BSR MFC 12M, ASME/BSR MFC 13m, ASTM D5790–95 (1995), ISO/DIS 12039, and ISO/FDIS 14965. The EPA plans to follow, review, and consider adopting these candidate consensus standards after their development and further review by EPA is completed.

One consensus standard, ASTM D6420–99, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (GC/MS), is appropriate in the cases described below for inclusion in these NESHAP in addition to the currently available EPA Method 18 codified at 40 CFR part 60, appendix A for measurement of organic HAP or total organic compounds. Therefore, the standard ASTM D6420–99 is cited in the final rule.

Similar to EPA's performance-based Method 18, ASTM D6420–99 is also a performance-based method for measurement of gaseous organic compounds. However, ASTM D6420–99 was written to support the specific use of highly portable and automated GC/MS. While offering advantages over the traditional Method 18, the ASTM method does allow some less stringent criteria for accepting GC/MS results than required by Method 18. Therefore, ASTM D6420–99 (Docket OAR–2003–0121) is a suitable alternative to Method 18 only where the target compound(s) are those listed in section 1.1 of ASTM D6420–99; and the target concentration is between 150 ppb(v) and 100 ppm(v).

For target compound(s) not listed in Table 1.1 of ASTM D6420–99, but potentially detected by mass spectrometry, the regulation specifies that the additional system continuing calibration check after each run, as detailed in section 10.5.3 of the ASTM method, must be followed, met, documented, and submitted with the data report even if there is no moisture condenser used or the compound is not considered water soluble. For target

compound(s) not listed in section 1.1 of ASTM D6420–99, and not amenable to detection by mass spectrometry, ASTM D6420–99 does not apply.

As a result, EPA cites ASTM D6420–99 in subpart FFFF of part 63. The EPA also cites Method 18 as a gas chromatography (GC) option in addition to ASTM D6420–99. This will allow the continued use of GC configurations other than GC/MS.

Some EPA testing methods and performance standards are specified in §§ 63.2450(g) and 63.2485(h) of subpart FFFF. Subpart FFFF also references EPA testing methods specified in 40 CFR part 63, subparts G and SS. Most of the standards have been used by States and industry for more than 10 years. Nevertheless, under § 63.7(f), the final rule also allows any State or source to apply to EPA for permission to use an alternative method in place of any of the EPA testing methods or performance standards listed in the NESHAP.

J. Congressional Review Act

The Congressional Review Act, 5.U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. This rule is not a "major rule" as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: August 25, 2003.

Marianne Lamont Horinko,

Acting Administrator.

■ For the reasons stated in the preamble, title 40, chapter I, part 63 of the Code of the Federal Regulations is amended as follows:

PART 63—[AMENDED]

■ 1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

■ 2. Part 63 is amended by adding a new subpart FFFF to read as follows:

Subpart FFFF—National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing

Sec.

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What This Subpart Covers

§ 63.2430 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for miscellaneous organic chemical manufacturing. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limits, operating limits, and work practice standards.

§ 63.2435 Am I subject to the requirements in this subpart?

(a) You are subject to the requirements in this subpart if you own or operate miscellaneous organic chemical manufacturing process units (MCPU) that are located at, or are part of, a major source of hazardous air pollutants (HAP) emissions as defined in section 112(a) of the Clean Air Act (CAA).

(b) An MCPU includes equipment necessary to operate a miscellaneous organic chemical manufacturing process, as defined in § 63.2550, that satisfies all of the conditions specified in paragraphs (b)(1) through (3) of this section. An MCPU also includes any assigned storage tanks and product transfer racks; equipment in open systems that is used to convey or store water having the same concentration and flow characteristics as wastewater; and components such as pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, and instrumentation systems that are used to manufacture any material or family of materials described in paragraphs (b)(1)(i) through (v) of this section.

(1) The MCPU produces material or family of materials that is described in paragraph (b)(1)(i), (ii), (iii), (iv), or (v) of this section.

(i) An organic chemical or chemicals classified using the 1987 version of SIC code 282, 283, 284, 285, 286, 287, 289, or 386, except as provided in paragraph (c)(5) of this section.

(ii) An organic chemical or chemicals classified using the 1997 version of NAICS code 325, except as provided in paragraph (c)(5) of this section.

(iii) Quaternary ammonium compounds and ammonium sulfate produced with caprolactam.

(iv) Hydrazine.

(v) Organic solvents classified in any of the SIC or NAICS codes listed in paragraph (b)(1)(i) or (ii) of this section that are recovered using nondedicated solvent recovery operations.

(2) The MCPU processes, uses, or produces any of the organic HAP listed in section 112(b) of the CAA or hydrogen halide and halogen HAP, as defined in § 63.2550.

(3) The MCPU is not an affected source or part of an affected source under another subpart of this part 63, except for process vents from batch operations within a chemical manufacturing process unit (CMPU), as identified in § 63.100(j)(4). For this situation, the MCPU is the same as the CMPU as defined in § 63.100, and you are subject only to the requirements for batch process vents in this subpart.

(c) The requirements in this subpart do not apply to the operations specified in paragraphs (c)(1) through (6) of this section.

(1) Research and development facilities, as defined in section 112(c)(7) of the CAA.

(2) The manufacture of ammonium sulfate as a by-product, if the slurry entering the by-product manufacturing process contains 50 parts per million by weight (ppmw) HAP or less or 10 ppmw benzene or less. You must retain information, data, and analysis to document the HAP concentration in the entering slurry in order to claim this exemption.

(3) The affiliated operations located at an affected source under subparts GG (National Emission Standards for Aerospace Manufacturing and Rework Facilities), KK (National Emission Standards for the Printing and Publishing Industry), JJJJ (NESHAP: Paper and Other Web Coating), future MMMM (NESHAP: Surface Coating of Miscellaneous Metal Parts and Products), and SSSS (NESHAP: Surface Coating of Metal Coil) of this part 63. Affiliated operations include, but are not limited to, mixing or dissolving of coating ingredients; coating mixing for viscosity adjustment, color tint or additive blending, or pH adjustment; cleaning of coating lines and coating line parts; handling and storage of coatings and solvent; and conveyance and treatment of wastewater.

(4) Fabricating operations such as spinning a polymer into its end use.

(5) Production activities described using the 1997 version of NAICS codes 325131, 325181, 325188 (except the requirements do apply to hydrazine), 325314, 325991 (except the requirements do apply to reformulating plastics resins from recycled plastics products), and 325992 (except the requirements do apply to photographic chemicals).

(6) Tall oil recovery systems.

(d) If the predominant use of a transfer rack loading arm or storage tank (including storage tanks in series) is associated with a miscellaneous organic chemical manufacturing process, and the loading arm or storage tank is not part of an affected source under a subpart of this part 63, then you must assign the loading arm or storage tank to the MCPU for that miscellaneous organic chemical manufacturing process. If the predominant use cannot be determined, then you may assign the loading arm or storage tank to any MCPU that shares it and is subject to this subpart. If the use varies from year to year, then you must base the determination on the utilization that occurred during the year preceding November 10, 2003 or, if the loading arm or storage tank was not in operation during that year, you must base the use on the expected use for the first 5-year period after startup. You must include the determination in the notification of compliance status report specified in § 63.2520(d). You must redetermine the primary use at least once every 5 years, or any time you implement emissions averaging or pollution prevention after the compliance date.

(e) For nondedicated equipment used to create at least one MCPU, you may elect to develop process unit groups (PUG), determine the primary product of each PUG, and comply with the requirements of the subpart in 40 CFR part 63 that applies to that primary product as specified in § 63.2535(l).

§ 63.2440 What parts of my plant does this subpart cover?

(a) This subpart applies to each miscellaneous organic chemical manufacturing affected source.

(b) The miscellaneous organic chemical manufacturing affected source is the facilitywide collection of MCPU and heat exchange systems, wastewater, and waste management units that are associated with manufacturing materials described in § 63.2435(b)(1).

(c) A new affected source is described by either paragraph (c)(1) or (2) of this section.

(1) Each affected source defined in paragraph (b) of this section for which you commenced construction or reconstruction after April 4, 2002, and you meet the applicability criteria at the time you commenced construction or reconstruction.

(2) Each dedicated MCPU that has the potential to emit 10 tons per year (tpy) of any one HAP or 25 tpy of combined HAP, and you commenced construction or reconstruction of the MCPU after April 4, 2002. For the purposes of this paragraph, an MCPU is an affected source in the definition of the term "reconstruction" in § 63.2.

(d) An MCPU that is also a CMPU under § 63.100 is reconstructed for the purposes of this subpart if, and only if, the CMPU meets the requirements for reconstruction in § 63.100(l)(2).

Compliance Dates

§ 63.2445 When do I have to comply with this subpart?

(a) If you have a new affected source, you must comply with this subpart according to the requirements in paragraphs (a)(1) and (2) of this section.

(1) If you startup your new affected source before November 10, 2003, then you must comply with the requirements for new sources in this subpart no later than November 10, 2003.

(2) If you startup your new affected source after November 10, 2003, then you must comply with the requirements for new sources in this subpart upon startup of your affected source.

(b) If you have an existing source on November 10, 2003, you must comply with the requirements for existing sources in this subpart no later than November 10, 2006.

(c) You must meet the notification requirements in § 63.2515 according to the schedule in § 63.2515 and in 40 CFR part 63, subpart A. Some of the notifications must be submitted before you are required to comply with the emission limits, operating limits, and work practice standards in this subpart.

Emission Limits, Work Practice Standards, and Compliance Requirements

§ 63.2450 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limits and work practice standards in Tables 1 through 7 to this

subpart at all times, except during periods of startup, shutdown, and malfunction (SSM), and you must meet the requirements specified in §§ 63.2455 through 63.2490 (or the alternative means of compliance in § 63.2495, § 63.2500, or § 63.2505), except as specified in paragraphs (b) through (s) of this section. You must meet the notification, reporting, and recordkeeping requirements specified in §§ 63.2515, 63.2520, and 63.2525.

(b) *Determine halogenated vent streams.* You must determine if an emission stream is a halogenated vent stream, as defined in § 63.2550, by calculating the mass emission rate of halogen atoms in accordance with § 63.115(d)(2)(v). Alternatively, you may elect to designate the emission stream as halogenated.

(c) *Requirements for combined emission streams.* When organic HAP emissions from different emission types (*e.g.*, continuous process vents, batch process vents, storage tanks, transfer operations, and waste management units) are combined, you must comply with the requirements of either paragraph (c)(1) or (2) of this section.

(1) Comply with the applicable requirements of this subpart for each kind of organic HAP emissions in the stream (*e.g.*, the requirements of Table 1 to this subpart for continuous process vents and the requirements of Table 4 to this subpart for emissions from storage tanks).

(2) Determine the applicable requirements based on the hierarchy presented in paragraphs (c)(2)(i) through (vi) of this section. For a combined stream, the applicable requirements are specified in the highest-listed paragraph in the hierarchy that applies to any of the individual streams that make up the combined stream. For example, if a combined stream consists of emissions from Group 1 batch process vents and any other type of emission stream, then you must comply with the requirements in paragraph (c)(2)(i) of this section for the combined stream; compliance with the requirements in paragraph (c)(2)(i) of this section constitutes compliance for the other emission streams in the combined stream. Two exceptions are that you must comply with the requirements in Table 3 to this subpart and § 63.2465 for all process vents with hydrogen halide and halogen HAP emissions, and recordkeeping requirements for Group 2 applicability or compliance are still required (*e.g.*, the requirement in § 63.2525(f) to track the number of batches produced and calculate rolling annual emissions for processes with Group 2 batch process vents).

(i) The requirements of Table 2 to this subpart and § 63.2460 for Group 1 batch process vents, including applicable monitoring, recordkeeping, and reporting.

(ii) The requirements of Table 1 to this subpart and § 63.2455 for continuous process vents that are routed to a control device, as defined in § 63.981, including applicable monitoring, recordkeeping, and reporting.

(iii) The requirements of Table 5 to this subpart and § 63.2475 for transfer operations, including applicable monitoring, recordkeeping, and reporting.

(iv) The requirements of Table 7 to this subpart and § 63.2485 for emissions from waste management units that are used to manage and treat Group 1 wastewater streams and residuals from Group 1 wastewater streams, including applicable monitoring, recordkeeping, and reporting.

(v) The requirements of Table 4 to this subpart and § 63.2470 for control of emissions from storage tanks, including applicable monitoring, recordkeeping, and reporting.

(vi) The requirements of Table 1 to this subpart and § 63.2455 for continuous process vents after a recovery device including applicable monitoring, recordkeeping, and reporting.

(d) Except when complying with § 63.2485, if you reduce organic HAP emissions by venting emissions through a closed-vent system to any combination of control devices (except a flare) or recovery devices, you must meet the requirements of § 63.982(c) and the requirements referenced therein.

(e) Except when complying with § 63.2485, if you reduce organic HAP emissions by venting emissions through a closed-vent system to a flare, you must meet the requirements of § 63.982(b) and the requirements referenced therein.

(f) If you use a halogen reduction device to reduce hydrogen halide and halogen HAP emissions from halogenated vent streams, you must meet the requirements of § 63.994 and the requirements referenced therein. If you use a halogen reduction device before a combustion device, you must determine the halogen atom emission rate prior to the combustion device according to the procedures in § 63.115(d)(2)(v).

(g) *Requirements for performance tests.* The requirements specified in paragraphs (g)(1) through (5) of this section apply instead of or in addition to the requirements specified in subpart SS of this part 63.

(1) Conduct gas molecular weight analysis using Method 3, 3A, or 3B in appendix A to part 60 of this chapter.

(2) Measure moisture content of the stack gas using Method 4 in appendix A to part 60 of this chapter.

(3) If the uncontrolled or inlet gas stream to the control device contains carbon disulfide, you must conduct emissions testing according to paragraph (g)(3)(i) or (ii) of this section.

(i) If you elect to comply with the percent reduction emission limits in Tables 1 through 7 to this subpart, and carbon disulfide is the principal organic HAP component (*i.e.*, greater than 50 percent of the HAP in the stream by volume), then you must use Method 18, or Method 15 (40 CFR part 60, appendix A) to measure carbon disulfide at the inlet and outlet of the control device. Use the percent reduction in carbon disulfide as a surrogate for the percent reduction in total organic HAP emissions.

(ii) If you elect to comply with the outlet total organic compound (TOC) concentration emission limits in Tables 1 through 7 to this subpart, and the uncontrolled or inlet gas stream to the control device contains greater than 10 percent (volume concentration) carbon disulfide, you must use Method 18 or Method 15 to separately determine the carbon disulfide concentration. Calculate the total HAP or TOC emissions by totaling the carbon disulfide emissions measured using Method 18 or 15 and the other HAP emissions measured using Method 18 or 25A.

(4) As an alternative to using Method 18, Method 25/25A, or Method 26/26A of 40 CFR part 60, appendix A, to comply with any of the emission limits specified in Tables 1 through 7 to this subpart, you may use Method 320 of 40 CFR part 60, appendix A. When using Method 320, you must follow the analyte spiking procedures of section 13 of Method 320, unless you demonstrate that the complete spiking procedure has been conducted at a similar source.

(5) Section 63.997(c)(1) does not apply. For the purposes of this subpart, results of all initial compliance demonstrations must be included in the notification of compliance status report, which is due 150 days after the compliance date, as specified in § 63.2520(d)(1).

(h) *Design evaluation.* To determine the percent reduction of a small control device, you may elect to conduct a design evaluation as specified in § 63.1257(a)(1) instead of a performance test as specified in subpart SS of this part 63. You must establish the value(s)

and basis for the operating limits as part of the design evaluation.

(i) *Outlet concentration correction for supplemental gases.* In § 63.997(e)(2)(iii)(C), the correction to 3 percent oxygen for emission streams at the outlet of combustion devices is required if you add supplemental gases, as defined in § 63.2550, to the vent stream or manifold.

(j) *Continuous emissions monitoring systems.* Each continuous emissions monitoring system (CEMS) must be installed, operated, and maintained according to the requirements in § 63.8 and paragraphs (j)(1) through (5) of this section.

(1) Each CEMS must be installed, operated, and maintained according to the applicable Performance Specification of 40 CFR part 60, appendix B, and according to paragraph (j)(2) of this section, except as specified in paragraph (j)(1)(i) of this section. For any CEMS meeting Performance Specification 8, you must also comply with appendix F, procedure 1 of 40 CFR part 60.

(i) If you wish to use a CEMS other than an Fourier Transform Infrared Spectroscopy (FTIR) meeting the requirements of Performance Specification 15 to measure hydrogen halide and halogen HAP before we promulgate a Performance Specification for such CEMS, you must prepare a monitoring plan and submit it for approval in accordance with the procedures specified in § 63.8.

(ii) [Reserved]

(2) You must determine the calibration gases and reporting units for TOC CEMS in accordance with paragraph (j)(2)(i), (ii), or (iii) of this section.

(i) For CEMS meeting Performance Specification 9 or 15 requirements, determine the target analyte(s) for calibration using either process knowledge of the control device inlet stream or the screening procedures of Method 18 on the control device inlet stream.

(ii) For CEMS meeting Performance Specification 8 used to monitor performance of a combustion device, calibrate the instrument on the predominant organic HAP and report the results as carbon (C 1), and use Method 25A or any approved alternative as the reference method for the relative accuracy tests.

(iii) For CEMS meeting Performance Specification 8 used to monitor performance of a noncombustion device, determine the predominant organic HAP using either process knowledge or the screening procedures of Method 18 on the control device inlet stream, calibrate the monitor on the predominant organic HAP, and report the results as C_1. Use Method 18, ASTM D6420–99, or any approved alternative as the reference method for the relative accuracy tests, and report the results as C_1.

(3) You must conduct a performance evaluation of each CEMS according to the requirements in 40 CFR 63.8 and according to the applicable Performance Specification of 40 CFR part 60, appendix B, except that the schedule in § 63.8(e)(4) does not apply, and the results of the performance evaluation must be included in the notification of compliance status report.

(4) The CEMS data must be reduced to operating day or operating block averages computed using valid data consistent with the data availability requirements specified in § 63.999(c)(6)(i)(B) through (D), except monitoring data also are sufficient to constitute a valid hour of data if measured values are available for at least two of the 15-minute periods during an hour when calibration, quality assurance, or maintenance activities are being performed. An operating block is a period of time from the beginning to end of batch operations within a process. Operating block averages may be used only for batch process vent data.

(5) If you add supplemental gases, you must correct the measured concentrations in accordance with paragraph (i) of this section and § 63.2460(c)(6).

(k) *Continuous parameter monitoring.* The provisions in paragraphs (k)(1) through (4) of this section apply in addition to the requirements for continuous parameter monitoring system (CPMS) in subpart SS of this part 63.

(1) You must record the results of each calibration check and all maintenance performed on the CPMS as specified in § 63.998(c)(1)(ii)(A).

(2) When subpart SS of this part 63 uses the term "a range" or "operating range" of a monitored parameter, it means an "operating limit" for a monitored parameter for the purposes of this subpart.

(3) As an alternative to measuring pH as specified in § 63.994(c)(1)(i), you may elect to continuously monitor the caustic strength of the scrubber effluent.

(4) As an alternative to the inlet and outlet temperature monitoring requirements for catalytic incinerators as specified in § 63.988(c)(2), you may elect to comply with the requirements specified in paragraphs (k)(4)(i) through (iii) of this section.

(i) Monitor the inlet temperature as specified in subpart SS of this part 63.

(ii) Check the activity level of the catalyst at least every 12 months and take any necessary corrective action, such as replacing the catalyst to ensure that the catalyst is performing as designed.

(iii) Maintain records of the annual checks of catalyst activity levels and the subsequent corrective actions.

(l) *Startup, shutdown, and malfunction.* Sections 63.152(f)(7)(ii) through (iv) and 63.998(b)(2)(iii) and (b)(6)(i)(A), which apply to the exclusion of monitoring data collected during periods of SSM from daily averages, do not apply for the purposes of this subpart.

(m) *Reporting.* (1) When §§ 63.2455 through 63.2490 reference other subparts in this part 63 that use the term "periodic report," it means "compliance report" for the purposes of this subpart. The compliance report must include the information specified in § 63.2520(e), as well as the information specified in referenced subparts.

(2) When there are conflicts between this subpart and referenced subparts for the due dates of reports required by this subpart, reports must be submitted according to the due dates presented in this subpart.

(3) Excused excursions, as defined in subparts G and SS of this part 63, are not allowed.

(n) The option in § 63.997(e)(2)(iv)(C) to demonstrate compliance with a percent reduction emission limit by measuring TOC is not allowed.

(o) You may not use a flare to control halogenated vent streams or hydrogen halide and halogen HAP emissions.

(p) Opening a safety device, as defined in § 63.2550, is allowed at any time conditions require it to avoid unsafe conditions.

(q) If an emission stream contains energetics or organic peroxides that, for safety reasons, cannot meet an applicable emission limit specified in Tables 1 through 7 to this subpart, then you must submit documentation in your precompliance report explaining why an undue safety hazard would be created if the air emission controls were installed, and you must describe the procedures that you will implement to minimize HAP emissions from these vent streams.

(r) *Surge control vessels and bottoms receivers.* For each surge control vessel or bottoms receiver that meets the capacity and vapor pressure thresholds for a Group 1 storage tank, you must meet emission limits and work practice standards specified in Table 4 to this subpart.

(s) For the purposes of determining Group status for continuous process vents, batch process vents, and storage tanks in §§ 63.2455, 63.2460, and 63.2470, hydrazine is to be considered an organic HAP.

§ 63.2455 What requirements must I meet for continuous process vents?

(a) You must meet each emission limit in Table 1 to this subpart that applies to your continuous process vents, and you must meet each applicable requirement specified in paragraphs (b) through (c) of this section.

(b) For each continuous process vent, you must either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in § 63.115(d), except as specified in paragraphs (b)(1) through (3) of this section.

(1) You are not required to determine the Group status or the TRE index value for any continuous process vent that is combined with Group 1 batch process vents before a control device or recovery device because the requirements of § 63.2450(c)(2)(i) apply to the combined stream.

(2) When a TRE index value of 4.0 is referred to in § 63.115(d), TRE index values of 5.0 for existing affected sources and 8.0 for new and reconstructed affected sources apply for the purposes of this subpart.

(3) When § 63.115(d) refers to "emission reductions specified in § 63.113(a)," the reductions specified in Table 1 to this subpart apply for the purposes of this subpart.

(c) If you use a recovery device to maintain the TRE above a specified threshold, you must meet the requirements of § 63.982(e) and the requirements referenced therein, except as specified in § 63.2450 and paragraph (c)(1) of this section.

(1) When § 63.993 uses the phrase "the TRE index value is between the level specified in a referencing subpart and 4.0," the phrase "the TRE index value is >1.9 but ≤5.0" applies for an existing affected source, and the phrase "the TRE index value is >5.0 but ≤8.0" applies for a new and reconstructed affected source, for the purposes of this subpart.

(2) [Reserved]

§ 63.2460 What requirements must I meet for batch process vents?

(a) You must meet each emission limit in Table 2 to this subpart that applies to you, and you must meet each applicable requirement specified in paragraphs (b) and (c) of this section.

(b) *Group status.* If a process has batch process vents, as defined in § 63.2550, you must determine the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process using the procedures specified in § 63.1257(d)(2)(i) and (ii), except as specified in paragraphs (b)(1) through (4) of this section.

(1) To calculate emissions caused by the heating of a vessel to a temperature lower than the boiling point, you must use the procedures in § 63.1257(d)(2)(i)(C)(*3*).

(2) To calculate emissions from depressurization, you must use the procedures in § 63.1257(d)(2)(i)(D)(*10*).

(3) To calculate emissions from vacuum systems for the purposes of this subpart, the receiving vessel is part of the vacuum system, and terms used in Equation 33 to 40 CFR part 63, subpart GGG, are defined as follows:

P_{system} = absolute pressure of receiving vessel;

P_i = partial pressure of the HAP at the receiver temperature;

P_j = partial pressure of condensable (including HAP) at the receiver temperature;

MW_i = molecular weight of the individual HAP in the emission stream, with HAP partial pressures calculated at the temperature of the receiver.

(4) You may elect to designate the batch process vents within a process as Group 1 and not calculate uncontrolled emissions under either of the situations described in paragraph (b)(4)(i) or (ii) of this section.

(i) If you comply with the alternative standard specified in § 63.2505.

(ii) If all Group 1 batch process vents within a process are controlled; you conduct the performance test under hypothetical worst case conditions, as defined in § 63.1257(b)(8)(i)(B); and the emission profile is based on capture and control system limitations as specified in § 63.1257(b)(8)(ii)(C).

(c) Exceptions to the requirements in subpart SS of this part 63 are specified in paragraphs (c)(1) through (7) of this section.

(1) *Process condensers.* Process condensers, as defined in § 63.1251, are not considered to be control devices for batch process vents.

(2) *Initial compliance.* (i) To demonstrate initial compliance with a percent reduction emission limit in Table 2 to this subpart, you must compare the sums of the controlled and uncontrolled emissions for the applicable Group 1 batch process vents within the process and show that the specified reduction is met.

(ii) When you conduct a performance test or design evaluation for a control device used to control emissions from batch process vents, you must establish emission profiles and conduct the test under worst-case conditions according to § 63.1257(b)(8) instead of under normal operating conditions as specified in § 63.7(e)(1). The requirements in § 63.997(e)(1)(i) and (iii) also do not apply for performance tests conducted to determine compliance with the emission limits for batch process vents. References in § 63.997(b)(1) to "methods specified in § 63.997(e)" include the methods specified in § 63.1257(b)(8).

(iii) As an alternative to conducting a performance test or design evaluation for a condenser, you may determine controlled emissions using the procedures specified in § 63.1257(d)(3)(i)(B).

(iv) When § 63.1257(d)(3)(i)(B)(*7*) specifies that condenser-controlled emissions from an air dryer must be calculated using Equation 11 of 40 CFR part 63, subpart GGG, with "V equal to the air flow rate," it means "V equal to the dryer outlet gas flow rate," for the purposes of this subpart. Alternatively, you may use Equation 12 of 40 CFR part 63, subpart GGG, with V equal to the dryer inlet air flow rate. Account for time as appropriate in either equation.

(v) You must demonstrate that each process condenser is properly operated according to the procedures specified in § 63.1257(d)(2)(i)(C)(*4*)(*ii*) and (d)(3)(iii)(B). The reference in § 63.1257(d)(3)(iii)(B) to the alternative standard in § 63.1254(c) means § 63.2505 for the purposes of this subpart. As an alternative to measuring the exhaust gas temperature, as required by § 63.1257(d)(3)(iii)(B), you may elect to measure the liquid temperature in the receiver.

(vi) You must conduct a subsequent performance test or compliance demonstration equivalent to an initial compliance demonstration within 180 days of a change in the worst-case conditions.

(3) *Establishing operating limits.* You must establish operating limits under the conditions required for your initial compliance demonstration, except you may elect to establish operating limit(s) for conditions other than those under which a performance test was conducted as specified in paragraph (c)(3)(i) of this section and, if applicable, paragraph (c)(3)(ii) of this section.

(i) The operating limits may be based on the results of the performance test and supplementary information such as engineering assessments and manufacturer's recommendations. These

limits may be established for conditions as unique as individual emission episodes for a batch process. You must provide rationale in the precompliance report for the specific level for each operating limit, including any data and calculations used to develop the limit and a description of why the limit indicates proper operation of the control device. The procedures provided in this paragraph (c)(3)(i) have not been approved by the Administrator and determination of the operating limit using these procedures is subject to review and approval by the Administrator.

(ii) If you elect to establish separate monitoring levels for different emission episodes within a batch process, you must maintain records in your daily schedule or log of processes indicating each point at which you change from one operating limit to another, even if the duration of the monitoring for an operating limit is less than 15 minutes. You must maintain a daily schedule or log of processes according to § 63.2525(c).

(4) *Averaging periods.* As an alternative to the requirement for daily averages in § 63.998(b)(3), you may determine averages for operating blocks. An operating block is a period of time that is equal to the time from the beginning to end of batch process operations within a process.

(5) *Periodic verification.* For a control device with total inlet HAP emissions less than 1 tpy, you must establish an operating limit(s) for a parameter(s) that you will measure and record at least once per averaging period (*i.e.*, daily or block) to verify that the control device is operating properly. You may elect to measure the same parameter(s) that is required for control devices that control inlet HAP emissions equal to or greater than 1 tpy. If the parameter will not be measured continuously, you must request approval of your proposed procedure in the precompliance report. You must identify the operating limit(s) and the measurement frequency, and you must provide rationale to support how these measurements demonstrate the control device is operating properly.

(6) *Outlet concentration correction for supplemental gases.* If you use a control device other than a combustion device to comply with a TOC, organic HAP, or hydrogen halide and halogen HAP outlet concentration emission limit for batch process vents, you must correct the actual concentration for supplemental gases using Equation 1 of this section; you may use process knowledge and representative operating data to determine the fraction of the total flow due to supplemental gas.

$$C_a = C_m\left(\frac{Q_s + Q_a}{Q_a}\right) \qquad \text{(Eq. 1)}$$

Where:

C_a = corrected outlet TOC, organic HAP, or hydrogen halide and halogen HAP concentration, dry basis, ppmv;

C_m = actual TOC, organic HAP, or hydrogen halide and halogen HAP concentration measured at control device outlet, dry basis, ppmv;

Q_a = total volumetric flowrate of all gas streams vented to the control device, except supplemental gases;

Q_s = total volumetric flowrate of supplemental gases.

(7) If flow to a control device could be intermittent, you must install, calibrate, and operate a flow indicator at the inlet or outlet of the control device to identify periods of no flow. Periods of no flow may not be used in daily or block averages, and it may not be used in fulfilling a minimum data availability requirement.

§ 63.2465 What requirements must I meet for process vents that emit hydrogen halide and halogen HAP or PM HAP?

(a) You must meet each emission limit in Table 3 to this subpart that applies to you, and you must meet each applicable requirement in paragraphs (b) through (d) of this section.

(b) If any process vents within a process emit hydrogen halide and halogen HAP, you must determine and sum the uncontrolled hydrogen halide and halogen HAP emissions from each of the process vents within the process using the procedures specified in § 63.1257(d)(2)(i) and (ii).

(c) If collective uncontrolled hydrogen halide and halogen HAP emissions from the process vents within a process are greater than or equal to 1,000 pounds per year (lb/yr), you must comply with § 63.994 and the requirements referenced therein, except as specified in paragraphs (c)(1) through (3) of this section.

(1) When § 63.994(b)(1) requires a performance test, you may elect to conduct a design evaluation in accordance with § 63.1257(a)(1).

(2) When § 63.994(b)(1) refers to "a combustion device followed by a halogen scrubber or other halogen reduction device," it means any combination of control devices used to meet the emission limits specified in Table 3 to this subpart.

(3) Section 63.994(b)(2) does not apply for the purposes of this section.

(d) To demonstrate compliance with the particulate matter (PM) HAP emission limit for new sources in Table 3 to this subpart, you must comply with paragraphs (d)(1) and (2) of this section.

(1) Use Method 5 of appendix A of 40 CFR part 60 to determine the concentration of PM HAP at the inlet and outlet of a control device.

(2) Comply with the monitoring requirements specified in § 63.1366(b)(1)(xi) for each fabric filter used to control PM HAP emissions.

§ 63.2470 What requirements must I meet for storage tanks?

(a) You must meet each emission limit in Table 4 to this subpart that applies to your storage tanks, and you must meet each applicable requirement specified in paragraphs (b) through (e) of this section.

(b) If you reduce organic HAP emissions by venting emissions to a fuel gas system or process, you must meet the requirements of § 63.982(d) and the requirements referenced therein.

(c) *Exceptions to subparts SS and WW of this part 63.*

(1) If you conduct a performance test or design evaluation for a control device used to control emissions only from storage tanks, you must establish operating limits, conduct monitoring, and keep records using the same procedures as required in subpart SS of this part 63 for control devices used to reduce emissions from process vents instead of the procedures specified in §§ 63.985(c), 63.998(d)(2)(i), and 63.999(b)(2).

(2) When the term "storage vessel" is used in subparts SS and WW of this part 63, the term "storage tank," as defined in § 63.2550 applies for the purposes of this subpart.

(d) *Planned routine maintenance.* The emission limits in Table 4 to this subpart for control devices used to control emissions from storage tanks do not apply during periods of planned routine maintenance. Periods of planned routine maintenance of each control device, during which the control device does not meet the emission limit specified in Table 4 to this subpart, must not exceed 240 hours per year (hr/yr). You may submit an application to the Administrator requesting an extension of this time limit to a total of 360 hr/yr. The application must explain why the extension is needed, it must indicate that no material will be added to the storage tank between the time the 240-hr limit is exceeded and the control device is again operational, and it must be submitted at least 60 days before the 240-hr limit will be exceeded.

(e) *Vapor balancing alternative.* As an alternative to the emission limits specified in Table 4 to this subpart, you may elect to implement vapor balancing in accordance with § 63.1253(f), except

as specified in paragraphs (e)(1) through (3) of this section.

(1) When § 63.1253(f)(6)(i) refers to a 90 percent reduction, 95 percent applies for the purposes of this subpart.

(2) To comply with § 63.1253(f)(6)(i), the owner or operator of an offsite cleaning and reloading facility must comply with §§ 63.2445 through 63.2550 instead of complying with § 63.1253(f)(7)(ii).

(3) You may elect to set a pressure relief device to a value less than the 2.5 pounds per square inch gage pressure (psig) required in § 63.1253(f)(5) if you provide rationale in your notification of compliance status report explaining why the alternative value is sufficient to prevent breathing losses at all times.

§ 63.2475 What requirements must I meet for transfer racks?

(a) You must comply with each emission limit and work practice standard in Table 5 to this subpart that applies to your transfer racks, and you must meet each applicable requirement in paragraphs (b) and (c) of this section.

(b) When the term "high throughput transfer rack" is used in subpart SS of this part 63, the term "Group 1 transfer rack," as defined in § 63.2550, applies for the purposes of this subpart.

(c) If you reduce organic HAP emissions by venting emissions to a fuel gas system or process, you must meet the requirements of § 63.982(d) and the requirements referenced therein.

§ 63.2480 What requirements must I meet for equipment leaks?

(a) You must meet each requirement in Table 6 to this subpart that applies to your equipment leaks, except as specified in paragraphs (b) and (c) of this section.

(b) The requirements for pressure testing in § 63.1036(b) may be applied to all processes, not just batch processes.

(c) For the purposes of this subpart, pressure testing for leaks in accordance with § 63.1036(b) is not required after reconfiguration of an equipment train if flexible hose connections are the only disturbed equipment.

§ 63.2485 What requirements must I meet for wastewater streams and liquid streams in open systems within an MCPU?

(a) You must meet each requirement in Table 7 to this subpart that applies to your wastewater streams and liquid streams in open systems within an MCPU, except as specified in paragraphs (b) through (l) of this section.

(b) *Wastewater HAP.* Where § 63.105 and §§ 63.132 through 63.148 refer to compounds in Table 9 of subpart G of this part 63, the compounds in Tables 8 and 9 to this subpart apply for the purposes of this subpart.

(c) *Group 1 wastewater.* Section 63.132(c)(1) (i) and (ii) do not apply. For the purposes of this subpart, a process wastewater stream is Group 1 for compounds in Tables 8 and 9 to this subpart if any of the conditions specified in paragraphs (c) (1) through (3) of this section are met.

(1) The total annual average concentration of compounds in Table 8 to this subpart is greater than 50 ppmw, and the combined total annual average concentration of compounds in Tables 8 and 9 to this subpart is greater than or equal to 10,000 ppmw at any flowrate.

(2) The total annual average concentration of compounds Table 8 to this subpart is greater 50 ppmw, the combined total annual average concentration of compounds in Tables 8 and 9 to this subpart is greater than or equal to 1,000 ppmw, and the annual average flowrate is greater than or equal to 1 l/min.

(3) The total annual average concentration of compounds in Table 8 to this subpart is less than or equal to 50 ppmw, the total annual average concentration of compounds in Table 9 to this subpart is greater than or equal to 30,000 ppmw at an existing source or greater than or equal to 4,500 ppmw at a new source, and the total annual load of compounds in Table 9 to this subpart is greater than or equal to 1 tpy.

(d) *Wastewater tank requirements.* (1) When §§ 63.133 and 63.147 reference floating roof requirements in §§ 63.119 and 63.120, the corresponding requirements in subpart WW of this part 63 may be applied for the purposes of this subpart.

(2) When § 63.133 refers to Table 9 of subpart G of this part 63, the maximum true vapor pressure in the table shall be limited to the HAP listed in Tables 8 and 9 to this subpart.

(3) For the purposes of this subpart, the requirements of § 63.133(a)(2) are satisfied by operating and maintaining a fixed roof if you demonstrate that the total soluble and partially soluble HAP emissions from the wastewater tank are no more than 5 percent higher than the emissions would be if the contents of the wastewater tank were not heated, treated by an exothermic reaction, or sparged.

(4) The emission limits specified in §§ 63.133(b)(2) and 63.139 for control devices used to control emissions from wastewater tanks do not apply during periods of planned routine maintenance of the control device(s) of no more than 240 hr/yr. You may request an extension to a total of 360 hr/yr in accordance with the procedures specified in § 63.2470(d).

(e) *Individual drain systems.* The provisions of § 63.136(e)(3) apply except as specified in paragraph (e)(1) of this section.

(1) A sewer line connected to drains that are in compliance with § 63.136(e)(1) may be vented to the atmosphere, provided that the sewer line entrance to the first downstream junction box is water sealed and the sewer line vent pipe is designed as specified in § 63.136(e)(2)(ii)(A).

(2) [Reserved]

(f) *Closed-vent system requirements.* When § 63.148(k) refers to closed vent systems that are subject to the requirements of § 63.172, the requirements of either § 63.172 or § 63.1034 apply for the purposes of this subpart.

(g) *Halogenated vent stream requirements.* For each halogenated vent stream from a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream that is vented through a closed-vent system to a combustion device to reduce organic HAP emissions, you must meet the same emission limits as specified for batch process vents in item 2 of Table 2 to this subpart.

(h) *Alternative test methods.* (1) As an alternative to the test methods specified in § 63.144(b)(5)(i), you may use Method 8260 or 8270 as specified in § 63.1257(b)(10)(iii).

(2) As an alternative to using the methods specified in § 63.144(b)(5)(i), you may conduct wastewater analyses using Method 1666 or 1671 of 40 CFR part 136 and comply with the sampling protocol requirements specified in § 63.144(b)(5)(ii). The validation requirements specified in § 63.144(b)(5)(iii) do not apply if you use Method 1666 or 1671 of 40 CFR part 136.

(3) As an alternative to using Method 18 of 40 CFR part 60, as specified in §§ 63.139(c)(1)(ii) and 63.145(i)(2), you may elect to use Method 25A of 40 CFR part 60 as specified in § 63.997.

(i) *Offsite management and treatment option.* (1) If you ship wastewater to an offsite treatment facility that meets the requirements of § 63.138(h), you may elect to document in your notification of compliance status report that the wastewater will be treated as hazardous waste at a facility that meets the requirements of § 63.138(h) as an alternative to having the offsite facility submit the certification specified in § 63.132(g)(2).

(2) As an alternative to the management and treatment options specified in § 63.132(g)(2), any affected

wastewater stream (or residual removed from an affected wastewater stream) with a total annual average concentration of compounds in Table 8 to this subpart less than 50 ppmw may be transferred offsite in accordance with paragraphs (i)(2) (i) and (ii) of this section.

(i) The transferee (or you) must demonstrate that less than 5 percent of the HAP in Table 9 to this subpart is emitted from the waste management units up to the activated sludge unit.

(ii) The transferee must treat the wastewater stream or residual in a biological treatment unit in accordance with §§ 63.138 and 63.145 and the requirements referenced therein.

(j) You must determine the annual average concentration and annual average flowrate for wastewater streams for each MCPU. The procedures for flexible operation units specified in § 63.144 (b) and (c) do not apply for the purposes of this subpart.

(k) The requirement to correct outlet concentrations from combustion devices to 3 percent oxygen in §§ 63.139(c)(1)(ii) and 63.146(i)(6) applies only if supplemental gases are combined with a vent stream from a Group 1 wastewater stream. If emissions are controlled with a vapor recovery system as specified in § 63.139(c)(2), you must correct for supplemental gases as specified in § 63.2460(c)(6).

(l) *Requirements for liquid streams in open systems.* (1) References in § 63.149 to § 63.100(b) mean § 63.2435(b) for the purposes of this subpart.

(2) When § 63.149(e) refers to 40 CFR 63.100(l) (1) or (2), § 63.2445(a) applies for the purposes of this subpart.

(3) When § 63.149 uses the term "chemical manufacturing process unit," the term "MCPU" applies for the purposes of this subpart.

(4) When § 63.149(e)(1) refers to characteristics of water that contain compounds in Table 9 to 40 CFR part 63, subpart G, the characteristics specified in paragraphs (c) (1) through (3) of this section apply for the purposes of this subpart.

(5) When § 63.149(e)(2) refers to characteristics of water that contain compounds in Table 9 to 40 CFR part 63, subpart G, the characteristics specified in paragraph (c)(2) of this section apply for the purposes of this subpart.

§ 63.2490 What requirements must I meet for heat exchange systems?

(a) You must comply with each requirement in Table 10 to this subpart that applies to your heat exchange systems, except as specified in paragraphs (b) and (c) of this section.

(b) The phrase "a chemical manufacturing process unit meeting the conditions of § 63.100 (b)(1) through (b)(3) of this section" in § 63.104(a) means "an MCPU meeting the conditions of § 63.2435" for the purposes of this subpart.

(c) The reference to § 63.100(c) in § 63.104(a) does not apply for the purposes of this subpart.

Alternative Means of Compliance

§ 63.2495 How do I comply with the pollution prevention standard?

(a) You may elect to comply with the pollution prevention alternative requirements specified in paragraphs (a) (1) and (2) of this section in lieu of the emission limitations and work practice standards contained in Tables 1 through 7 to this subpart for any MCPU for which initial startup occurred before April 4, 2002.

(1) You must reduce the production-indexed HAP consumption factor (HAP factor) by at least 65 percent from a 3-year average baseline beginning no earlier than the 1994 through 1996 calendar years. For any reduction in the HAP factor that you achieve by reducing HAP that are also volatile organic compounds (VOC), you must demonstrate an equivalent reduction in the production-indexed VOC consumption factor (VOC factor) on a mass basis. For any reduction in the HAP factor that you achieve by reducing a HAP that is not a VOC, you may not increase the VOC factor.

(2) Any MCPU for which you seek to comply by using the pollution prevention alternative must begin with the same starting material(s) and end with the same product(s). You may not comply by eliminating any steps of a process by transferring the step offsite (to another manufacturing location). You may also not merge a solvent recovery step conducted offsite to onsite and as part of an existing process as a method of reducing consumption.

(3) You may comply with the requirements of paragraph (a)(1) of this section for a series of processes, including situations where multiple processes are merged, if you demonstrate to the satisfaction of the Administrator that the multiple processes were merged after the baseline period into an existing process or processes.

(b) *Exclusions.* (1) You must comply with the emission limitations and work practice standards contained in Tables 1 through 7 to this subpart for all HAP that are generated in the MCPU and that are not included in consumption, as defined in § 63.2550. Hydrogen halides that are generated as a result of combustion control must be controlled according to the requirements of § 63.994 and the requirements referenced therein.

(2) You may not merge nondedicated formulation or nondedicated solvent recovery processes with any other processes.

(c) *Initial compliance procedures.* To demonstrate initial compliance with paragraph (a) of this section, you must prepare a demonstration summary in accordance with paragraph (c) (1) of this section and calculate baseline and target annual HAP and VOC factors in accordance with paragraphs (c) (2) and (3) of this section.

(1) *Demonstration plan.* You must prepare a pollution prevention demonstration plan that contains, at a minimum, the information in paragraphs (c)(1) (i) through (iii) of this section for each MCPU for which you comply with paragraph (a) of this section.

(i) Descriptions of the methodologies and forms used to measure and record consumption of HAP and VOC compounds.

(ii) Descriptions of the methodologies and forms used to measure and record production of the product(s).

(iii) Supporting documentation for the descriptions provided in accordance with paragraphs (c)(1) (i) and (ii) of this section including, but not limited to, samples of operator log sheets and daily, monthly, and/or annual inventories of materials and products. You must describe how this documentation will be used to calculate the annual factors required in paragraph (d) of this section.

(2) *Baseline factors.* You must calculate baseline HAP and VOC factors by dividing the consumption of total HAP and total VOC by the production rate, per process, for the first 3-year period in which the process was operational, beginning no earlier than the period consisting of the 1994 through 1996 calendar years.

(3) *Target annual factors.* You must calculate target annual HAP and VOC factors. The target annual HAP factor must be equal to 35 percent of the baseline HAP factor. The target annual VOC factor must be lower than the baseline VOC factor by an amount equivalent to the reduction in any HAP that is also a VOC, on a mass basis. The target annual VOC factor may be the same as the baseline VOC factor if the only HAP you reduce is not a VOC.

(d) *Continuous compliance requirements.* You must calculate annual rolling average values of the HAP and VOC factors (annual factors) in accordance with the procedures

specified in paragraphs (d) (1) through (3) of this section. To show continuous compliance, the annual factors must be equal to or less than the target annual factors calculated according to paragraph (c)(3) of this section.

(1) To calculate the annual factors, you must divide the consumption of both total HAP and total VOC by the production rate, per process, for 12-month periods at the frequency specified in either paragraph (d) (2) or (3) of this section, as applicable.

(2) For continuous processes, you must calculate the annual factors every 30 days for the 12-month period preceding the 30th day (i.e., annual rolling average calculated every 30 days). A process with both batch and continuous operations is considered a continuous process for the purposes of this section.

(3) For batch processes, you must calculate the annual factors every 10 batches for the 12-month period preceding the 10th batch (*i.e.*, annual rolling average calculated every 10 batches), except as specified in paragraphs (d)(3) (i) and (ii) of this section.

(i) If you produce more than 10 batches during a month, you must calculate the annual factors at least once during that month.

(ii) If you produce less than 10 batches in a 12-month period, you must calculate the annual factors for the number of batches in the 12-month period since the previous calculations.

(e) *Records.* You must keep records of HAP and VOC consumption, production, and the rolling annual HAP and VOC factors for each MCPU for which you are complying with paragraph (a) of this section.

(f) *Reporting.* (1) You must include the pollution prevention demonstration plan in the precompliance report required by § 63.2520(c).

(2) You must identify all days when the annual factors were above the target factors in the compliance reports.

§ 63.2500 How do I comply with emissions averaging?

(a) For an existing source, you may elect to comply with the percent reduction emission limitations in Tables 1, 2, 4, 5, and 7 to this subpart by complying with the emissions averaging provisions specified in § 63.150, except as specified in paragraphs (b) through (f) of this section.

(b) The batch process vents in an MCPU collectively are considered one individual emission point for the purposes of emissions averaging, except that only individual batch process vents must be excluded to meet the requirements of § 63.150(d)(5).

(c) References in § 63.150 to §§ 63.112 through 63.130 mean the corresponding requirements in §§ 63.2450 through 63.2490, including applicable monitoring, recordkeeping, and reporting.

(d) References to "periodic reports" in § 63.150 mean "compliance report" for the purposes of this subpart.

(e) For batch process vents, estimate uncontrolled emissions for a standard batch using the procedures in § 63.1257(d)(2)(i) and (ii) instead of the procedures in § 63.150(g)(2). Multiply the calculated emissions per batch by the number of batches per month when calculating the monthly emissions for use in calculating debits and credits.

(f) References to "storage vessels" in § 63.150 mean "storage tank" as defined in § 63.2550 for the purposes of this subpart.

§ 63.2505 How do I comply with the alternative standard?

As an alternative to complying with the emission limits and work practice standards for process vents and storage tanks in Tables 1 through 4 to this subpart and the requirements in §§ 63.2455 through 63.2470, you may comply with the emission limits in paragraph (a) of this section and demonstrate compliance in accordance with the requirements in paragraph (b) of this section.

(a) *Emission limits and work practice standards.* (1) You must route vent streams through a closed-vent system to a control device that reduces HAP emissions as specified in either paragraph (a)(1)(i) or (ii) of this section.

(i) If you use a combustion control device, it must reduce HAP emissions as specified in paragraphs (a)(1)(i)(A), (B), and (C) of this section.

(A) To an outlet TOC concentration of 20 parts per million by volume (ppmv) or less.

(B) To an outlet concentration of hydrogen halide and halogen HAP of 20 ppmv or less.

(C) As an alternative to paragraph (a)(1)(i)(B) of this section, if you control halogenated vent streams emitted from a combustion device followed by a scrubber, reduce the hydrogen halide and halogen HAP generated in the combustion device by greater than or equal to 95 percent by weight in the scrubber.

(ii) If you use a noncombustion control device(s), it must reduce HAP emissions to an outlet total organic HAP concentration of 50 ppmv or less, and an outlet concentration of hydrogen halide and halogen HAP of 50 ppmv or less.

(2) Any Group 1 process vents within a process that are not controlled according to this alternative standard must be controlled according to the emission limits in Tables 1 through 3 to this subpart.

(b) *Compliance requirements.* To demonstrate compliance with paragraph (a) of this section, you must meet the requirements of § 63.1258(b)(5)(i) beginning no later than the initial compliance date specified in § 63.2445, except as specified in paragraphs (b)(1) through (7) of this section.

(1) You must comply with the requirements in § 63.983 and the requirements referenced therein for closed-vent systems.

(2) When § 63.1258(b)(5)(i) refers to §§ 63.1253(d) and 63.1254(c), the requirements in paragraph (a) of this section apply for the purposes of this subpart.

(3) You must submit the results of any determination of the target analytes or predominant HAP in the notification of compliance status report.

(4) When § 63.1258(b)(5)(i)(B) refers to "HCl," it means "total hydrogen halide and halogen HAP" for the purposes of this subpart.

(5) If you elect to comply with the requirement to reduce hydrogen halide and halogen HAP by greater than or equal to 95 percent by weight in paragraph (a)(1)(i)(C) of this section, you must meet the requirements in paragraphs (b)(5)(i) and (ii) of this section.

(i) Demonstrate initial compliance with the 95 percent reduction by conducting a performance test and setting a site-specific operating limit(s) for the scrubber in accordance with § 63.994 and the requirements referenced therein. You must submit the results of the initial compliance demonstration in the notification of compliance status report.

(ii) Install, operate, and maintain CPMS for the scrubber as specified in § 63.2450(k), instead of as specified in § 63.1258(b)(5)(i)(C).

(6) If flow to the scrubber could be intermittent, you must install, calibrate, and operate a flow indicator as specified in § 63.2460(c)(7).

(7) Use the operating day as the averaging period for CEMS data and scrubber parameter monitoring data.

Notification, Reports, and Records

§ 63.2515 What notifications must I submit and when?

(a) You must submit all of the notifications in §§ 63.6(h)(4) and (5),

63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.

(b) *Initial notification.* As specified in § 63.9(b)(2), if you startup your affected source before November 10, 2003, you must submit an initial notification not later than 120 calendar days after November 10, 2003.

(2) As specified in § 63.9(b)(3), if you startup your new affected source on or after November 10, 2003, you must submit an initial notification not later than 120 calendar days after you become subject to this subpart.

(c) *Notification of performance test.* If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required in § 63.7(b)(1). For any performance test required as part of the initial compliance procedures for batch process vents in Table 2 to this subpart, you must also submit the test plan required by § 63.7(c) and the emission profile with the notification of the performance test.

§ 63.2520 What reports must I submit and when?

(a) You must submit each report in Table 11 to this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report by the date in Table 11 to this subpart and according to paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.2445 and ending on June 30 or December 31, whichever date is the first date following the end of the first 6 months after the compliance date that is specified for your affected source in § 63.2445.

(2) The first compliance report must be postmarked or delivered no later than August 31 or February 28, whichever date is the first date following the end of the first reporting period specified in paragraph (b)(1) of this section.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than August 31 or February 28, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) *Precompliance report.* You must submit a precompliance report to request approval for any of the items in paragraphs (c)(1) through (7) of this section. We will either approve or disapprove the report within 90 days after we receive it. If we disapprove the report, you must still be in compliance with the emission limitations and work practice standards in this subpart by the compliance date. To change any of the information submitted in the report, you must notify us 60 days before the planned change is to be implemented.

(1) Requests for approval to set operating limits for parameters other than those specified in §§ 63.2455 through 63.2485 and referenced therein. Alternatively, you may make these requests according to § 63.8(f).

(2) Descriptions of daily or per batch demonstrations to verify that control devices subject to § 63.2460(c)(5) are operating as designed.

(3) A description of the test conditions, data, calculations, and other information used to establish operating limits according to § 63.2460(c)(3).

(4) Data and rationale used to support an engineering assessment to calculate uncontrolled emissions in accordance with § 63.1257(d)(2)(ii).

(5) The pollution prevention demonstration plan required in § 63.2495(c)(1), if you are complying with the pollution prevention alternative.

(6) Documentation of the practices that you will implement to minimize HAP emissions from streams that contain energetics and organic peroxides, and rationale for why meeting the emission limit specified in Tables 1 through 7 to this subpart would create an undue safety hazard.

(7) For fabric filters that are monitored with bag leak detectors, an operation and maintenance plan that describes proper operation and maintenance procedures, and a corrective action plan that describes corrective actions to be taken, and the timing of those actions, when the PM concentration exceeds the set point and activates the alarm.

(d) *Notification of compliance status report.* You must submit a notification of compliance status report according to the schedule in paragraph (d)(1) of this section, and the notification of compliance status report must contain the information specified in paragraph (d)(2) of this section.

(1) You must submit the notification of compliance status report no later than 150 days after the applicable compliance date specified in § 63.2445.

(2) The notification of compliance status report must include the information in paragraphs (d)(2)(i) through (ix) of this section.

(i) The results of any applicability determinations, emission calculations, or analyses used to identify and quantify HAP emissions from the affected source.

(ii) The results of emissions profiles, performance tests, engineering analyses, design evaluations, flare compliance assessments, inspections and repairs, and calculations used to demonstrate initial compliance according to §§ 63.2455 through 63.2485. For performance tests, results must include descriptions of sampling and analysis procedures and quality assurance procedures.

(iii) Descriptions of monitoring devices, monitoring frequencies, and the operating limits established during the initial compliance demonstrations, including data and calculations to support the levels you establish.

(iv) All operating scenarios.

(v) Descriptions of worst-case operating and/or testing conditions for control devices.

(vi) Identification of parts of the affected source subject to overlapping requirements described in § 63.2535 and the authority under which you will comply.

(vii) The information specified in § 63.1039(a)(1) through (3) for each process subject to the work practice standards for equipment leaks in Table 6 to this subpart.

(viii) Identify storage tanks for which you are complying with the vapor balancing alternative in § 63.2470(g).

(ix) Records as specified in § 63.2535(i)(1) through (3) of process units used to create a PUG and calculations of the initial primary product of the PUG.

(e) *Compliance report.* The compliance report must contain the information specified in paragraphs (e)(1) through (10) of this section.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) For each SSM during which excess emissions occur, the compliance report must include records that the procedures specified in your startup, shutdown, and malfunction plan (SSMP) were followed or documentation of actions taken that are not consistent with the SSMP, and include a brief description of each malfunction.

(5) The compliance report must contain the information on deviations, as defined in § 63.2550, according to paragraphs (e)(5)(i), (ii), and (iii) of this section.

(i) If there are no deviations from any emission limit, operating limit or work practice standard specified in this subpart, include a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.

(ii) For each deviation from an emission limit, operating limit, and work practice standard that occurs at an affected source where you are not using a continuous monitoring system (CMS) to comply with the emission limit or work practice standard in this subpart, you must include the information in paragraphs (e)(5)(ii)(A) through (C) of this section. This includes periods of SSM.

(A) The total operating time of the affected source during the reporting period.

(B) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(C) Operating logs for the day(s) during which the deviation occurred, except operating logs are not required for deviations of the work practice standards for equipment leaks.

(iii) For each deviation from an emission limit or operating limit occurring at an affected source where you are using a CMS to comply with an emission limit in this subpart, you must include the information in paragraphs (e)(5)(iii)(A) through (L) of this section. This includes periods of SSM.

(A) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(B) The date, time, and duration that each CEMS was out-of-control, including the information in § 63.8(c)(8).

(C) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(D) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total operating time of the affected source during that reporting period.

(E) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(F) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the affected source during that reporting period.

(G) An identification of each HAP that is known to be in the emission stream.

(H) A brief description of the process units.

(I) A brief description of the CMS.

(J) The date of the latest CMS certification or audit.

(K) Operating logs for each day(s) during which the deviation occurred.

(L) The operating day or operating block average values of monitored parameters for each day(s) during which the deviation occurred.

(6) If you use a CEMS, and there were no periods during which it was out-of-control as specified in § 63.8(c)(7), include a statement that there were no periods during which the CEMS was out-of-control during the reporting period.

(7) Include each new operating scenario which has been operated since the time period covered by the last compliance report and has not been submitted in the notification of compliance status report or a previous compliance report. For each new operating scenario, you must provide verification that the operating conditions for any associated control or treatment device have not been exceeded and that any required calculations and engineering analyses have been performed. For the purposes of this paragraph, a revised operating scenario for an existing process is considered to be a new operating scenario.

(8) Records of process units added to a PUG as specified in § 63.2525(i)(4) and records of primary product redeterminations as specified in § 63.2525(i)(5).

(9) Applicable records and information for periodic reports as specified in referenced subparts F, G, SS, UU, WW, and GGG of this part.

(10) *Notification of process change.* (i) Except as specified in paragraph (e)(10)(ii) of this section, whenever you make a process change, or change any of the information submitted in the notification of compliance status report, that is not within the scope of an existing operating scenario, you must document the change in your compliance report. A process change does not include moving within a range of conditions identified in the standard batch. The notification must include all of the information in paragraphs (e)(10)(i)(A) through (C) of this section.

(A) A description of the process change.

(B) Revisions to any of the information reported in the original notification of compliance status report under paragraph (d) of this section.

(C) Information required by the notification of compliance status report under paragraph (d) of this section for changes involving the addition of processes or equipment at the affected source.

(ii) You must submit a report 60 days before the scheduled implementation date of any of the changes identified in paragraph (e)(10)(ii)(A), (B), or (C) of this section.

(A) Any change to the information contained in the precompliance report.

(B) A change in the status of a control device from small to large.

(C) A change from Group 2 to Group 1 for any emission point.

§ 63.2525 What records must I keep?

You must keep the records specified in paragraphs (a) through (k) of this section.

(a) Each applicable record required by subpart A of this part 63 and in referenced subparts F, G, SS, UU, WW, and GGG of this part 63.

(b) Records of each operating scenario as specified in paragraphs (b)(1) through (8) of this section.

(1) A description of the process and the type of process equipment used.

(2) An identification of related process vents, including their associated emissions episodes if not complying with the alternative standard in § 63.2505; wastewater point of determination (POD); storage tanks; and transfer racks.

(3) The applicable control requirements of this subpart, including the level of required control, and for vents, the level of control for each vent.

(4) The control device or treatment process used, as applicable, including a description of operating and/or testing conditions for any associated control device.

(5) The process vents, wastewater POD, transfer racks, and storage tanks (including those from other processes) that are simultaneously routed to the control device or treatment process(s).

(6) The applicable monitoring requirements of this subpart and any parametric level that assures compliance for all emissions routed to the control device or treatment process.

(7) Calculations and engineering analyses required to demonstrate compliance.

(8) For reporting purposes, a change to any of these elements not previously reported, except for paragraph (b)(5) of this section, constitutes a new operating scenario.

(c) A schedule or log of operating scenarios updated each time a different operating scenario is put into operation.

(d) The information specified in paragraphs (d)(1) and (2) of this section for Group 1 batch process vents in compliance with a percent reduction emission limit in Table 2 to this subpart if some of the vents are controlled to less the percent reduction requirement.

(1) Records of whether each batch operated was considered a standard batch.

(2) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.

(e) The information specified in paragraphs (e)(1) through (4) of this section for each process with Group 2 batch process vents or uncontrolled hydrogen halide and halogen HAP emissions from the sum of all batch and continuous process vents less than 1,000 lb/yr. No record is required if you documented in the notification of compliance status report that the MCPU does not process, use, or produce HAP.

(1) A record of the day each batch was completed.

(2) A record of whether each batch operated was considered a standard batch.

(3) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.

(4) Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (*e.g.*, number of batches), calculated no less frequently than monthly.

(f) A record of each time a safety device is opened to avoid unsafe conditions in accordance with § 63.2450(s).

(g) Records of the results of each CPMS calibration check and the maintenance performed, as specified in § 63.2450(k)(1).

(h) For each CEMS, you must keep records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(i) For each PUG, you must keep records specified in paragraphs (i)(1) through (5) of this section.

(1) Descriptions of the MCPU and other process units in the initial PUG required by § 63.2535(l)(1)(v).

(2) Rationale for including each MCPU and other process unit in the initial PUG (*i.e.*, identify the overlapping equipment between process units) required by § 63.2535(l)(1)(v).

(3) Calculations used to determine the primary product for the initial PUG required by § 63.2535(l)(2)(iv).

(4) Descriptions of process units added to the PUG after the creation date and rationale for including the additional process units in the PUG as required by § 63.2535(l)(1)(v).

(5) The calculation of each primary product redetermination required by § 63.2535(l)(2)(iv).

(j) In the SSMP required by § 63.6(e)(3), you are not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.

(k) For each bag leak detector used to monitor PM HAP emissions from a fabric filter, maintain records of any bag leak detection alarm, including the date and time, with a brief explanation of the cause of the alarm and the corrective action taken.

Other Requirements and Information

§ 63.2535 What compliance options do I have if part of my plant is subject to both this subpart and another subpart?

For any equipment, emission stream, or wastewater stream subject to the provisions of both this subpart and another rule, you may elect to comply only with the provisions as specified in paragraphs (a) through (l) of this section. You also must identify the subject equipment, emission stream, or wastewater stream, and the provisions with which you will comply, in your notification of compliance status report required by § 63.2520(d).

(a) *Compliance with other subparts of this part 63.* If you have an MCPU that includes a batch process vent that also is part of a CMPU as defined in subparts F and G of this part 63, you must comply with the emission limits; operating limits; work practice standards; and the compliance, monitoring, reporting and recordkeeping requirements for batch process vents in this subpart, and you must continue to comply with the requirements in subparts F, G, and H of this part 63 that are applicable to the CMPU and associated equipment.

(b) *Compliance with 40 CFR parts 264 and 265, subparts AA, BB, and/or CC.* (1) After the compliance dates specified in § 63.2445, if a control device that you use to comply with this subpart is also subject to monitoring, recordkeeping, and reporting requirements in 40 CFR part 264, subpart AA, BB, or CC; or the monitoring and recordkeeping requirements in 40 CFR part 265, subpart AA, BB, or CC; and you comply with the periodic reporting requirements under 40 CFR part 264, subpart AA, BB, or CC that would apply to the device if your facility had final-permitted status, you may elect to comply either with the monitoring, recordkeeping, and reporting requirements of this subpart; or with the monitoring and recordkeeping requirements in 40 CFR part 264 or 265 and the reporting requirements in 40 CFR part 264, as described in this paragraph (b)(1), which constitute compliance with the monitoring, recordkeeping, and reporting requirements of this subpart. If you elect to comply with the monitoring, recordkeeping, and reporting requirements in 40 CFR parts 264 and/or 265, you must report the information described in § 63.2520(e).

(2) After the compliance dates specified in § 63.2445, if you have an affected source with equipment that is also subject to 40 CFR part 264, subpart BB, or to 40 CFR part 265, subpart BB, then compliance with the recordkeeping and reporting requirements of 40 CFR parts 264 and/or 265 may be used to comply with the recordkeeping and reporting requirements of this subpart, to the extent that the requirements of 40 CFR parts 264 and/or 265 duplicate the requirements of this subpart.

(c) *Compliance with 40 CFR part 60, subpart Kb and 40 CFR part 61, subpart Y.* After the compliance dates specified in § 63.2445, you are in compliance with the provisions of this subpart FFFF for any storage tank that is assigned to an MCPU and that is both controlled with a floating roof and in compliance with the provisions of either 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y. You are in compliance with this subpart FFFF if you have a storage tank with a fixed roof, closed-vent system, and control device in compliance with the provisions of either 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y, except that you must comply with the monitoring, recordkeeping, and reporting requirements in this subpart FFFF. Alternatively, if a storage tank assigned to an MCPU is subject to control under 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y, you may elect to

comply only with the requirements for Group 1 storage tanks in this subpart FFFF.

(d) *Compliance with subpart I, GGG, or MMM of this part 63.* After the compliance dates specified in § 63.2445, if you have an affected source with equipment subject to subpart I, GGG, or MMM of this part 63, you may elect to comply with the provisions of subpart H, GGG, or MMM of this part 63, respectively, for all such equipment.

(e) *Compliance with subpart GGG of this part 63 for wastewater.* After the compliance dates specified in § 63.2445, if you have an affected source subject to this subpart and you have an affected source that generates wastewater streams that meet the applicability thresholds specified in § 63.1256, you may elect to comply with the provisions of this subpart FFFF for all such wastewater streams.

(f) *Compliance with subpart MMM of this part 63 for wastewater.* After the compliance dates specified in § 63.2445, if you have an affected source subject to this subpart, and you have an affected source that generates wastewater streams that meet the applicability thresholds specified in § 63.1362(d), you may elect to comply with the provisions of this subpart FFFF for all such wastewater streams (except that the 99 percent reduction requirement for streams subject to § 63.1362(d)(10) still applies).

(g) *Compliance with other regulations for wastewater.* After the compliance dates specified in § 63.2445, if you have a Group 1 wastewater stream that is also subject to provisions in 40 CFR parts 260 through 272, you may elect to determine whether this subpart or 40 CFR parts 260 through 272 contain the more stringent control requirements (*e.g.*, design, operation, and inspection requirements for waste management units; numerical treatment standards; etc.) and the more stringent testing, monitoring, recordkeeping, and reporting requirements. Compliance with provisions of 40 CFR parts 260 through 272 that are determined to be more stringent than the requirements of this subpart constitute compliance with this subpart. For example, provisions of 40 CFR parts 260 through 272 for treatment units that meet the conditions specified in § 63.138(h) constitute compliance with this subpart. You must identify in the notification of compliance status report required by § 63.2520(d) the information and procedures that you used to make any stringency determinations.

(h) *Compliance with 40 CFR part 60, subpart DDD, III, NNN, or RRR.* After the compliance dates specified in § 63.2445, if you have an MCPU that contains equipment subject to the provisions of this subpart that are also subject to the provisions of 40 CFR part 60, subpart DDD, III, NNN, or RRR, you may elect to apply this subpart to all such equipment in the MCPU. If an MCPU subject to the provisions of this subpart has equipment to which this subpart does not apply but which is subject to a standard in 40 CFR part 60, subpart DDD, III, NNN, or RRR, you may elect to comply with the requirements for Group 1 process vents in this subpart for such equipment. If you elect any of these methods of compliance, you must consider all total organic compounds, minus methane and ethane, in such equipment for purposes of compliance with this subpart, as if they were organic HAP. Compliance with the provisions of this subpart, in the manner described in this paragraph (h), will constitute compliance with 40 CFR part 60, subpart DDD, III, NNN, or RRR, as applicable.

(i) *Compliance with 40 CFR part 61, subpart BB.* (1) After the compliance dates specified in § 63.2445, a Group 1 transfer rack, as defined in § 63.2550, that is also subject to the provisions of 40 CFR part 61, subpart BB, you are required to comply only with the provisions of this subpart.

(2) After the compliance dates specified in § 63.2445, a Group 2 transfer rack, as defined in § 63.2550, that is also subject to the provisions of 40 CFR part 61, subpart BB, is required to comply with the provisions of either paragraph (i)(2)(i) or (ii) of this section.

(i) If the transfer rack is subject to the control requirements specified in § 61.302 of 40 CFR part 61, subpart BB, then you may elect to comply with either the requirements of 40 CFR part 61, subpart BB, or the requirements for Group 1 transfer racks under this subpart FFFF.

(ii) If the transfer rack is subject only to reporting and recordkeeping requirements under 40 CFR part 61, subpart BB, then you are required to comply only with the reporting and recordkeeping requirements specified in this subpart for Group 2 transfer racks, and you are exempt from the reporting and recordkeeping requirements in 40 CFR part 61, subpart BB.

(j) *Compliance with 40 CFR part 61, subpart FF.* After the compliance date specified in § 63.2445, for a Group 1 or Group 2 wastewater stream that is also subject to the provisions of 40 CFR 61.342(c) through (h), and is not exempt under 40 CFR 61.342(c)(2) or (3), you may elect to comply only with the requirements for Group 1 wastewater streams in this subpart FFFF. If a Group 2 wastewater stream is exempted from 40 CFR 61.342(c)(1) under 40 CFR 61.342(c)(2) or (3), then you are required to comply only with the reporting and recordkeeping requirements specified in this subpart for Group 2 wastewater streams, and you are exempt from the requirements in 40 CFR part 61, subpart FF.

(k) *Compliance with 40 CFR part 60, subpart VV, and 40 CFR part 61, subpart V.* After the compliance date specified in § 63.2445, if you have an affected source with equipment that is also subject to the requirements of 40 CFR part 60, subpart VV, or 40 CFR part 61, subpart V, you may elect to apply this subpart to all such equipment. Alternatively, if you have an affected source with no continuous process vents and equipment that is also subject to the requirements of 40 CFR part 60, subpart VV, or 40 CFR part 61, subpart V, you may elect to comply with 40 CFR part 60, subpart VV or 40 CFR part 61, subpart V, as applicable, for all such equipment.

(l) *Applicability of process units included in a process unit group.* You may elect to develop and comply with the requirements for PUG in accordance with paragraphs (l)(1) through (3) of this section.

(1) *Procedures to create process unit groups.* Develop and document changes in a PUG in accordance with the procedures specified in paragraphs (l)(1)(i) through (v) of this section.

(i) Initially, identify an MCPU that is created from nondedicated equipment that will operate on or after November 10, 2003 and identify all processing equipment that is part of this MCPU, based on descriptions in operating scenarios.

(ii) Add to the group any other nondedicated MCPU and other nondedicated process units expected to be operated in the 5 years after the date specified in paragraph (l)(1)(i) of this section, provided they satisfy the criteria specified in paragraphs (l)(1)(ii)(A) through (C) of this section. Also identify all of the processing equipment used for each process unit based on information from operating scenarios and other applicable documentation.

(A) Each process unit that is added to a group must have some processing equipment that is also part of one or more process units in the group.

(B) No process unit may be part of more than one PUG.

(C) The processing equipment used to satisfy the requirement of paragraph (l)(1)(ii)(A) of this section may not be a storage tank or control device.

(iii) The initial PUG consists of all of the processing equipment for the process units identified in paragraphs (l)(1)(i) and (ii) of this section. As an alternative to the procedures specified in paragraphs (l)(1)(i) and (ii) of this section, you may use a PUG that was developed in accordance with § 63.1360(h) as your initial PUG.

(iv) Add process units developed in the future in accordance with the conditions specified in paragraphs (l)(1)(ii)(A) and (B) of this section.

(v) Maintain records that describe the process units in the initial PUG, the procedure used to create the PUG, and subsequent changes to each PUG as specified in § 63.2525(i). Submit the records in reports as specified in § 63.2520(d)(2)(ix) and (e)(8).

(2) *Determine primary product.* You must determine the primary product of each PUG created in paragraph (l)(1) of this section according to the procedures specified in paragraphs (l)(2)(i) through (iv) of this section.

(i) The primary product is the type of product (*e.g.*, organic chemicals subject to § 63.2435(b)(1), pharmaceutical products subject to § 63.1250, or pesticide active ingredients subject to § 63.1360) expected to be produced for the greatest operating time in the 5-year period specified in paragraph (l)(1)(ii) of this section.

(ii) If the PUG produces multiple types of products equally based on operating time, then the primary product is the type of product with the greatest production on a mass basis over the 5-year period specified in paragraph (l)(1)(ii) of this section.

(iii) At a minimum, you must redetermine the primary product of the PUG following the procedure specified in paragraphs (l)(2)(i) and (ii) of this section every 5 years.

(iv) You must record the calculation of the initial primary product determination as specified in § 63.2525(i)(3) and report the results in the notification of compliance status report as specified in § 63.2520(d)(8)(ix). You must record the calculation of each redetermination of the primary product as specified in § 63.2525(i)(5) and report the calculation in a compliance report submitted no later than the report covering the period for the end of the 5th year after cessation of production of the previous primary product, as specified in § 63.2520(e)(8).

(3) *Compliance requirements.* (i) If the primary product of the PUG is determined according to paragraph (l)(2) of this section to be material described in § 63.2435(b)(1), then you must comply with this subpart for each MCPU in the PUG. You may also elect to comply with this subpart for all other process units in the PUG, which constitutes compliance with other part 63 rules.

(ii) If the primary product of the PUG is determined according to paragraph (l)(2) of this section to be material not described in § 63.2435(b)(1), then you must comply with paragraph (l)(3)(ii)(A), (B), or (C) of this section, as applicable.

(A) If the primary product is subject to subpart GGG of this part 63, then comply with the requirements of subpart GGG for each MCPU in the PUG.

(B) If the primary product is subject to subpart MMM of this part 63, then comply with the requirements of subpart MMM for each MCPU in the PUG.

(C) If the primary product is subject to any subpart in this part 63 other than subpart GGG or subpart MMM, then comply with the requirements of this subpart for each MCPU in the PUG.

(iii) The requirements for new and reconstructed sources in the alternative subpart apply to all MCPU in the PUG if and only if the affected source under the alternative subpart meets the requirements for construction or reconstruction.

§ 63.2540 What parts of the General Provisions apply to me?

Table 12 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

§ 63.2545 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (U.S. EPA), or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency also has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraphs (b)(1) through (4) of this section are retained by the Administrator of U.S. EPA and are not delegated to the State, local, or tribal agency.

(1) Approval of alternatives to the non-opacity emission limits and work practice standards in § 63.2450(a) under § 63.6(g).

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.2550 What definitions apply to this subpart?

(a) For an affected source complying with the requirements in subpart SS of this part 63, the terms used in this subpart and in subpart SS of this part 63 have the meaning given them in § 63.981, except as specified in §§ 63.2450(k)(2) and (m), 63.2470(c)(2), 63.2475(b), and paragraph (i) of this section.

(b) For an affected source complying with the requirements in subpart TT of this part 63, the terms used in this subpart and in subpart TT of this part 63 have the meaning given them in § 63.1001.

(c) For an affected source complying with the requirements in subpart UU of this part 63, the terms used in this subpart and in subpart UU of this part 63 have the meaning given them in § 63.1020.

(d) For an affected source complying with the requirements in subpart WW of this part 63, the terms used in this subpart and subpart WW of this part 63 have the meaning given them in § 63.1061, except as specified in §§ 63.2450(m), 63.2470(c)(2), and paragraph (i) of this section.

(e) For an affected source complying with the requirements in §§ 63.132 through 63.149, the terms used in this subpart and §§ 63.132 through 63.149 have the meaning given them in §§ 63.101 and 63.111, except as specified in § 63.2450(m) and paragraph (i) of this section.

(f) For an affected source complying with the requirements in §§ 63.104 and 63.105, the terms used in this subpart and in §§ 63.104 and 63.105 of this subpart have the meaning given them in § 63.101, except as specified in §§ 63.2450(m), 63.2490(b), and paragraph (i) of this section.

(g) For an affected source complying with requirements in §§ 63.1253, 63.1257, and 63.1258, the terms used in this subpart and in §§ 63.1253, 63.1257, and 63.1258 have the meaning given them in § 63.1251, except as specified in § 63.2450(m) and paragraph (i) of this section.

(h) For an affected source complying with the requirements in 40 CFR part 65, subpart F, the terms used in this subpart and in 40 CFR part 65, subpart

F, have the meaning given them in 40 CFR 65.2.

(i) All other terms used in this subpart are defined in the Clean Air Act (CAA), in 40 CFR 63.2, and in this paragraph (i). If a term is defined in § 63.2, § 63.101, § 63.111, § 63.981, § 63.1001, § 63.1020, § 63.1061, § 63.1251, or § 65.2 and in this paragraph (i), the definition in this paragraph (i) applies for the purposes of this subpart.

Ancillary activities means boilers and incinerators (not used to comply with the emission limits in Tables 1 through 7 to this subpart), chillers and refrigeration systems, and other equipment and activities that are not directly involved (*i.e.*, they operate within a closed system and materials are not combined with process fluids) in the processing of raw materials or the manufacturing of a product or isolated intermediate.

Batch operation means a noncontinuous operation involving intermittent or discontinuous feed into equipment, and, in general, involves the emptying of the equipment after the operation ceases and prior to beginning a new operation. Addition of raw material and withdrawal of product do not occur simultaneously in a batch operation.

Batch process vent means a vent from a unit operation or vents from multiple unit operations within a process that are manifolded together into a common header, through which a HAP-containing gas stream is, or has the potential to be, released to the atmosphere. Examples of batch process vents include, but are not limited to, vents on condensers used for product recovery, reactors, filters, centrifuges, and process tanks. The following are not batch process vents for the purposes of this subpart:

(1) Continuous process vents;

(2) Bottoms receivers;

(3) Surge control vessels;

(4) Gaseous streams routed to a fuel gas system(s);

(5) Vents on storage tanks, wastewater emission sources, or pieces of equipment subject to the emission limits and work practice standards in Tables 4, 6, and 7 to this subpart;

(6) Drums, pails, and totes;

(7) Flexible elephant trunk systems that draw ambient air (*i.e.*, the system is not ducted, piped, or otherwise connected to the unit operations) away from operators when vessels are opened; and

(8) Emission streams from emission episodes that are undiluted and uncontrolled containing less than 50 ppmv HAP or less than 200 lb/yr. The HAP concentration or mass emission rate may be determined using any of the following: process knowledge that no HAP are present in the emission stream; an engineering assessment as discussed in § 63.1257(d)(2)(ii); equations specified in § 63.1257(d)(2)(i), as applicable; test data using Methods 18 of 40 CFR part 60, appendix A; or any other test method that has been validated according to the procedures in Method 301 of appendix A of this part 63.

Bottoms receiver means a tank that collects bottoms from continuous distillation before the stream is sent for storage or for further downstream processing.

Construction means the onsite fabrication, erection, or installation of an affected source or MCPU. Addition of new equipment to an MCPU subject to existing source standards does not constitute construction, but it may constitute reconstruction of the affected source or MCPU if it satisfies the definition of reconstruction in § 63.2.

Consumption means the quantity of all HAP raw materials entering a process in excess of the theoretical amount used as reactant, assuming 100 percent stoichiometric conversion. The raw materials include reactants, solvents, and any other additives. If a HAP is generated in the process as well as added as a raw material, consumption includes the quantity generated in the process.

Continuous process vent means the point of discharge to the atmosphere (or the point of entry into a control device, if any) of a gas stream if the gas stream has the characteristics specified in § 63.107(b) through (h), or meets the criteria specified in § 63.107(i), except:

(1) The reference in § 63.107(e) to a chemical manufacturing process unit that meets the criteria of § 63.100(b) means an MCPU that meets the criteria of § 63.2435(b);

(2) The reference in § 63.107(h)(4) to § 63.113 means Table 1 to this subpart;

(3) The references in § 63.107(h)(7) to §§ 63.119 and 63.126 mean Tables 4 and 5 to this subpart; and

(4) For the purposes of § 63.2455, all references to the characteristics of a process vent (*e.g.*, flowrate, total HAP concentration, or TRE index value) mean the characteristics of the gas stream.

Dedicated MCPU means an MCPU that consists of equipment that is used exclusively for one process, except that storage tanks assigned to the process according to the procedures in § 63.2435(d) also may be shared by other processes.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard; or

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limit, operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Energetics means propellants, explosives, and pyrotechnics and include materials listed at 49 CFR 172.101 as Hazard Class I Hazardous Materials, Divisions 1.1 through 1.6.

Equipment means each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system in organic HAP service; and any control devices or systems used to comply with Table 6 to this subpart.

Excess emissions means emissions greater than those allowed by the emission limit.

Family of materials means a grouping of materials with the same basic composition or the same basic end use or functionality produced using the same basic feedstocks with essentially identical HAP emission profiles (primary constituent and relative magnitude on a pound per product basis) and manufacturing equipment configuration. Examples of families of materials include multiple grades of the same product or different variations of a product (*e.g.*, blue, black, and red resins).

Group 1 batch process vent means each of the batch process vents in a process for which the collective uncontrolled organic HAP emissions from all of the batch process vents are greater than or equal to 10,000 lb/yr at an existing source or greater than or equal to 3,000 lb/yr at a new source.

Group 2 batch process vent means each batch process vent that does not meet the definition of Group 1 batch process vent.

Group 1 continuous process vent means a continuous process vent with a total resource effectiveness index value, calculated according to § 63.2455(b), that is less than 1.9 at an existing source and less than 5.0 at a new source.

Group 2 continuous process vent means a continuous process vent that

does not meet the definition of a Group 1 continuous process vent.

Group 1 storage tank means a storage tank with a capacity greater than or equal to 10,000 gal storing material that has a maximum true vapor pressure of total HAP greater than or equal to 6.9 kilopascals at an existing source or greater than or equal to 0.69 kilopascals at a new source.

Group 2 storage tank means a storage tank that does not meet the definition of a Group 1 storage tank.

Group 1 transfer rack means a transfer rack that loads more than 0.65 million liters/year of liquids that contain organic HAP with a rack-weighted average partial pressure, as defined in § 63.111, greater than or equal to 1.5 pound per square inch absolute.

Group 2 transfer rack means a transfer rack that does not meet the definition of a Group 1 transfer rack.

Group 1 wastewater stream means a wastewater stream consisting of process wastewater at an existing or new source that meets the criteria for Group 1 status in § 63.2485(c) for compounds in Tables 8 and 9 to this subpart and/or a wastewater stream consisting of process wastewater at a new source that meets the criteria for Group 1 status in § 63.132(d) for compounds in Table 8 to subpart G of this part 63.

Group 2 wastewater stream means any process wastewater stream that does not meet the definition of a Group 1 wastewater stream.

Halogenated vent stream means a vent stream determined to have a mass emission rate of halogen atoms contained in organic compounds of 0.45 kilograms per hour or greater determined by the procedures presented in § 63.115(d)(2)(v).

Hydrogen halide and halogen HAP means hydrogen chloride, hydrogen fluoride, and chlorine.

In organic HAP service means that a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 5 percent by weight of total organic HAP as determined according to the provisions of § 63.180(d). The provisions of § 63.180(d) also specify how to determine that a piece of equipment is not in organic HAP service.

Isolated intermediate means a product of a process that is stored before subsequent processing. An isolated intermediate is usually a product of a chemical synthesis, fermentation, or biological extraction process. Storage of an isolated intermediate marks the end of a process. Storage occurs at any time the intermediate is placed in equipment used solely for storage.

Large control device means a control device that controls total HAP emissions of greater than or equal to 10 tpy, before control.

Maintenance wastewater means wastewater generated by the draining of process fluid from components in the MCPU into an individual drain system in preparation for or during maintenance activities. Maintenance wastewater can be generated during planned and unplanned shutdowns and during periods not associated with a shutdown. Examples of activities that can generate maintenance wastewater include descaling of heat exchanger tubing bundles, cleaning of distillation column traps, draining of pumps into an individual drain system, and draining of portions of the MCPU for repair. Wastewater from routine cleaning operations occurring as part of batch operations is not considered maintenance wastewater.

Maximum true vapor pressure has the meaning given in § 63.111, except that it applies to all HAP rather than only organic HAP.

Miscellaneous organic chemical manufacturing process means all equipment which collectively function to produce a product or isolated intermediate that are materials described in § 63.2435(b). For the purposes of this subpart, process includes any, all or a combination of reaction, recovery, separation, purification, or other activity, operation, manufacture, or treatment which are used to produce a product or isolated intermediate. A process is also defined by the following:

(1) Routine cleaning operations conducted as part of batch operations are considered part of the process;

(2) Each nondedicated solvent recovery operation is considered a single process;

(3) Each nondedicated formulation operation is considered a single process that is used to formulate numerous materials and/or products;

(4) Quality assurance/quality control laboratories are not considered part of any process; and

(5) Ancillary activities are not considered a process or part of any process.

Nondedicated solvent recovery operation means a distillation unit or other purification equipment that receives used solvent from more than one MCPU.

Nonstandard batch means a batch process that is operated outside of the range of operating conditions that are documented in an existing operating scenario but is still a reasonably anticipated event. For example, a nonstandard batch occurs when additional processing or processing at different operating conditions must be conducted to produce a product that is normally produced under the conditions described by the standard batch. A nonstandard batch may be necessary as a result of a malfunction, but it is not itself a malfunction.

On-site or on site means, with respect to records required to be maintained by this subpart or required by another subpart referenced by this subpart, that records are stored at a location within a major source which encompasses the affected source. On-site includes, but is not limited to, storage at the affected source or MCPU to which the records pertain, or storage in central files elsewhere at the major source.

Operating scenario means, for the purposes of reporting and recordkeeping, any specific operation of an MCPU as described by records specified in § 63.2525(b).

Organic group means structures that contain primarily carbon, hydrogen, and oxygen atoms.

Organic peroxides means organic compounds containing the bivalent -o-o- structure which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

Predominant HAP means as used in calibrating an analyzer, the single organic HAP that constitutes the largest percentage of the total organic HAP in the analyzed gas stream, by volume.

Process tank means a tank or vessel that is used within a process to collect material discharged from a feedstock storage tank or equipment within the process before the material is transferred to other equipment within the process or a product storage tank. A process tank has emissions that are related to the characteristics of the batch cycle, and it does not accumulate product over multiple batches. Surge control vessels and bottoms receivers are not process tanks.

Production-indexed HAP consumption factor (HAP factor) means the result of dividing the annual consumption of total HAP by the annual production rate, per process.

Production-indexed VOC consumption factor (VOC factor) means the result of dividing the annual consumption of total VOC by the annual production rate, per process.

Quaternary ammonium compounds means a type of organic nitrogen compound in which the molecular structure includes a central nitrogen atom joined to four organic groups as well as an acid radical of some sort.

Recovery device means an individual unit of equipment used for the purpose of recovering chemicals from process vent streams for reuse in a process at the affected source and from wastewater streams for fuel value (*i.e.*, net positive heating value), use, reuse, or for sale for fuel value, use or reuse. Examples of equipment that may be recovery devices include absorbers, carbon adsorbers, condensers, oil-water separators or organic-water separators, or organic removal devices such as decanters, strippers, or thin-film evaporation units. To be a recovery device for a wastewater stream, a decanter and any other equipment based on the operating principle of gravity separation must receive only multi-phase liquid streams.

Responsible official means responsible official as defined in 40 CFR 70.2.

Safety device means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purposes of this subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the air emission control equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials.

Shutdown means the cessation of operation of a continuous operation for any purpose. Shutdown also means the cessation of a batch operation, or any related individual piece of equipment required or used to comply with this subpart, if the steps taken to cease operation differ from those described in a standard batch or nonstandard batch. Shutdown also applies to emptying and degassing storage vessels. Shutdown does not apply to cessation of batch operations at the end of a campaign or between batches within a campaign when the steps taken are routine operations.

Small control device means a control device that controls total HAP emissions of less than 10 tpy, before control.

Standard batch means a batch process operated within a range of operating conditions that are documented in an operating scenario. Emissions from a standard batch are based on the operating conditions that result in highest emissions. The standard batch defines the uncontrolled and controlled emissions for each emission episode defined under the operating scenario.

Startup means the setting in operation of a continuous operation for any purpose; the first time a new or reconstructed batch operation begins production; for new equipment added, including equipment required or used to comply with this subpart, the first time the equipment is put into operation; or for the introduction of a new product/process, the first time the product or process is run in equipment. For batch operations, startup applies to the first time the equipment is put into operation at the start of a campaign to produce a product that has been produced in the past if the steps taken to begin production differ from those specified in a standard batch or nonstandard batch. Startup does not apply when the equipment is put into operation as part of a batch within a campaign when the steps taken are routine operations.

Storage tank means a tank or other vessel that is used to store liquids that contain organic HAP and/or hydrogen halide and halogen HAP and that has been assigned to an MCPU according to the procedures in § 63.2435(d). The following are not considered storage tanks for the purposes of this subpart:

(1) Vessels permanently attached to motor vehicles such as trucks, railcars, barges, or ships;

(2) Pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere;

(3) Vessels storing organic liquids that contain HAP only as impurities;

(4) Wastewater storage tanks;

(5) Bottoms receivers;

(6) Surge control vessels; and

(7) Process tanks.

Supplemental gases are any gaseous streams that are not defined as process vents, or closed-vent systems from wastewater management and treatment units, storage tanks, or equipment components and that contain less than 50 ppmv TOC, as determined through process knowledge, that are introduced into vent streams or manifolds. Air required to operate combustion device burner(s) is not considered supplemental gas.

Surge control vessel means feed drums, recycle drums, and intermediate vessels immediately preceding continuous reactors, air-oxidation reactors, or distillation operations. Surge control vessels are used within an MCPU when in-process storage, mixing, or management of flowrates or volumes is needed to introduce material into continuous reactors, air-oxidation reactors, or distillation operations.

Total organic compounds or (TOC) means the total gaseous organic compounds (minus methane and ethane) in a vent stream.

Transfer rack means the collection of loading arms and loading hoses, at a single loading rack, that are assigned to an MCPU according to the procedures specified in § 63.2435(d) and are used to fill tank trucks and/or rail cars with organic liquids that contain one or more of the organic HAP listed in section 112(b) of the CAA of this subpart. Transfer rack includes the associated pumps, meters, shutoff valves, relief valves, and other piping and valves.

Unit operation means those processing steps that occur within distinct equipment that are used, among other things, to prepare reactants, facilitate reactions, separate and purify products, and recycle materials. Equipment used for these purposes includes, but is not limited to, reactors, distillation columns, extraction columns, absorbers, decanters, dryers, condensers, and filtration equipment.

Waste management unit means the equipment, structure(s), and/or device(s) used to convey, store, treat, or dispose of wastewater streams or residuals. Examples of waste management units include wastewater tanks, air flotation units, surface impoundments, containers, oil-water or organic-water separators, individual drain systems, biological wastewater treatment units, waste incinerators, and organic removal devices such as steam and air stripper units, and thin film evaporation units. If such equipment is being operated as a recovery device, then it is part of a miscellaneous organic chemical manufacturing process and is not a waste management unit.

Wastewater means water that is discarded from an MCPU through a single POD and that contains either: an annual average concentration of compounds in Table 8 or 9 to this subpart of at least 5 ppmw and has an annual average flowrate of 0.02 liters per minute or greater; or an annual average concentration of compounds in Table 8 or 9 to this subpart of at least 10,000 ppmw at any flowrate. The

following are not considered wastewater for the purposes of this subpart:

(1) Stormwater from segregated sewers;

(2) Water from fire-fighting and deluge systems, including testing of such systems;

(3) Spills;

(4) Water from safety showers;

(5) Samples of a size not greater than reasonably necessary for the method of analysis that is used;

(6) Equipment leaks;

(7) Wastewater drips from procedures such as disconnecting hoses after cleaning lines; and

(8) Noncontact cooling water.

Wastewater stream means a stream that contains only wastewater as defined in this paragraph (h).

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

Tables to Subpart FFFF of Part 63

As required in § 63.2455, you must meet each emission limit and work practice standard in the following table that applies to your continuous process vents:

TABLE 1 TO SUBPART FFFF OF PART 63.—EMISSION LIMITS AND WORK PRACTICE STANDARDS FOR CONTINUOUS PROCESS VENTS

For each . . .	For which . . .	Then you must . . .
1. Group 1 continuous process vent.	a. Not applicable	i. Reduce emissions of total organic HAP by ≥98 percent by weight or to an outlet process concentration ≤20 ppmv as organic HAP or TOC by venting emissions through a closed-vent system to any combination of control devices (except a flare); or ii. Reduce emissions of total organic HAP by venting emissions through a closed vent system to a flare; or iii. Use a recovery device to maintain the TRE above 1.9 for an existing source or above 5.0 for a new source.
2. Halogenated Group 1 continuous process vent stream.	a. You use a combustion control device to control organic HAP emissions.	i. Use a halogen reduction device after the combustion device to reduce emissions of hydrogen halide and halogen HAP by ≥99 percent by weight, or to ≤0.45 kg/hr, or to ≤20 ppmv; or ii. Use a halogen reduction device before the combustion device to reduce the halogen atom mass emission rate to ≤0.45 kg/hr or to a concentration ≤20 ppmv.
3. Group 2 continuous process vent at an existing source.	You use a recovery device to maintain the TRE level >1.9 but ≤5.0.	Comply with the requirements in § 63.993 and the requirements referenced therein.
4. Group 2 continuous process vent at a new source.	You use a recovery device to maintain the TRE level >5.0 but ≤8.0.	Comply with the requirements in § 63.993 and the requirements referenced therein.

As required in § 63.2460, you must meet each emission limit and work practice standard in the following table that applies to your batch process vents:

TABLE 2 TO SUBPART FFFF OF PART 63. EMISSION LIMITS AND WORK PRACTICE STANDARDS FOR BATCH PROCESS VENTS

For each . . .	Then you must . . .	And you must . . .
1. Process with Group 1 batch process vents.	a. Reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by ≥98 percent by weight by venting emissions from a sufficient number of the vents through a closed-vent system to any combination of control devices (except a flare); or	Not applicable.
	b. Reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by ≥95 percent by weight by venting emissions from a sufficient number of the vents through a closed-vent system to any combination of recovery devices; or	Not applicable.
	c. For all batch process vents within the process that are not controlled by venting through a closed-vent system to a flare or to any other combination of control devices that reduce total organic HAP to an outlet concentration ≤20 ppmv as TOC or total organic HAP, reduce organic HAP emissions by venting emissions from a sufficient number of the vents through a closed-vent system to any combination of recovery devices that reduce collective emissions by ≥95 percent by weight and/or any combination of control devices that reduce collective emissions by ≥98 percent by weight.	Not applicable.

TABLE 2 TO SUBPART FFFF OF PART 63. EMISSION LIMITS AND WORK PRACTICE STANDARDS FOR BATCH PROCESS VENTS—Continued

For each . . .	Then you must . . .	And you must . . .
2. Halogenated Group 1 batch process vent for which you use a combustion device to control organic HAP emissions.	a. Use a halogen reduction device after the combustion control device; or	i. Reduce overall emissions of hydrogen halide and halogen HAP by ≥99 percent; or ii. Reduce overall emissions of hydrogen halide and halogen HAP to ≤0.45 kg/hr; or iii. Reduce overall emissions of hydrogen halide and halogen HAP to a concentration ≤20 ppmv.
	b. Use a halogen reduction device before the combustion control device.	Reduce the halogen atom mass emission rate to ≤0.45 kg/hr or to a concentration ≤20 ppmv.

As required in § 63.2465, you must meet each emission limit in the following table that applies to your process vents that contain hydrogen halide and halogen HAP emissions or PM HAP emissions:

TABLE 3 TO SUBPART FFFF OF PART 63.—EMISSION LIMITS FOR HYDROGEN HALIDE AND HALOGEN HAP EMISSIONS OR PM HAP EMISSIONS FROM PROCESS VENTS

For each . . .	You must . . .
1. Process with uncontrolled hydrogen halide and halogen HAP emissions from process vents ≥1,000 lb/yr.	Reduce collective hydrogen halide and halogen HAP emissions by ≥99 percent by weight or to an outlet concentration <20 ppmv by venting through a closed-vent system to any combination of control devices.
2. Process at a new source with uncontrolled PM HAP emissions from process vents ≥400 lb/yr.	Reduce overall PM HAP emissions by ≥97 percent by weight.

As required in § 63.2470, you must meet each emission limit in the following table that applies to your storage tanks:

TABLE 4 TO SUBPART FFFF OF PART 63.—EMISSION LIMITS FOR STORAGE TANKS

For each . . .	For which . . .	Then you must . . .
1. Group 1 storage tank	a. The maximum true vapor pressure of total HAP at the storage temperature is ≥76.6 kilopascals.	i. Reduce total HAP emissions by ≥95 percent by weight or to ≤20 ppmv of TOC or organic HAP and ≤20 ppmv of hydrogen halide and halogen HAP by venting emissions through a closed vent system to any combination of control devices (excluding a flare); or ii. Reduce total organic HAP emissions by venting emissions through a closed vent system to a flare; or iii. Reduce total HAP emissions by venting emissions to a fuel gas system or process.
	b. The maximum true vapor pressure of total HAP at the storage temperature is ≤76.6 kilopascals.	i. Comply with the requirements of subpart WW of this part, except as specified in § 63.2470; or ii. Reduce total HAP emissions by ≥95 percent by weight or to <20 ppmv of TOC or organic HAP and <20 ppmv of hydrogen halide and halogen HAP by venting emissions through a closed vent system to any combination of control devices (excluding a flare); or iii. Reduce total organic HAP emissions by venting emissions through a closed vent system to a flare; or iv. Reduce total HAP emissions by venting emissions to a fuel gas system or process.
2. Halogenated vent stream from a Group 1 storage tank.	You use a combustion control device to control organic HAP emissions.	Meet one of the emission limit options specified in Item 2.a.i or ii. in Table 1 to this subpart.

As required in § 63.2475, you must meet each emission limit and work practice standard in the following table that applies to your transfer racks:

TABLE 5 TO SUBPART FFFF OF PART 63.—EMISSION LIMITS AND WORK PRACTICE STANDARDS FOR TRANSFER RACKS

For each . . .	You must . . .
1. Group 1 transfer rack	a. Reduce emissions of total organic HAP by ≥98 percent by weight or to an outlet concentration ≤20 ppmv as organic HAP or TOC by venting emissions through a closed-vent system to any combination of control devices (except a flare); or

TABLE 5 TO SUBPART FFFF OF PART 63.—EMISSION LIMITS AND WORK PRACTICE STANDARDS FOR TRANSFER RACKS—Continued

For each . . .	You must . . .
	b. Reduce emissions of total organic HAP by venting emissions through a closed-vent system to a flare; or c. Reduce emissions of total organic HAP by venting emissions to a fuel gas system or process; or d. Use a vapor balancing system designed and operated to collect organic HAP vapors displaced from tank trucks and railcars during loading and route the collected HAP vapors to the storage tank from which the liquid being loaded originated or to another storage tank connected by a common header.
2. Halogenated Group 1 transfer rack vent stream for which you use a combustion device to control organic HAP emissions.	a. Use a halogen reduction device after the combustion device to reduce emissions of hydrogen halide and halogen HAP by ≥99 percent by weight, to ≤0.45 kg/hr, or to ≤20 ppmv; or b. Use a halogen reduction device before the combustion device to reduce the halogen atom mass emission rate to ≤0.45 kg/hr or to a concentration ≤20 ppmv.

As required in § 63.2480, you must meet each requirement in the following table that applies to your equipment leaks:

TABLE 6 TO SUBPART FFFF OF PART 63.—REQUIREMENTS FOR EQUIPMENT LEAKS

For all . . .	And that is part of . . .	You must . . .
1. Equipment that is in organic HAP service at an existing source.	a. An MCPU with no continuous process vents.	i. Comply with the requirements of subpart TT of this part 63 and the requirements referenced therein; or ii. Comply with the requirements of subpart UU of this part 63 and the requirements referenced therein; or iii. Comply with the requirements of 40 CFR part 65, subpart F.
	b. An MCPU with at least one continuous process vent.	i. Comply with the requirements of subpart UU of this part 63 and the requirements referenced therein; or ii. Comply with the requirements of 40 CFR part 65, subpart F.
2. Equipment that is in organic HAP service at a new source.	a. Any MCPU	i. Comply with the requirements of subpart UU of this part 63 and the requirements referenced therein; or ii. Comply with the requirements of 40 CFR part 65, subpart F.

As required in § 63.2485, you must meet each requirement in the following table that applies to your wastewater streams and liquid streams in open systems within an MCPU:

TABLE 7 TO SUBPART FFFF OF PART 63.—REQUIREMENTS FOR WASTEWATER STREAMS AND LIQUID STREAMS IN OPEN SYSTEMS WITHIN AN MCPU

For each . . .	You must . . .
1. Process wastewater stream	Comply with the requirements in §§ 63.132 through 63.148 and the requirements referenced therein, except as specified in § 63.2485.
2. Maintenance wastewater stream	Comply with the requirements in § 63.105 and the requirements referenced therein, except as specified in § 63.2485.
3. Liquid streams in an open system within an MCPU.	Comply with the requirements in § 63.149 and the requirements referenced therein, except as specified in § 63.2485.

As specified in § 63.2485, the partially soluble HAP in wastewater that are subject to management and treatment requirements in this subpart FFFF are listed in the following table:

TABLE 8 TO SUBPART FFFF OF PART 63.—PARTIALLY SOLUBLE HAZARDOUS AIR POLLUTANTS

Chemical name . . .	CAS No.
1. 1,1,1–Trichloroethane (methyl chloroform)	71556
2. 1,1,2,2–Tetrachloroethane	79345
3. 1,1,2–Trichloroethane	79005
4. 1,1–Dichloroethylene (vinylidene chloride)	75354
5. 1,2–Dibromoethane	106934
6. 1,2–Dichloroethane (ethylene dichloride)	107062
7. 1,2–Dichloropropane	78875
8. 1,3–Dichloropropene	542756
9. 2,4,5–Trichlorophenol	95954
10. 2–Butanone (MEK)	78933
11. 1,4–Dichlorobenzene	106467

TABLE 8 TO SUBPART FFFF OF PART 63.—PARTIALLY SOLUBLE HAZARDOUS AIR POLLUTANTS—Continued

Chemical name . . .	CAS No.
12. 2–Nitropropane	79469
13. 4–Methyl-2-pentanone (MIBK)	108101
14. Acetaldehyde	75070
15. Acrolein	107028
16. Acrylonitrile	107131
17. Allyl chloride	107051
18. Benzene	71432
19. Benzyl chloride	100447
20. Biphenyl	92524
21. Bromoform (tribromomethane)	75252
22. Bromomethane	74839
23. Butadiene	106990
24. Carbon disulfide	75150
25. Chlorobenzene	108907
26. Chloroethane (ethyl chloride)	75003
27. Chloroform	67663
28. Chloromethane	74873
29. Chloroprene	126998
30. Cumene	98828
31. Dichloroethyl ether	111444
32. Dinitrophenol	51285
33. Epichlorohydrin	106898
34. Ethyl acrylate	140885
35. Ethylbenzene	100414
36. Ethylene oxide	75218
37. Ethylidene dichloride	75343
38. Hexachlorobenzene	118741
39. Hexachlorobutadiene	87683
40. Hexachloroethane	67721
41. Methyl methacrylate	80626
42. Methyl-t-butyl ether	1634044
43. Methylene chloride	75092
44. N-hexane	110543
45. N,N-dimethylaniline	121697
46. Naphthalene	91203
47. Phosgene	75445
48. Propionaldehyde	123386
49. Propylene oxide	75569
50. Styrene	100425
51. Tetrachloroethylene (perchloroethylene)	79345
52. Tetrachloromethane (carbon tetrachloride)	56235
53. Toluene	108883
54. Trichlorobenzene (1,2,4-)	120821
55. Trichloroethylene	79016
56. Trimethylpentane	540841
57. Vinyl acetate	108054
58. Vinyl chloride	75014
59. Xylene (m)	108383
60. Xylene (o)	95476
61. Xylene (p)	106423

As specified in § 63.2485, the soluble HAP in wastewater that are subject to management and treatment requirements of this subpart FFFF are listed in the following table:

TABLE 9 TO SUBPART FFFF OF PART 63.—SOLUBLE HAZARDOUS AIR POLLUTANTS

Chemical name . . .	CAS No.
1. Acetonitrile	75058
2. Acetophenone	98862
3. Diethyl sulfate	64675
4. Dimethyl hydrazine (1,1)	58147
5. Dimethyl sulfate	77781
6. Dinitrotoluene (2,4)	121142
7. Dioxane (1,4)	123911
8. Ethylene glycol dimethyl ether	
9. Ethylene glycol monobutyl ether acetate	
10. Ethylene glycol monomethyl ether acetate	

TABLE 9 TO SUBPART FFFF OF PART 63.—SOLUBLE HAZARDOUS AIR POLLUTANTS—Continued

Chemical name . . .	CAS No.
11. Isophorone	78591
12. Methanol	67561
13. Nitrobenzene	98953
14. Toluidine (o-)	95534
15. Triethylamine	121448

As required in § 63.2490, you must meet each requirement in the following table that applies to your heat exchange systems:

TABLE 10 TO SUBPART FFFF OF PART 63.—WORK PRACTICE STANDARDS FOR HEAT EXCHANGE SYSTEMS

For each . . .	You must . . .
Heat exchange system, as defined in § 63.101	Comply with the requirements of § 63.104 and the requirements referenced therein, except as specified in § 63.2490.

As required in § 63.2520(a) and (b), you must submit each report that applies to you on the schedule shown in the following table:

TABLE 11 TO SUBPART FFFF OF PART 63.—REQUIREMENTS FOR REPORTS

You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Precompliance report	The information specified in § 63.2520(c).	At least 6 months prior to the compliance date; or for new sources, with the application for approval of construction or reconstruction.
2. Notification of compliance status report.	The information specified in § 63.2520(d).	No later than 150 days after the compliance date specified in § 63.2445.
3. Compliance report	The information specified in § 63.2520(e).	Semiannually according to the requirements in § 63.2520(b).

As specified in § 63.2540, the parts of the General Provisions that apply to you are shown in the following table:

TABLE 12 TO SUBPART FFFF OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART FFFF

Citation	Subject	Explanation
§ 63.1	Applicability	Yes.
§ 63.2	Definitions	Yes.
§ 63.3	Units and Abbreviations	Yes.
§ 63.4	Prohibited Activities	Yes.
§ 63.5	Construction/Reconstruction	Yes.
§ 63.6(a)	Applicability	Yes.
§ 63.6(b)(1)–(4)	Compliance Dates for New and Reconstructed sources.	Yes.
§ 63.6(b)(5)	Notification	Yes.
§ 63.6(b)(6)	[Reserved].	
§ 63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major.	Yes.
§ 63.6(c)(1)–(2)	Compliance Dates for Existing Sources	Yes.
§ 63.6(c)(3)–(4)	[Reserved].	
§ 63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major.	Yes
§ 63.6(d)	[Reserved].	
§ 63.6(e)(1)–(2)	Operation & Maintenance	Yes.
§ 63.6(e)(3)(i), (ii), and (v) through (viii).	Startup, Shutdown, Malfunction Plan (SSMP)	Yes, except information regarding Group 2 emission points and equipment leaks is not required in the SSMP, as specified in § 63.2525(j).
§ 63.6(e)(3)(iii) and (iv)	Recordkeeping and Reporting During SSM	No, § 63.998(d)(3) and 63.998(c)(1)(ii)(D) through (G) specify the recordkeeping requirement for SSM events, and § 63.2520(e)(4) specifies reporting requirements.
§ 63.6(f)(1)	Compliance Except During SSM	Yes.
§ 63.6(f)(2)–(3)	Methods for Determining Compliance	Yes.
§ 63.6(g)(1)–(3)	Alternative Standard	Yes.

TABLE 12 TO SUBPART FFFF OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART FFFF—Continued

Citation	Subject	Explanation
§ 63.6(h)	Opacity/Visible Emission (VE) Standards	Only for flares for which Method 22 observations are required as part of a flare compliance assessment.
§ 63.6(i)(1)–(14)	Compliance Extension	Yes.
§ 63.6(j)	Presidential Compliance Exemption	Yes.
§ 63.7(a)(1)–(2)	Performance Test Dates	Yes, except substitute 150 days for 180 days.
§ 63.7(a)(3)	Section 114 Authority	Yes, and this paragraph also applies to flare compliance assessments as specified under § 63.997(b)(2).
§ 63.7(b)(1)	Notification of Performance Test	Yes.
§ 63.7(b)(2)	Notification of Rescheduling	Yes.
§ 63.7(c)	Quality Assurance/Test Plan	Yes, except the test plan must be submitted with the notification of the performance test if the control device controls batch process vents.
§ 63.7(d)	Testing Facilities	Yes.
§ 63.7(e)(1)	Conditions for Conducting Performance Tests	Yes, except that performance tests for batch process vents must be conducted under worst-case conditions as specified in § 63.2460.
§ 63.7(e)(2)	Conditions for Conducting Performance Tests	Yes.
§ 63.7(e)(3)	Test Run Duration	Yes.
§ 63.7(f)	Alternative Test Method	Yes.
§ 63.7(g)	Performance Test Data Analysis	Yes.
§ 63.7(h)	Waiver of Tests	Yes.
§ 63.8(a)(1)	Applicability of Monitoring Requirements	Yes.
§ 63.8(a)(2)	Performance Specifications	Yes.
§ 63.8(a)(3)	[Reserved].	
§ 63.8(a)(4)	Monitoring with Flares	Yes.
§ 63.8(b)(1)	Monitoring	Yes.
§ 63.8(b)(2)–(3)	Multiple Effluents and Multiple Monitoring Systems	Yes.
§ 63.8(c)(1)	Monitoring System Operation and Maintenance	Yes.
§ 63.8(c)(1)(i)	Routine and Predictable SSM	Yes.
§ 63.8(c)(1)(ii)	SSM not in SSMP	Yes.
§ 63.8(c)(1)(iii)	Compliance with Operation and Maintenance Requirements.	Yes.
§ 63.8(c)(2)–(3)	Monitoring System Installation	Yes.
§ 63.8(c)(4)	CMS Requirements	No. CMS requirements are specified in referenced subparts G and SS of this part 63.
§ 63.8(c)(4)(i)–(ii)		Only for the alternative standard, but § 63.8(c)(4)(i) does not apply because the alternative standard does not require continuous opacity monitoring systems (COMS).
§ 63.8(c)(5)	COMS Minimum Procedures	No. Subpart FFFF does not contain opacity or VE limits.
§ 63.8(c)(6)	CMS Requirements	Only for the alternative standard in § 63.2505.
§ 63.8(c)(7)–(8)	CMS Requirements	Only for the alternative standard in § 63.2505. Requirements for CPMS are specified in referenced subparts G and SS of this part 63.
§ 63.8(d)	CMS Quality Control	Only for the alternative standard in § 63.2505.
§ 63.8(e)	CMS Performance Evaluation	Only for the alternative standard in § 63.2505, but § 63.8(e)(5)(ii) does not apply because the alternative standard does not require COMS.
§ 63.8(f)(1)–(5)	Alternative Monitoring Method	Yes, except you may also request approval using the precompliance report.
§ 63.8(f)(6)	Alternative to Relative Accuracy Test	Only applicable when using CEMS to demonstrate compliance, including the alternative standard in § 63.2505.
§ 63.8(g)(1)–(4)	Data Reduction	Only when using CEMS, including for the alternative standard in § 63.2505, except that the requirements for COMS do not apply because subpart FFFF has no opacity or VE limits, and § 63.8(g)(2) does not apply because data reduction requirements for CEMS are specified in § 63.2450(j).
§ 63.8(g)(5)	Data Reduction	No. Requirements for CEMS are specified in § 63.2450(j). Requirements for CPMS are specified in referenced subparts G and SS of this part 63.
§ 63.9(a)	Notification Requirements	Yes.
§ 63.9(b)(1)–(5)	Initial Notifications	Yes.
§ 63.9(c)	Request for Compliance Extension	Yes.
§ 63.9(d)	Notification of Special Compliance Requirements for New Source.	Yes.
§ 63.9(e)	Notification of Performance Test	Yes.
§ 63.9(f)	Notification of VE/Opacity Test	No. Subpart FFFF does not contain opacity or VE limits.

TABLE 12 TO SUBPART FFFF OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART FFFF—Continued

Citation	Subject	Explanation
§ 63.9(g)	Additional Notifications When Using CMS	Only for the alternative standard in § 63.2505.
§ 63.9(h)(1)–(6)	Notification of Compliance Status	Yes, except subpart FFFF has no opacity or VE limits, and § 63.9(h)(2) does not apply because § 63.2520(d) specifies the required contents and due date of the notification of compliance status report.
§ 63.9(i)	Adjustment of Submittal Deadlines	Yes.
§ 63.9(j)	Change in Previous Information	No, § 63.2520(e) specifies reporting requirements for process changes.
§ 63.10(a)	Recordkeeping/Reporting	Yes.
§ 63.10(b)(1)	Recordkeeping/Reporting	Yes.
§ 63.10(b)(2)(i)–(ii), (iv), (v)	Records related to SSM	No, §§ 63.998(d)(3) and 63.998(c)(1)(ii)(D) through (G) specify recordkeeping requirements for periods of SSM.
§ 63.10(b)(2)(iii)	Records related to maintenance of air pollution control equipment.	Yes.
§ 63.10(b)(2)(vi), (x), and (xi)	CMS Records	Only for CEMS; requirements for CPMS are specified in referenced subparts G and SS of this part 63.
§ 63.10(b)(2)(vii)–(ix)	Records	Yes.
§ 63.10(b)(2)(xii)	Records	Yes.
§ 63.10(b)(2)(xiii)	Records	Only for the alternative standard in § 63.2505.
§ 63.10(b)(2)(xiv)	Records	Yes.
§ 63.10(b)(3)	Records	Yes.
§ 63.10(c)(1)–(6), (9)–(15)	Records	Only for the alternative standard in § 63.2505.
§ 63.10(c)(7)–(8)	Records	No. Recordkeeping requirements are specified in § 63.2525.
§ 63.10(d)(1)	General Reporting Requirements	Yes.
§ 63.10(d)(2)	Report of Performance Test Results	Yes.
§ 63.10(d)(3)	Reporting Opacity or VE Observations	No. Subpart FFFF does not contain opacity or VE limits.
§ 63.10(d)(4)	Progress Reports	Yes.
§ 63.10(d)(5)(i)	Periodic Startup, Shutdown, and Malfunction Reports	No, § 63.2520(e)(4) and (5) specify the SSM reporting requirements.
§ 63.10(d)(5)(ii)	Immediate SSM Reports	No.
§ 63.10(e)(1)–(2)	Additional CMS Reports	Only for the alternative standard, but § 63.10(e)(2)(ii) does not apply because the alternative standard does not require COMS.
§ 63.10(e)(3)	Reports	No. Reporting requirements are specified in § 63.2520.
§ 63.10(e)(3)(i)–(iii)	Reports	No. Reporting requirements are specified in § 63.2520.
§ 63.10(e)(3)(iv)–(v)	Excess Emissions Reports	No. Reporting requirements are specified in § 63.2520.
§ 63.10(e)(3)(iv)–(v)	Excess Emissions Reports	No. Reporting requirements are specified in § 63.2520.
§ 63.10(e)(3)(vi)–(viii)	Excess Emissions Report and Summary Report	No. Reporting requirements are specified in § 63.2520.
§ 63.10(e)(4)	Reporting COMS data	No. Subpart FFFF does not contain opacity or VE limits.
§ 63.10(f)	Waiver for Recordkeeping/Reporting	Yes.
§ 63.11	Flares	Yes.
§ 63.12	Delegation	Yes.
§ 63.13	Addresses	Yes.
§ 63.14	Incorporation by Reference	Yes.
§ 63.15	Availability of Information	Yes.

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Part II

Environmental Protection Agency

40 CFR Part 63
National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[OAR–2003–0005–FRL–7546–8]

RIN 2060–AG96

National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national emission standards for hazardous air pollutants (NESHAP) for metal can surface coating operations located at major sources of hazardous air pollutants (HAP). The final standards implement section 112(d) of the Clean Air Act (CAA) by requiring these operations to meet HAP emission standards reflecting the application of the maximum achievable control technology (MACT). The final rule will protect air quality and promote public health by reducing emissions of HAP from facilities in the metal can surface coating source category. The HAP emitted by these facilities include ethylene glycol monobutyl ether (EGBE) and other glycol ethers, xylenes, hexane, methyl isobutyl ketone (MIBK), and methyl ethyl ketone (MEK). These HAP are associated with a variety of adverse health effects which include chronic health disorders (*e.g.*, birth defects and effects on the central nervous system, liver, and heart) and acute health disorders (*e.g.*, irritation of the lung, skin, and mucous membranes, and effects on the central nervous system), and possibly cancer. In general, these findings have only been shown with concentrations higher than those typically found in the ambient air. The final standards are expected to reduce nationwide HAP emissions from major sources in this source category by approximately 6,160 megagrams per year (Mg/yr) (6,800 tons per year (tpy)) or 70 percent from the baseline organic HAP emissions of 8,700 Mg/yr (9,600 tpy).

DATES: This rule is effective November 13, 2003. The incorporation by reference of certain publications listed in today's final rule is approved by the Director of the Federal Register as of November 13, 2003.

ADDRESSES: *Docket.* Docket ID No. OAR–2003–0005 (formerly Docket No. A–98–41) is located at the EPA Docket Center, EPA West, U.S. EPA (6102T), 1301 Constitution Avenue, NW., Washington, DC 20460.

Background Information Document. A background information document (BID) for the promulgated NESHAP may be obtained from the docket; the U.S. EPA Library (C267–01), Research Triangle Park, NC 27711, telephone number (919) 541–2777; or from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, telephone number (703) 487–4650. Refer to "National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans Background Information for Final Standards—Summary of Public Comments and Responses" (EPA–453/R–03–009). The promulgation BID contains a summary of public comments made on the proposed standards and EPA responses to the public comments.

FOR FURTHER INFORMATION CONTACT: Mr. Paul Almodóvar, Coatings and Consumer Products Group, Emission Standards Division (C539–03), U.S. EPA, Research Triangle Park, NC 27711; telephone number (919) 541–0283; facsimile number (919) 541–5689; electronic mail address: *almodovar.paul@epa.gov.*

SUPPLEMENTARY INFORMATION: *Regulated Entities.* The source category definition includes facilities that apply coatings during any stage of the can manufacturing process to metal cans or ends (including decorative tins) or to metal crowns or closures for any type of can body. In general, facilities that coat metal cans are covered under the North American Industrial Classification System (NAICS) codes listed in Table 1 of this preamble. However, facilities classified under other NAICS codes may be subject to the final standards if they meet the applicability criteria. Not all facilities classified under the NAICS codes in the following table will be subject to the standards because some of the classifications cover products outside the scope of the NESHAP for the surface coating of metal cans.

TABLE 1.—CATEGORIES AND ENTITIES POTENTIALLY REGULATED BY THE FINAL STANDARDS

Subcategory	NAICS	Examples of potentially regulated entities
One- and two-piece draw and iron (D&I) can body coatings.	332431	Two-piece beverage can facility.
Sheetcoatings	332431, 332115, 332116, 332812, 332999	Three-piece food can facility, two-piece D&I facility, one-piece aerosol can facility, *etc.*
Three-piece can assembly coatings	332431	Can assembly facility.
End coatings	332431, 332812	End manufacturing facilities.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your coating operation is regulated by this action, you should examine the applicability criteria in § 63.3481 of the final rule.

Docket. The EPA has established an official public docket for this action under Docket ID No. OAR–2003–0005 (formerly Docket No. A–98–41). The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, the public docket does not include confidential business information or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the EPA Docket Center, EPA West, Room B–102, 1301 Constitution Avenue, NW., Washington, DC 20460. The Docket Center is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566–1744, and the telephone number for the Docket Center is (202) 566–1742. A reasonable fee may be charged for copying docket materials.

Electronic Docket Access. You may access this **Federal Register** document electronically through the EPA Internet under the **Federal Register** listings at *http://www.epa.gov/fedrgstr/.*

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket

that are available electronically. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility identified above. Once in the system, select "search," then key in the appropriate docket identification number.

WorldWide Web (WWW). In addition to being available in the docket, an electronic copy of the final rule will also be available on the WWW. Following the Administrator's signature, a copy of the final rule will be posted at *www.epa.gov/ttn/oarpg* on EPA's Technology Transfer Network (TTN) policy and guidance page for newly proposed or promulgated rules. The TTN provides information and technology exchange in various areas of air pollution control. If more information regarding the TTN is needed, call the TTN HELP line at (919) 541–5384.

Judicial Review. Under section 307(b)(1) of the CAA, judicial review of the final rule is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by January 12, 2004. Under section 307(d)(7)(B) of the CAA, only an objection to the rule that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Under section 307(b)(2) of the CAA, the requirements that are the subject of today's final rule may not be challenged later in civil or criminal proceedings brought by EPA to enforce the requirements.

Outline. The information presented in this preamble is organized as follows:

I. Background
A. What Is the Source of Authority for Development of NESHAP?
B. What Criteria Are Used in the Development of NESHAP?
C. What Are the Primary Sources of Emissions and What Are the Emissions?
D. What Are the Health Effects Associated With HAP Emissions From the Surface Coating of Metal Cans?
II. Summary of the Final Rule
A. What Source Categories and Subcategories Are Affected by the Final Rule?
B. What Is the Affected Source?
C. What Are the Emission Limits, Operating Limits, and Other Standards?
D. What Are the Testing and Initial Compliance Requirements?
E. What Are the Continuous Compliance Provisions?
F. What Are the Notification, Recordkeeping, and Reporting Requirements?
III. What Are the Significant Comments and Changes Since Proposal?
A. End Coatings—Repair Spray Coatings
B. Affected Source Clarification
C. Monitoring, Recordkeeping, and Reporting Costs
D. Performance Test Costs
E. Calculation of Organic HAP Emission Reduction
IV. Summary of Environmental, Energy, and Economic Impacts
A. What Are the Air Impacts?
B. What Are the Cost Impacts?
C. What Are the Economic Impacts?
D. What Are the Non-air Health, Environmental, and Energy Impacts?
E. Potential Changes to the Impacts
V. Statutory and Executive Order Reviews
A. Executive Order 12866: Regulatory Planning and Review
B. Paperwork Reduction Act
C. Regulatory Flexibility Act
D. Unfunded Mandates Reform Act
E. Executive Order 13132: Federalism
F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments
G. Executive Order 13045: Protection of Children from Environmental Health & Safety Risks
H. Executive Order 13211: Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use
I. National Technology Transfer and Advancement Act
J. Congressional Review Act

I. Background

A. What Is the Source of Authority for Development of NESHAP?

Section 112 of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. The metal can (surface coating) category of major sources was listed on July 16, 1992 (57 FR 31576) under the Surface Coating Processes industry group. Major sources of HAP are those that emit or have the potential to emit considering controls equal to or greater than 9.1 Mg/yr (10 tpy) of any one HAP or 22.7 Mg/yr (25 tpy) of any combination of HAP.

B. What Criteria Are Used in the Development of NESHAP?

Section 112(c)(2) of the CAA requires that we establish NESHAP for the control of HAP from both new and existing major sources, based on the criteria set out in section 112(d). The CAA requires the NESHAP to reflect the maximum degree of reduction in emissions of HAP that is achievable, taking into consideration the cost of achieving the emission reduction, any non-air quality health and environmental impacts, and energy requirements. This level of control is commonly referred to as the MACT.

The MACT floor is the minimum control level allowed for NESHAP and is defined under section 112(d)(3) of the CAA. In essence, the MACT floor ensures that the standards are set at a level that ensures that all major sources achieve the level of control at least as stringent as that already achieved by the better-controlled and lower-emitting sources in each source category or subcategory. For new sources, the MACT floor cannot be less stringent than the emission control that is achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than standards for new sources, but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources in the category or subcategory (or the best-performing five sources for categories or subcategories with fewer than 30 sources).

In developing the final NESHAP, we considered control options that are more stringent than the floor, taking into consideration the cost of achieving the emission reduction, any non-air quality health and environmental impacts, and energy requirements. In the final rule, EPA is promulgating standards for both existing and new sources consistent with these statutory requirements.

C. What Are the Primary Sources of Emissions and What Are the Emissions?

The primary emission sources in metal can surface coating operations are coating application lines, drying and curing ovens, mixing and thinning areas, and equipment cleaning. Coating application lines and drying and curing ovens are the largest sources of HAP emissions. Recent reformulation efforts involving the primary coatings used in metal can surface coating operations are likely to continue as a result of the final rule and will serve to reduce HAP emissions from these sources. Mixing and thinning areas and equipment cleaning are smaller HAP emission sources, and work practice standards are used to limit the HAP emissions from these sources.

Available emission data collected during the development of the NESHAP show that the primary organic HAP emitted from metal can coating operations include EGBE and other glycol ethers, xylenes, hexane, MEK, and MIBK. Other significant organic HAP identified include isophorone, ethyl benzene, toluene, cumene, napthalene, and formaldehyde. Organic HAP emissions are regulated by the final metal can surface coating rule.

D. What Are the Health Effects Associated With HAP Emissions From the Surface Coating of Metal Cans?

Ethylene glycol monobutyl ether and other glycol ethers, xylenes, hexane, MEK, and MIBK account for 95 percent of the nationwide HAP emissions from this source category. These HAP are associated with a variety of adverse health effects which include chronic health disorders (*e.g.*, birth defects and effects on the central nervous system, liver, and heart) and acute health disorders (*e.g.*, irritation of the lung, skin, and mucous membranes, and effects on the central nervous system), and possibly cancer.

We do not have current detailed data on each of the facilities covered by these emission standards for this source category or on the people living around the facilities that would be necessary to conduct an analysis to determine the actual population exposures to the HAP emitted from these facilities and potential for resultant health effects. Therefore, we do not know the extent to which the adverse health effects described above occur in the populations surrounding these facilities. However, to the extent that adverse effects do occur, the final rule will reduce emissions and subsequent exposures.

II. Summary of the Final Rule

A. What Source Categories and Subcategories Are Affected by the Final Rule?

The final rule applies to you if you own or operate a metal can surface coating operation that uses at least 5,700 liters (1,500 gallons (gal)) of coatings per year and is a major source, is located at a major source, or is part of a major source of HAP emissions, whether or not you manufacture the metal can substrate. The surface coating operations themselves are not required to be major sources of HAP emissions in order for the surface coating operations at a major source facility to be covered by the final rule.

A metal can surface coating facility is any facility that coats metal cans or ends (including decorative tins) or metal crowns or closures for any type of can during any stage of the can manufacturing process. It includes the coating of metal sheets for subsequent processing into cans or can parts, but not the coating of metal coils for cans or can parts. (Coil coating for cans and can parts is included in the NESHAP for the surface coating of metal coil; 40 CFR part 63, subpart SSSS). The source category does not include the coating of pails and drums, which is covered in the NESHAP for the surface coating of miscellaneous metal parts and products (40 CFR part 63, subpart MMMM).

We have established four subcategories in the metal can surface coating category, including: one- and two-piece D&I can body coating, sheetcoating, three-piece can body assembly coating, and end coating. Some metal can surface coating facilities include coating operations in more than one subcategory. In those cases, the facilities are subject to more than one emission limit.

You are not subject to the final rule if your coating operation is located at an area source. An area source of HAP is any facility that has the potential to emit HAP but is not a major source. You may establish area source status by limiting the source's potential to emit HAP through appropriate mechanisms available through the permitting authority.

The outcome of two delisting petitions that have been submitted to EPA could significantly affect which sources will be subject to the final rule. These petitions are the petition to delist EGBE from the HAP list and the petition to delist the two-piece beverage can segment from the source category list. Both petitions are being reviewed by EPA. If granted, the delisting of either EGBE or the two-piece beverage can segment could significantly decrease the number of sources affected by the final rule. Once decisions on the petitions are made, we will expeditiously determine whether changes to the final rule are warranted.

B. What Is the Affected Source?

We define an affected source as a stationary source, group of stationary sources, or part of a stationary source to which a specific emission standard applies. The final rule for metal can surface coating defines the affected source as the collection of all surface coating operations within a facility associated with metal cans and ends (including decorative tins) or metal crowns or closures. Those operations involve the following: preparation of a coating for application (*e.g.*, mixing with thinners); process equipment involving storage, transfer, and handling; process equipment involving the application of coatings, thinners, and cleaning materials; handling of waste materials generated by a coating operation; and associated curing and drying equipment.

The affected source does not include research or laboratory equipment or janitorial, building, or facility maintenance operations.

C. What Are the Emission Limits, Operating Limits, and Other Standards?

Emission Limits. The final rule limits organic HAP emissions from each new or reconstructed affected source using the emission limits in Table 2 of this preamble. The final emission limits for each existing affected source are given in Table 3 of this preamble. You can choose from several compliance options in the final rule to achieve the emission limit that applies to your affected source. You can comply by applying materials (coatings and thinners) that meet the emission limit, either individually or collectively. You can also use a capture system and add-on control equipment to meet the emission limit, or you can comply by using a combination of both approaches. If you use a capture system and add-on control equipment, there are alternative control efficiency or outlet concentration limits that you may use to simplify and reduce your recordkeeping and reporting requirements. The alternative emission limits for affected sources using the control efficiency/outlet concentration compliance option are provided in Table 4 of this preamble.

TABLE 2.—EMISSION LIMITS FOR NEW OR RECONSTRUCTED AFFECTED SOURCES

If you apply surface coatings to metal cans or metal can parts in this subcategory. . .	For all coatings of this type . . .	Then, you must meet the following organic HAP emission limit in kilograms (kg) HAP/liter solids (lb HAP/gal solids): [1,2]
1. One- and two-piece D&I can body coating	a. Two-piece beverage cans—all coatings	0.04 (0.31).
	b. Two-piece food cans—all coatings	0.06 (0.50).
	c. One-piece aerosol cans—all coatings	0.08 (0.65).
2. Sheetcoating	Sheetcoating	0.02 (0.17).
3. Three-piece can assembly	a. Inside spray	0.12 (1.03).
	b. Aseptic side seam stripes on food cans	1.48 (12.37).

TABLE 2.—EMISSION LIMITS FOR NEW OR RECONSTRUCTED AFFECTED SOURCES—Continued

If you apply surface coatings to metal cans or metal can parts in this subcategory. . .	For all coatings of this type . . .	Then, you must meet the following organic HAP emission limit in kilograms (kg) HAP/liter solids (lb HAP/gal solids): [1,2]
	c. Nonaseptic side seam stripes on food cans	0.72 (5.96).
	d. Side seam stripes on general line nonfood cans.	1.18 (9.84).
	e. Side seam stripes on aerosol cans	1.46 (12.14).
4. End coating	a. Aseptic end seal compounds	0.06 (0.54).
	b. Nonaseptic end seal compounds	0.00 (0.00).
	c. Repair sprays	0.64 (5.34).

[1] If you apply surface coatings of more than one type within any one subcategory, you may calculate an overall subcategory emission limit according to 40 CFR 63.3531(i).
[2] Rounding differences in specific emission limits are attributable to unit conversions.

TABLE 3.—EMISSION LIMITS FOR EXISTING AFFECTED SOURCES

If you apply surface coatings to metal cans or metal can parts in this subcategory . . .	For all coatings of this type . . .	Then, you must meet the following organic HAP emission limit in kg HAP/liter solids (lb HAP/gal solids): [1,2]
1. One- and two-piece D&I can body coating	a. Two-piece beverage cans—all coatings	0.07 (0.59).
	b. Two-piece food cans—all coatings	0.06 (0.51).
	c. One-piece aerosol cans—all coatings	0.12 (0.99).
2. Sheetcoating	Sheetcoating	0.03 (0.26).
3. Three-piece can assembly	a. Inside spray	0.29 (2.43).
	b. Aseptic side seam stripes on food cans	1.94 (16.16).
	c. Nonaseptic side seam stripes on food cans	0.79 (6.57).
	d. Side seam stripes on general line nonfood cans.	1.18 (9.84).
	e. Side seam stripes on aerosol cans	1.46 (12.14).
4. End coating	a. Aseptic end seal compounds	0.06 (0.54).
	b. Nonaseptic end seal compounds	0.00 (0.00).
	c. Repair sprays	2.06 (17.17).

[1] If you apply surface coatings of more than one type within any one subcategory, you may calculate an overall subcategory emission limit according to 40 CFR 63.3531(i).
[2] Rounding differences in specific emission limits are attributable to unit conversions.

TABLE 4.—EMISSION LIMITS FOR AFFECTED SOURCES USING THE CONTROL EFFICIENCY/OUTLET CONCENTRATION COMPLIANCE OPTION

If you use the control efficiency/outlet concentration option to comply with the emission limitations for any coating operation(s) . . .	Then you must comply with one of the following by using an emissions control system to . . .
1. In a new or reconstructed affected source	a. Reduce emissions of total HAP, measured as total hydrocarbons (THC) (as carbon),[1] by 97 percent; or b. Limit emissions of total HAP, measured as THC (as carbon) [1] to 20 parts per million by volume, dry (ppmvd) at the control device outlet and use a permanent total enclosure.
2. In an existing affected source	a. Reduce emissions of total HAP, measured as THC (as carbon),[1] by 95 percent; or b. Limit emissions of total HAP, measured as THC (as carbon) [1] to 20 ppmvd at the control device outlet and use a permanent total enclosure.

[1] You may choose to subtract methane from THC as carbon measurements.

Operating Limits. If you reduce emissions by using a capture system and add-on control device (other than a solvent recovery system for which you conduct a liquid-liquid material balance), the operating limits apply to you. These limits are site-specific parameter limits you determine during the initial performance test of the system. For capture systems that are not permanent total enclosures (PTE), you must establish average volumetric flow rates or duct static pressure limits for each capture device (or enclosure) in each capture system. For capture systems that are PTE, you must establish limits on average facial velocity or pressure drop across openings in the enclosure.

For thermal oxidizers, you must monitor the combustion temperature. For catalytic oxidizers, you must monitor the temperature immediately before and after the catalyst bed or you must monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for the catalytic oxidizer. For carbon adsorbers for which you do not conduct a liquid-liquid material balance, you must monitor the carbon bed temperature and the amount of steam or nitrogen used to desorb the bed. For condensers, you must monitor the outlet gas temperature from the condenser. For concentrators, you must monitor the temperature of the desorption concentrate stream and the

pressure drop of the dilute stream across the concentrator.

All site-specific parameter limits that you establish must reflect operation of the capture system and control devices during a performance test that demonstrates achievement of the emission limits during representative operating conditions.

Work Practice Standards. In lieu of emission standards, section 112(h) of the CAA allows work practice standards or other requirements to be established when a pollutant cannot be emitted through a conveyance or capture system or when measurement is not practicable because of technological and economic limitations. Many metal can surface coating facilities use work practice measures to reduce HAP emissions from mixing, cleaning, storage, and waste handling areas as part of their standard operating procedures. They use those measures to decrease solvent usage and minimize exposure to workers. However, we do not have data to accurately quantify the emissions reductions achievable by the work practice measures, and it is not feasible to measure emissions or enforce a numerical standard for emissions from those operations.

Based on information received from the metal can industry during the development of the NESHAP and information available from several similar coating industries for which NESHAP have already been promulgated, we identified a variety of work practice measures for cleaning, storage, mixing, and waste handling. If you use a capture system and add-on control device to reduce emissions, you are required to develop and implement a work practice plan that specifies practices and procedures to ensure that, at a minimum, all organic-HAP-containing liquids and waste materials are stored in closed containers; spills of all organic-HAP-containing materials are minimized; closed containers or pipes are used to transport all organic-HAP-containing materials; mixing vessels for organic-HAP-containing materials are kept closed except when adding to, removing, or mixing the contents; and organic HAP emissions are minimized during all cleaning operations.

If your affected source has an existing, documented plan that incorporates steps taken to minimize emissions from the aforementioned sources, then your existing plan may be used to satisfy the requirement for a work practice plan.

Operations during Startup, Shutdown, or Malfunction. If you use a capture system and add-on control device for compliance, you are required to develop and operate according to a startup, shutdown, and malfunction plan (SSMP) during periods of startup, shutdown, or malfunction (SSM) of the capture system and add-on control device.

The NESHAP General Provisions at 40 CFR part 63, subpart A, codify certain procedures and criteria for all 40 CFR part 63 NESHAP and apply to you as indicated in the final rule. The General Provisions contain administrative procedures, preconstruction review procedures for new sources, and procedures for conducting compliance-related activities, such as notifications, recordkeeping and reporting, performance testing, and monitoring. The final rule refers to individual sections of the General Provisions to emphasize key sections that are relevant. However, unless specifically overridden in the final rule, all of the applicable General Provisions requirements apply to you.

D. What Are the Testing and Initial Compliance Requirements?

Existing affected sources must be in compliance with the final rule no later than November 13, 2006. New and reconstructed affected sources must be in compliance upon initial startup of the affected source or by November 13, 2003, whichever is later. However, affected sources are not required to demonstrate compliance until the end of the initial compliance period when they will have accumulated the necessary records to document the rolling 12-month organic HAP emission rate.

Compliance with the emission limits is based on a rolling 12-month organic HAP emission rate determined each month. Each 12-month period is a compliance period. The initial compliance period, therefore, is the 12-month period beginning on the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period begins on the compliance date and extends through the end of that month plus the following 12 months. In other words, the initial compliance period could be almost 13 months long, but all subsequent compliance periods will be 12 months long. We have defined "month" as a calendar month or a pre-specified period of 28 to 35 days to allow for flexibility at sources where data are based on a business accounting period.

Being "in compliance" means that the owner or operator of the affected source meets the requirements to achieve the final emission limitations during the initial compliance period. However, the owner or operator will not have accumulated the records for the rolling 12-month organic HAP emission rate until the end of the initial compliance period. At the end of the initial compliance period, the owner or operator uses the data and records generated to determine whether or not the affected source is in compliance with the organic HAP emission limit and other applicable requirements for that period. If the affected source does not meet the applicable limit and other requirements, it is out of compliance for the entire compliance period.

Emission Limits. There are four options for complying with the emission limits, and the testing and initial compliance requirements vary accordingly.

Option 1: Compliance Based on the Compliant Material Option. If you demonstrate compliance based on the compliant material option, you must determine the mass of organic HAP in all coatings and thinners used each month during the initial compliance period and the volume fraction of coating solids in all coatings used each month during the initial compliance period. To determine the mass of organic HAP in coatings and thinners and the volume fraction of coating solids, you may use either manufacturer's data or test results using the test methods listed below. You may use alternative test methods provided that you get EPA approval in accordance with 40 CFR 63.7(f). However, if there is any inconsistency between the test method results (either EPA's or an approved alternative) and manufacturer's data, the test method results will prevail for compliance and enforcement purposes unless, after consultation, you can demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

- For organic HAP content, use Method 311 of 40 CFR part 63, appendix A.
- The final rule allows you to use nonaqueous volatile matter as a surrogate for organic HAP. If you choose that option, then use Method 24 of 40 CFR part 60, appendix A, to determine nonaqueous volatile matter.
- For volume fraction of coating solids, use either information from the supplier or manufacturer of the material, American Society of Testing and Materials (ASTM) Method D2697–86(1998), or ASTM Method D6093–97.

To demonstrate initial compliance based on the compliant materials option, you are required to demonstrate that the organic HAP content of each coating meets the applicable emission

limits and that you use no organic-HAP-containing thinners.

Option 2: Compliance Based on the Emission Rate without Add-on Controls Option. If you demonstrate compliance based on the emission rate without add-on controls option, you must determine the mass of organic HAP in all coatings and thinners used in each coating type segment each month during the initial compliance period, and the volume fraction of coating solids in all coatings in each coating type segment used each month during the initial compliance period.

To determine the mass of organic HAP in coatings and thinners and the volume fraction of coating solids, you may use either manufacturer's data or test results using the test methods listed below. You may use alternative test methods provided that you get EPA approval in accordance with 40 CFR 63.7(f). However, if there is any inconsistency between the test method results (either EPA's or an approved alternative) and manufacturer's data, the test method results will prevail for compliance and enforcement purposes unless, after consultation, you can demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

- For organic HAP content, use Method 311 in 40 CFR part 63, appendix A.
- The final rule allows you to use nonaqueous volatile matter as a surrogate for organic HAP. If you choose that option, use Method 24 in 40 CFR part 60, appendix A to determine nonaqueous volatile matter.
- For volume fraction of coating solids, use either information from the supplier or manufacturer of the material, ASTM Method D2697–86 (Reapproved 1998), or ASTM Method D6093–97.

To demonstrate initial compliance based on the emission rate without add-on controls option, you are required to demonstrate that the total mass of organic HAP in all coatings and thinners in each coating type segment divided by the total volume of coating solids in that coating type segment meets the applicable emission limit. For the emission rate without add-on controls option, you are required to perform the following:

- Determine the quantity of each coating and thinner used in each coating type segment.
- Determine the mass of organic HAP in each coating and thinner in each coating type segment.
- Determine the volume fraction of coating solids for each coating in each coating type segment.
- Calculate the total mass of organic HAP in all materials in each coating type segment and total volume of coating solids in each coating type segment for each month of the initial compliance period. You may subtract from the total mass of organic HAP the amount contained in waste materials you send to a hazardous waste treatment, storage, and disposal facility regulated under 40 CFR part 262, 264, 265, or 266.
- Calculate the ratio of the total mass of organic HAP for the materials used in each coating type segment to the total volume of coating solids used in the segment.
- Record the calculations and results and include them in your Notification of Compliance Status.

Alternatively, if you apply coatings in more than one coating type segment within a subcategory, you may calculate an overall HAP emission limit for the subcategory and demonstrate compliance by including all coatings and thinners in all coating type segments in the subcategory in calculating the ratio of total mass of organic HAP to total volume of coating solids. If you use this approach, you must use the subcategory limit throughout the 12-month initial compliance period and may not switch between compliance with limits for individual coating type segments and an overall limit. Also, if you follow this approach, you may not include coatings in different subcategories in determining your overall HAP limit.

Option 3: Compliance Based on the Emission Rate with Add-on Controls Option. If you use a capture system and add-on control device other than a solvent recovery system for which you conduct a liquid-liquid material balance, your testing and initial compliance requirements are as follows:

- Conduct an initial performance test to determine the capture and control efficiencies of the equipment and to establish operating limits to be achieved on a continuous basis.
- Determine the mass of organic HAP in each material and the volume fraction of coating solids for each coating used each month of the initial compliance period.
- Calculate the organic HAP emissions from the controlled coating operations using the capture and control efficiencies determined during the performance test and the total mass of organic HAP in materials used in controlled coating operations.
- Calculate the ratio of the total mass of organic HAP emissions to the total volume of coating solids used each month of the initial compliance period.
- Record the calculations and results and include them in the Notification of Compliance Status.

If you use a capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances, you must determine both the efficiency of the capture system and the emissions reduction efficiency of the control device. To determine the capture efficiency, you must either verify the presence of a PTE using EPA Method 204 of 40 CFR part 51, appendix M, or use one of the protocols in § 63.3544 of the final rule to measure capture efficiency. If you have a PTE, apply and dry all the materials within the PTE, and route all exhaust gases from the PTE to a control device, then you may assume 100 percent capture.

To determine the emissions reduction efficiency of the control device, you must conduct measurements of the inlet and outlet gas streams. The test must consist of three runs, each run lasting at least 1 hour, using the following EPA Methods in 40 CFR part 60, appendix A:

- Method 1 or 1A for selection of the sampling sites.
- Method 2, 2A, 2C, 2D, 2F, or 2G to determine the gas volumetric flow rate.
- Method 3, 3A, or 3B for gas analysis to determine dry molecular weight. You may also use as an alternative to Method 3B, the manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas in ANSI/ASME PTC 19.10–1981.
- Method 4 to determine stack moisture.
- Method 25 or 25A to determine organic volatile matter concentration.

Alternatively, any other test method or data that have been validated according to the applicable procedures in Method 301 of 40 CFR part 63, appendix A, and approved by the Administrator could be used.

If you use a solvent recovery system, you may determine the overall control efficiency using a liquid-liquid material balance instead of conducting an initial performance test. If you use the material balance alternative, you are required to measure the amount of all materials used in the affected source during each month of the initial compliance period and determine the volatile matter contained in these materials. You must also measure the amount of volatile matter recovered by the solvent recovery system each month of the compliance period. Then, you must compare the amount recovered to the amount used to determine the overall control efficiency and apply this efficiency to the ratio of organic HAP to coating solids for the materials used. You must record the

calculations and results and include them in your Notification of Compliance Status.

Alternatively, if you apply coatings in more than one coating type segment within a subcategory, you may calculate an overall HAP emission limit for the subcategory and demonstrate compliance by including all coatings and thinners in all coating type segments in the subcategory in calculating the ratio of total mass of organic HAP to total volume of coating solids. If you use this approach, you must use the subcategory limit throughout the compliance period and may not switch between compliance with limits for individual coating type segments and an overall limit. Also, if you follow this approach, you may not include coatings in different subcategories in determining your overall HAP limit.

Operating Limits. As mentioned above, you must establish operating limits as part of the initial performance test of an emission capture and control system. The operating limits are the values of certain parameters measured for capture systems and control devices during the most recent performance test that demonstrated compliance with the emission limits. The final rule specifies the parameters to monitor for the types of emission control systems commonly used in the industry. Table 4 to the final rule summarizes the monitoring requirements for each type of control device.

You are required to install, calibrate, maintain, and continuously operate all monitoring equipment according to the manufacturer's specifications and ensure that the continuous parameter monitoring systems (CPMS) meet the requirements in § 63.3547 of the final rule. If you use control devices other than those identified in the final rule, you must submit the operating parameters to be monitored to the Administrator for approval. The authority to approve the parameters to be monitored is retained by EPA and is not delegated to States.

Work Practice Standards. If you use a capture system and control device for compliance, you are required to develop and implement on an ongoing basis a work practice plan for minimizing organic HAP emissions from storage, mixing, material handling, and waste handling operations. That plan must include a description of all steps taken to minimize emissions from those sources (*e.g.*, using closed storage containers, implementing practices to minimize emissions during filling and transfer of contents from containers, using spill minimization techniques, *etc.*). You must make the plan available for inspection if the Administrator requests to see it.

Operations during Startup, Shutdown, or Malfunction. If you use a capture system and control device for compliance, you are required to develop and operate according to an SSMP during periods of SSM of the capture system and control device.

Option 4: Compliance Based on the Control Efficiency/Outlet Concentration Option. If you use a capture system and add-on control device other than a solvent recovery system for which you conduct a liquid-liquid material balance, you may meet either of the applicable alternative limits summarized in Table 4 of this preamble instead of the organic HAP emission rate limits summarized in Tables 2 and 3 of this preamble. Prior to the initial performance test, you are required to install control device parameter monitoring equipment to be used to demonstrate compliance with the capture and control efficiencies (or the capture efficiency of the capture system and the oxidizer outlet concentration) and to establish operating limits to be achieved on a continuous basis. During the initial compliance test, you must use the control device parameter monitoring equipment to establish parameter values that represent your operating requirements for the control systems. You must record the initial performance test results and include them in the Notification of Compliance Status.

If you use a capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances, you must verify that the efficiency of the capture system is 100 percent and determine the emissions reduction efficiency of the control device. To verify the capture efficiency, you must either verify the presence of a PTE using EPA Method 204 of 40 CFR part 51, appendix M, or use one of the protocols in § 63.3544 of the final rule to measure capture efficiency. If you have a PTE, apply and dry all the materials within the PTE and route all exhaust gases from the enclosure to a control device, then you may assume 100 percent capture.

To determine the emissions reduction efficiency of the control device, you must conduct measurements of the inlet and outlet gas streams. The test must consist of three runs, each run lasting at least 1 hour, using the following EPA Methods in 40 CFR part 60, appendix A:

- Method 1 or 1A for selection of the sampling sites.
- Method 2, 2A, 2C, 2D, 2F, or 2G to determine the gas volumetric flow rate.
- Method 3, 3A, or 3B for gas analysis to determine dry molecular weight. You may also use as an alternative to Method 3B, the manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas in ANSI/ASME PTC 19.10–1981.
- Method 4 to determine stack moisture.
- Method 25 or 25A to determine organic volatile matter concentration. Alternatively, any other test method or data that have been validated according to the applicable procedures in Method 301 of 40 CFR part 63, appendix A, and approved by the Administrator could be used.

If you use a solvent recovery system, you may determine the overall control efficiency using a liquid-liquid material balance instead of conducting an initial performance test. If you use the material balance alternative, you are required to measure the amount of all materials used in the affected source during each month of the initial compliance period and determine the volatile matter contained in these materials. You must also measure the amount of volatile matter recovered by the solvent recovery system each month of the initial compliance period. Then, you must compare the amount recovered to the amount used to determine the overall control efficiency and apply this efficiency to the ratio of organic HAP to coating solids for the materials used. You must record the calculations and results and include them in your Notification of Compliance Status.

Operating Limits. As mentioned above, you must establish operating limits as part of the initial performance test of an emission capture and control system. The operating limits are the values of certain parameters measured for capture systems and control devices during the most recent performance test that demonstrated compliance with the emission limits. The final rule specifies the parameters to monitor for the types of emission control systems commonly used in the industry. Table 4 to the final rule summarizes the monitoring requirements for each type of control device.

You are required to install, calibrate, maintain, and continuously operate all monitoring equipment according to the manufacturer's specifications and ensure that the CPMS meet the requirements in § 63.3547 of the final rule. If you use control devices other than those identified in the final rule, you must submit the operating parameters to be monitored to the Administrator for approval. The authority to approve the parameters to

be monitored is retained by EPA and is not delegated to States.

Work Practice Standards. If you use a capture system and control device for compliance, you are required to develop and implement on an ongoing basis a work practice plan for minimizing organic HAP emissions from storage, mixing, material handling, and waste handling operations. That plan must include a description of all steps taken to minimize emissions from those sources (*e.g.*, using closed storage containers, implementing practices to minimize emissions during filling and transfer of contents from containers, using spill minimization techniques, *etc.*). You must make the plan available for inspection if the Administrator requests to see it.

Operations during Startup, Shutdown, or Malfunction. You are required to develop and operate your capture system and control device according to an SSMP during periods of SSM of the capture system and control device.

E. What Are the Continuous Compliance Provisions?

Emission Limits. Option 1: Compliance Based on the Compliant Material Option. If you demonstrate compliance with the final emission limits based on the compliant material option, you will demonstrate continuous compliance if, for each 12-month compliance period, the organic HAP content of each coating used does not exceed the applicable emission limit and you use no thinner that contains organic HAP.

Option 2: Compliance Based on the Emission Rate without Add-on Controls Option. If you demonstrate compliance with the final emission limits based on the emission rate without add-on controls option, you will demonstrate continuous compliance if, for each rolling 12-month compliance period, the ratio of organic HAP in all coatings and thinners in each coating type segment to coating solids in that coating type segment is less than or equal to the applicable emission limit. You follow the same procedures for calculating the organic HAP to coating solids ratio that you used for the initial compliance period. If you use an alternative calculated overall HAP emission limit for all coating type segments within a subcategory, you use the same procedures that you used for the initial compliance period. Whichever approach you use must be used consistently throughout each 12-month compliance period.

Option 3: Compliance Based on the Emission Rate with Add-on Controls Option. For each coating operation on which you use a capture system and control device other than a solvent recovery system for which you conduct a liquid-liquid material balance, you must use the continuous parameter monitoring results for the month in determining the mass of organic HAP emissions. If the monitoring results indicate no deviations from the operating limits and there were no bypasses of the control device, you would assume the capture system and control device are achieving the same percent emissions reduction efficiency as they did during the most recent performance test in which compliance was demonstrated. You would then apply that percent reduction to the total mass of organic HAP in materials used in controlled coating operations to determine the monthly emission rate from those operations. If there were any deviations from the operating limits during the month or any bypasses of the control device, you must account for them in the calculation of the monthly emission rate by assuming the capture system and control device were achieving zero emissions reduction during the periods of deviation, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device, and the use of these data is approved by the Administrator. Then, you would determine the annual average emission rate by calculating the ratio for the most recent 12-month period.

For each coating operation on which you use a solvent recovery system and conduct a liquid-liquid material balance each month, you will use the liquid-liquid material balance to determine control efficiency. To determine the overall control efficiency, you must measure the amount of all materials used during each month and determine the volatile matter content of these materials. You must also measure the amount of volatile matter recovered by the solvent recovery system during the month, calculate the overall control efficiency, and apply it to the total mass of organic HAP in the materials used to determine total organic HAP emissions. Then, you would determine the annual average emission rate by taking the average of the monthly ratios for the most recent 12-month period.

Operating Limits. If you use a capture system and control device, the final rule requires you to achieve on a continuous basis the operating limits you establish during the performance test. If the continuous monitoring shows that the capture system and control device are operating outside the range of values established during the performance test, you have deviated from the established operating limits.

If you operate a capture system and control device that allow emissions to bypass the control device, you must monitor for potential bypass of the control device to demonstrate that organic HAP emissions from each emission point within the affected source are being routed to the control device. You may choose from the following four monitoring procedures:

- Flow control position indicator to provide a record of whether the exhaust stream is directed to the control device.
- Car-seal or lock-and-key valve closures to secure the bypass line valve in the closed position when the control device is operating.
- Valve closure continuous monitoring to ensure that any bypass line valve or damper is closed when the control device is operating.
- Automatic shutdown system to stop the coating operation when flow is diverted from the control device.

If the bypass monitoring procedures indicate that emissions are not routed to the control device, you have deviated from your monitoring plan.

Work Practice Standards. If you use an emission capture system and control device for compliance, you are required to implement on an ongoing basis the work practice plan you developed during the initial compliance period. If you did not develop a plan for reducing organic HAP emissions or you do not implement the plan, this would be a deviation from the work practice standards.

Operations during Startup, Shutdown, or Malfunction. If you use a capture system and control device for compliance, you are required to develop and operate according to an SSMP during periods of SSM of the capture system and control device.

Option 4: Compliance Based on the Control Efficiency/Outlet Concentration Option. If you use a capture system and add-on control device other than a solvent recovery system for which you conduct a liquid-liquid material balance, your testing and continuous compliance requirements are the same as those in option 3. For add-on control systems, you are required to install control device parameter monitoring equipment to be used to demonstrate compliance with the operating requirements for add-on control systems in the final rule. If you operate a CPMS, it has to collect data at least every 15 minutes, and you must have at least three data points per hour to have a valid hour of data. You must operate the CPMS at all times that the surface coating operation and control systems

are operating. You also must conduct proper maintenance of the CPMS and maintain an inventory of necessary parts for routine repairs of the CPMS. Using the data collected with the CPMS, you must calculate and record the average values of each operating parameter according to the specified averaging times.

F. What Are the Notification, Recordkeeping, and Reporting Requirements?

You are required to comply with the applicable requirements in the NESHAP General Provisions, subpart A of 40 CFR part 63, as described in the final rule. The General Provisions notification requirements include initial notifications, notification of performance test if you are complying using a capture system and control device, notification of compliance status, and additional notifications required for affected sources with continuous monitoring systems. The General Provisions also require certain records and periodic reports.

Initial Notification. If the final standards apply to you as a new or reconstructed affected source, you must send a notification to the EPA Regional Office in the Region where your facility is located and to your State agency within 120 days after the date of initial startup or 120 days after publication of the final rule, whichever is later. Existing affected sources must send the Initial Notification within 1 year after publication of the final rule. The report notifies us and your State agency that you have constructed a new facility, reconstructed an existing facility, or have an existing facility that is subject to the final rule. Thus, it allows you and the permitting authority to plan for compliance activities. You also need to send a notification of planned construction or reconstruction of a source that would be subject to the final rule and apply for approval to construct or reconstruct.

Notification of Performance Test. If you demonstrate compliance by using a capture system and control device for which you do not conduct a liquid-liquid material balance, you must conduct a performance test. For a new or reconstructed affected source, the performance test must take place no later than 180 days after initial startup or 180 days after publication of the final rule, whichever is later. For an existing source, you must conduct the performance test no later than the compliance date. You must notify us (or the delegated State or local agency) at least 60 calendar days before the performance test is scheduled to begin, as indicated in the General Provisions for the NESHAP.

Notification of Compliance Status. Your compliance procedures depend on which compliance option you choose. For each compliance option, you must send us a Notification of Compliance Status within 30 days of the end of the initial compliance period. In the notification, you must certify whether the affected source has complied with the final standards, identify the option(s) you used to demonstrate initial compliance, summarize the data and calculations supporting the compliance demonstration, and describe how you will determine continuous compliance.

If you elect to comply by using a capture system and control device for which you conduct performance tests, you must provide the results of the tests. Your notification must also include the measured range of each monitored parameter, the operating limits established during the performance test, and information showing whether the affected source complied with its operating limits during the initial compliance period.

Recordkeeping Requirements. You are required to keep for 5 years records of reported information and all other information necessary to document compliance with the final rule. As required under the General Provisions, records for the 2 most recent years must be kept onsite; records for the other 3 years may be kept offsite. Records pertaining to the design and operation of control and monitoring equipment must be kept for the life of the equipment.

Depending on the compliance option that you choose, you must keep records of the following:

- Organic HAP content, volatile matter content, coating solids content, and quantity of the coatings and other materials applied.
- All documentation supporting Initial Notifications and Notifications of Compliance Status.

If you demonstrate compliance by using a capture system and control device, you also need to keep records of the following:

- The occurrence and duration of each SSM of the emission capture system and control device.
- All maintenance performed on the capture system and control device.
- Actions taken during SSM that are different from the procedures specified in the affected source's SSMP.
- All information necessary to demonstrate conformance with the affected source's SSMP when the plan procedures are followed.
- All information necessary to demonstrate conformance with the affected source's plan for minimizing emissions from mixing, storage, and waste handling operations.
- Each period during which a CPMS is malfunctioning or inoperative (including out-of-control periods).
- All required measurements needed to demonstrate compliance with the standards.
- All results of performance tests.

The final rule requires you to collect and keep records according to your monitoring plan. Failure to collect and keep the specified minimum data is a deviation that is separate from deviations from emission limits, operating limits, or work practice standards.

Deviations, as determined from those records, must be recorded and also reported. A deviation is any instance when any requirement or obligation established by the final rule including, but not limited to, the emission limits, operating limits, and work practice standards, is not met.

If you use a capture system and control device to reduce organic HAP emissions, you must make your SSMP available for inspection if the Administrator requests to see it. The plan must stay in your records for the life of the affected source or until the affected source is no longer subject to the final standards. If you revise the plan, you need to keep the previous superceded versions on record for 5 years following the revision.

Periodic Reports. Each year is divided into two semiannual reporting periods. If no deviations occur during a semiannual reporting period, you must submit a semiannual report stating that the affected source has been in continuous compliance. If deviations occur, you must include them in the report as follows:

- Report each deviation from the emission limit.
- If you use an emission capture system and control device, report each deviation from the work practice standards.
- If you use an emission capture system and control device, report each deviation from an operating limit and report each time a bypass line diverts emissions from the control device to the atmosphere.
- Report other specific information on the periods of time and details of deviations that occurred.

You must also include an explanation in each semiannual report if a change occurs that might affect the compliance status of the affected source or if you

change to another option for meeting the applicable emission limit.

Other Reports. You are required to submit reports for periods of SSM of the capture system and control device. If the procedures you follow during any SSM are inconsistent with your plan, you must report those procedures in immediate reports required by the General Provisions in § 63.10(d)(5)(ii) and in your semiannual reports.

III. What Are the Significant Comments and Changes Since Proposal?

Refer to the BID ("National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans Background Information for Final Standards—Summary of Public Comments and Responses," August 2003, EPA–453/R–03–009), for EPA's responses to each public comment; available in Docket No. OAR–2003–0005 (formerly Docket No. A–98–41).

A. End Coatings—Repair Spray Coatings

Comment: Two commenters stated that post-coat repair spray for easy-open ends was not covered by the proposed rule. The commenters stated that the proper classification of repair spray under the proposed NESHAP could be complicated by the various ways in which it is regulated under current State standards for reducing volatile organic compounds. The commenters recommended that EPA establish a specific emission limit for this type of coating, which has the potential for more use in the future because of increasing customer demand for easy-open ends.

Response: Using the coatings data and information provided by the commenters, we have added a separate emission limit for repair spray coatings under the end coating subcategory (formerly called end lining) in the final rule. As indicated by the name, repair spray coatings are used to cover breaks in the coating that are caused during the formation of the score in easy-open ends or to provide, after the manufacturing process, an additional protective layer for corrosion resistance. The emission limit in the final rule for repair spray coatings is 2.06 kilograms (kg) HAP/liter solids (17.17 lb HAP/gal solids) for existing affected sources and 0.64 kg HAP/liter solids (5.34 lb HAP/gal solids) for new affected sources. We also included a definition for "repair spray" in the definitions section of the final rule.

B. Affected Source Clarification

Comment: Some commenters expressed confusion regarding how we defined "affected source" and "new affected source" in the proposed rule.

Response: In § 63.3482(b) of the final rule, an affected source is defined as the collection of all coating operations used for surface coating of metal cans or ends (including decorative tins) or metal crowns or closures. Section 63.3482(c) also states that an affected source is a new affected source if you commenced its construction after January 15, 2003 (proposal date) and the construction is of a completely new metal can surface coating source where previously no metal can surface coating source had existed. Based on the definition of "reconstruction," adding capacity to an existing source with a new coating line would not trigger reconstruction, but replacing an old line with a new line could trigger reconstruction if the cost criteria for replacing equipment are met (meeting or exceeding the cost criteria is more likely for smaller sources). The General Provisions define "reconstruction" in terms of a "comparable new source." If the existing facility has multiple coating lines as part of its affected source, it is unlikely that adding a single coating line to replace an old one would cost more than 50 percent of the fixed capital cost that would be required to construct a comparable new source.

We have also clarified that the final rule applies to affected sources that use at least 5,700 liters (1,500 gal) of coatings per year. This means that the coating usage limit applies to the entire source rather than to each subcategory.

C. Monitoring, Recordkeeping, and Reporting Costs

Comment: The main industry trade association disagreed with the estimated costs of the proposed rule. The association estimated that the initial years 1 to 3 industrywide monitoring, recordkeeping, and reporting (MRR) compliance costs would total $7,068,854, which is $5,431,678 more than the EPA estimate. Also, it estimated that the average annualized industrywide MRR costs per year for year 4 and beyond would be $10,674,080, which is $3,190,207 per year more than EPA's estimate.

Response: We have changed the information collection request (ICR) cost estimates for each facility to include recalculated estimates for the amount of time associated with reading, interpreting, and summarizing regulations; rereading the regulation on a continuing basis as questions of interpretation arise during the time facilities are planning and preparing for compliance; securing outside legal and consultant services related to regulatory review and interpretation; and covering recurrent labor costs for reviewing the regulation.

We have increased the cost estimates for computer equipment and software to include upgrades for larger facilities, as well as initial computer purchases for smaller facilities. The initial estimates included a cost of $2,000 for the initial purchase for smaller facilities. The final rule includes a cost of computer equipment and software of $3,500 (per facility) for all facilities.

We have adjusted our monitoring equipment costs for add-on control devices to include installation costs, equipment costs for PTE, and costs for monitoring software. We have updated our monitoring cost estimates to include a total of $19,500 per facility instead of $4,000 per facility.

We have included regenerative thermal oxidizer (RTO) operation and maintenance costs because they were inadvertently excluded from the previous calculations. Assuming that operating time will require 30 minutes per shift and equipment maintenance will require 1 hour per week, the overall RTO capital equipment costs increase by $1.38 million.

The cost estimate as proposed used 1999 labor rates, and the current analysis uses 2001 labor rates for the metal can industry. The costs for labor requirements, computer equipment, monitoring equipment for add-on control devices, installation for the monitoring equipment, and operation and maintenance of recordkeeping and reporting are $6,823,709 for years 1 through 3 and $8,367,800 per year for year 4 and beyond.

D. Performance Test Costs

Comment: One commenter stated that the costs of performance tests were not properly accounted for in the ICR because EPA assumed the costs for performance testing would be amortized over 5 years. The commenter stated the costs of performance tests are more likely to be, on average, $25,000 per facility which would result in a total industry cost of $3,050,000, incurred and expended in year 3, compared with EPA's annualized cost estimate for performance tests of $1,147,000.

Response: We estimated the initial cost of performance testing on a control device basis. Therefore, a typical metal can surface coating facility would incur costs of $38,400 ($19,200 × 2) because there are an average of two control devices per facility in the database. Our estimated costs remain valid. However, we agree with the commenter that the initial performance testing is most likely to be conducted in the third year after

promulgation to ensure compliance with the final rule requirements, and we adjusted the appropriate cost estimated in the ICR to reflect this.

E. Calculation of Organic HAP Emission Reduction

As part of a compliance demonstration, an owner or operator of an affected source has to calculate the organic HAP emission reduction for operations with add-on capture and control systems. The equation used to calculate the emission reduction achieved with such systems in the proposed rule decreased the overall control efficiency to account for time periods when there were deviations. Using time periods alone to account for periods of deviations assumes essentially steady-state operations over the compliance period, with little variation in the quantity of coating materials used or their HAP content. While steady-state conditions may occur at some operations, others may use different quantities of coating materials or materials with different HAP content. To allow flexibility for operations that could vary over time, we have revised the equation to determine overall control efficiency.

The terms associated with the total time period of deviations (T_{dev}) and coating operations (T_{op}) that were in the proposed Equation 1 do not appear in Equation 1 of § 63.3541 of the final rule. Instead, Equation 1 of the final rule includes a term H_{unc} to represent the total mass (kg) of organic HAP in the coatings, thinners, and cleaning materials used during periods of deviations. In addition, the final rule allows a source to demonstrate that some level of control efficiency may be achieved during periods of deviations (*i.e.*, the efficiency of emission reduction is not necessarily zero during malfunctions) by showing sufficient supporting information. Two additional equations related to Equation 1 have been included to calculate total mass of organic HAP in cleaning materials and total mass of organic HAP used during periods of deviations.

IV. Summary of Environmental, Energy, and Economic Impacts

The final rule will affect 142 existing major source metal can surface coating facilities. The impacts are presented relative to a baseline reflecting the level of control prior to the final rule. Because of consolidation in the metal can surface coating industry, we do not expect there to be any net growth within the industry in the next 5 years. Therefore, the estimate of the impacts of the final rule is presented for existing facilities only. For a facility that would already be in compliance with the emission limits in the final rule, only MRR cost impacts were estimated. For more information on how impacts were estimated, *see* the BID for the final rule (EPA–453/R–03–009).

A. What Are the Air Impacts?

We estimated that compliance with the emission limits in the final rule will reduce nationwide organic HAP emissions from existing major affected sources by approximately 6,160 Mg/yr (6,800 tpy). That represents a reduction of 70 percent from the baseline organic HAP emissions of 8,700 Mg/yr (9,600 tpy). Table 5 of this preamble gives a summary of the primary air impacts for major coating segment groupings associated with implementation of the final rule.

TABLE 5.—SUMMARY OF PRIMARY AIR IMPACTS BY SUBCATEGORY OR COATING SEGMENT FOR EXISTING SOURCES

Subcategory or coating segment	Emissions before NESHAP, Mg/yr (tpy)	Emissions after NESHAP, Mg/yr (tpy)	Emissions reduction, Mg/yr (tpy)	Percent reduction
Two-piece D&I beverage can body coating.	4,468 (4,922)	1,644 (1,811)	2,824 (3,111)	63
Two-piece D&I food can body coating.	765 (843)	139 (153)	626 (690)	82
One-piece D&I aerosol can body coating.	16 (18)	16 (18)	0 (0)	0
Sheetcoating	2,289 (2,522)	404 (445)	1,885 (2,077)	82
Three-piece food can assembly coating.	370 (408)	285 (314)	85 (94)	23
Three-piece nonfood can assembly coating.	45 (50)	38 (42)	6 (7)	14
End coating	763 (841)	34 (38)	729 (803)	95
Total	8,718 (9,603)	2,560 (2,820)	6,158 (6,783)	70

B. What Are the Cost Impacts?

Cost impacts include the costs of recordkeeping and reporting, capital equipment costs, performance testing costs, monitoring equipment costs, and material costs as facilities comply with the final rule. Recordkeeping and reporting include all labor hours related to the tracking of coating usage, the cost of purchasing computer equipment, the labor hours required to write and submit reports, and the labor hours required to train personnel. Capital equipment costs for the facilities that choose to use capture equipment and add-on control devices to comply with the final rule include costs for the purchase, installation, and operation of the equipment. Performance testing costs for the facilities that choose to use add-on control devices to comply with the final standards include the labor hours required for a contractor to conduct performance testing on each control device used, and to develop the associated reports for recordkeeping and reporting purposes. Monitoring equipment costs include the purchase of thermocouples, pressure sensors, and data loggers and the installation of equipment.

Material costs include the cost of switching to low- or no-HAP coatings. For facilities that choose to use low- or no-HAP coatings to comply with the final standards, coatings with lower-HAP content are assumed to be more expensive than coatings with higher-HAP content. According to information received from industry, we assumed the incremental cost increase to be $2.00 per gal for inside sprays and $5.00 per gal for side seam stripes, which are used in three-piece food can assembly and three-piece nonfood can assembly subcategories; and $2.00 per gal for nonaseptic end seal compounds, which are used in the end coating subcategory. These incremental costs are the estimated additional costs that each

facility would incur, rather than the total material investment.

We estimate the total annualized costs for compliance with the final rule to be $58.7 million. Those estimates include $8.4 million for MRR requirements, $4.1 million for coating material costs, and $46.2 million for capital equipment.

C. What Are the Economic Impacts?

We prepared an economic impact analysis (EIA) to provide an estimate of the facility and market impacts of the final rule, as well as the social costs. The goal of the EIA was to estimate the market response of the metal can coating and production facilities to the final rule and to determine the economic impacts. Compliance costs are associated with chemical substitution during the coating process, the installation of pollution control equipment, and recordkeeping and reporting activities. We estimate the total annualized compliance costs to be $58.7 million per year divided across 142 major source facilities (owned by 30 companies).

In terms of industry impacts, metal can producers could experience a total projected decrease of $16.4 million in pretax earnings, which reflects the compliance costs associated with the production of metal cans and the resulting reductions in revenues due to the increase in the prices of the directly affected product markets and reduced quantities purchased. Through the market impacts described above, the final rule is expected to create both gainers and losers within the metal can industry. Approximately one-third of the modeled facilities may experience an increase in pretax earnings as a result of price increases that exceed their compliance costs per unit. In contrast, the remaining two-thirds of metal can facilities may experience losses in pretax earnings. In addition, the EIA indicates that none of the facilities within the metal can market are at risk of closure because of the final rule. We project overall employment to decrease by 242 employees, or 1.0 percent, as a result of the final rule.

Based on the market analysis, we project the total social cost of the final rule to be $55.7 million. The estimated social costs differ slightly from the projected engineering costs because social costs account for producer and consumer behavior. Consumers are projected to bear $34.6 million or 60 percent of the total social costs of the final rule. Producers could bear $21.6 million, or 40 percent of the total social costs. For more information, consult the EIA report supporting the final rule.

D. What Are the Non-Air Health, Environmental, and Energy Impacts?

Based on information from the industry survey responses, we found no indication that the use of low- or no-organic-HAP content coatings and thinners at existing sources would result in any increase or decrease in non-air health, environmental, and energy impacts. There will be no change in utility requirements associated with the use of these materials, so there will be no change in the amount of energy consumed as a result of the material conversion. Also, there will be no significant change in the amount of materials used or the amount of waste produced.

Many facilities in the draw and iron (D&I) can body coating and sheetcoating subcategories currently use add-on emission control devices to meet existing requirements; consequently, we anticipate that facilities in those subcategories will use add-on controls to comply with the final rule. Secondary air and energy impacts will result from fuel combustion needed to operate these control devices, which are expected to be RTO.

The RTO require electricity and the combustion of natural gas to operate and maintain operating temperatures. The electricity costs of using RTO are included in the capital expenditures. By-products of fuel combustion required to generate electricity and maintain RTO operating temperature include emission of carbon monoxide, nitrogen oxides, sulfur dioxide, and particulate matter less than 10 microns in diameter. Assuming the electricity required for RTO operation is generated at coal-fired plants built since 1978 and using air pollution emissions factors, we estimate that generation of electricity required to operate RTO at all affected D&I can body coating and sheetcoating facilities will result in increases in the following air pollutants: carbon monoxide, 35 tpy; nitrogen oxides, 156 tpy; sulfur dioxide, 775 tpy; and particulate matter, 70 tpy.

Energy impacts include the consumption of electricity and natural gas needed to operate RTO. We estimate that electricity consumption from the operation of RTO at all D&I can body coating and sheetcoating facilities will increase by 34,500,000 kilowatt hours per year, and fuel energy consumption resulting from burning natural gas will increase by 672,300 million British thermal units per year. We estimate that no significant secondary water or solid waste impacts will result from the operation of emission control devices.

E. Potential Changes to the Impacts

The outcome of two delisting petitions that have been submitted to EPA could significantly affect the estimated impacts of the final rule. These petitions are the petition to delist EGBE from the HAP list and the petition to delist the two-piece beverage can segment from the source category list. Both petitions are being reviewed by EPA. If granted, the delisting of either EGBE or the two-piece beverage can segment could significantly decrease the number of sources affected by the final rule and could affect the final emission limits. Thus, the estimated impacts could change. Once decisions on the petitions are made, we will expeditiously determine whether changes to the final rule are warranted. If changes are appropriate, EPA will take prompt action to issue such changes and to ensure that facilities do not incur unnecessary compliance expenses. The EPA will also work with affected facilities to ensure that they are not subject to inappropriate sanctions.

V. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), EPA must determine whether the regulatory action is "significant" and, therefore subject to Office of Management and Budget (OMB) review and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligation of recipients thereof; or

(4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

It has been determined that the final rule is not a "significant regulatory action" under the terms of Executive Order 12866 and is, therefore, not subject to OMB review.

B. Paperwork Reduction Act

The information collection requirements in the final rule have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501, *et seq.* The information collection requirements are not enforceable until OMB approves them.

The information requirements are based on notification, recordkeeping, and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A) which are mandatory for all operators subject to national emission standards. Those recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414). All information submitted to EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to EPA policies set forth in 40 CFR part 2, subpart B.

The final rule requires maintaining records of all coating and thinning materials data and calculations used to determine compliance. This information includes the amount (kg) used during each 12-month compliance period, mass fraction organic HAP, and, for coating materials only, mass fraction of solids.

If an add-on control device is used, records must be kept of the capture efficiency of the capture system, destruction or removal efficiency of the add-on control device, and the monitored operating parameters. In addition, records must be kept of each calculation of the affected sourcewide emissions for each monthly and rolling 12-month compliance period and all data, calculations, test results, and other supporting information used to determine this value. The recordkeeping requirements are only for the specific information needed to determine compliance.

The MRR burden for this collection (averaged over the first 3 years after the effective date of the promulgated rule) is estimated to be approximately 7,815 labor hours per year at a total annual cost of $2.27 million. That estimate includes reviewing the regulation, conducting a one-time performance test (with repeat tests where needed), and submitting the report(s); one-time submission of a SSMP with semiannual reports for any event when the procedures in the plan were not followed; semiannual compliance status reports; and recordkeeping.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's rules are listed in 40 CFR part 9. When this ICR is approved by OMB, the EPA will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number for the approved information collection requirements contained in the final rule.

C. Regulatory Flexibility Act

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the final rule. The EPA has also determined that the final rule will not have a significant economic impact on a substantial number of small entities. For the purposes of assessing the impacts of today's final rule on small entities, small entity is defined as: (1) A small business according to the Small Business Administration (SBA) size standards by NAICS code ranging from 500 to 1,000 employees; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impact of today's final rule on small entities, EPA has concluded that the final rule will not have a significant economic impact on a substantial number of small entities. Based on SBA NAICS-based size definitions and reported sales and employment data, we identified 13 small business, or 43.3 percent of the metal can companies. Small businesses are expected to incur 2 percent of the total industry annualized compliance costs of $58.7 million. We estimate that 10 of the 13 small businesses may experience an impact below 1 percent of total company sales, two small firms may experience impacts between 1 and 3 percent, and one firm may experience an impact above 3 percent of sales. For more information, consult the EIA report entitled "Economic Impact Analysis for the Final Metal Can NESHAP" in Docket No. OAR–2003–0005 (formerly Docket No. A–98–41).

Although the final rule will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has tried to reduce the impact of the final rule on small entities. Small entities will be afforded extensive flexibility in demonstrating compliance through pollution prevention rather than the use of add-on control technology. We included compliance options that give small entities flexibility in choosing the most cost effective and least burdensome alternative for their operation. For example, a facility could purchase and use low-HAP coatings and other materials (*i.e.*, pollution prevention) that meet the final standards instead of using add-on capture and control systems. This method of compliance can be demonstrated with minimum burden by using purchase and usage records. No testing of materials would be required as facility owners could show that their coatings and other materials meet the emission limits by providing formulation data supplied by the manufacturer.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under Section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, and tribal governments, in aggregate, or to the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final

rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that the final rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. The maximum total annualized cost of the final rule for any year has been estimated to be less than $58.7 million. Thus, today's final rule is not subject to the requirements of sections 202 and 205 of the UMRA. In addition, the EPA has determined that the final rule contains no regulatory requirements that might significantly or uniquely affect small governments because it contains no requirements that apply to such governments or impose obligations upon them. Therefore, today's final rule is not subject to the requirements of section 203 of UMRA.

E. Executive Order 13132: Federalism

Executive Order 13132 (64 FR 43255, August 10, 1999) requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include rules that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

The final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. The final rule does not have a significant Federal intergovernmental mandate within the meaning of section 202 of UMRA, and it will not result in costs to small governments that are equal to, or greater than, 1 percent of revenue. Thus, Executive Order 13132 does not apply to the final rule.

In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicited comments on the proposed rule from State and local officials. A summary of the comments received from two State agencies and EPA's responses to those comments is provided in sections 2.1, 2.5, 2.6, 2.7, and 2.10 of the promulgation BID (EPA–453/R–03–009).

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175 (65 FR 67249, November 9, 2000) requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." The final rule does not have tribal implications, as specified in Executive Order 13175. No tribal governments own or operate metal can surface coating operations. Thus, Executive Order 13175 does not apply to the final rule.

G. Executive Order 13045: Protection of Children from Environmental Health & Safety Risks

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, EPA must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The final rule is not subject to Executive Order 13045 because it is not economically significant, and it is based on technology performance and not on health or safety risks.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

The final rule is not subject to Executive Order 13211 (66 FR 28355, May 22, 2001) because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

The National Technology Transfer and Advancement Act (NTTAA) of 1995 (Public Law No. 104–113, § 12(d) (15 U.S.C. 272 note) directs the EPA to use voluntary consensus standards (VCS) in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. The VCS are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by VCS bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable VCS.

The final rule includes the following standards: EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 3A, 3B, 4, 24, 25, 25A, 204, 204A through F, and 311. Consistent with the NTTAA, EPA conducted searches to identify VCS in addition to these EPA methods/performance specifications. No applicable VCS were identified for EPA Methods 1A, 2A, 2D, 2F, 2G, 204, 204A through 204F, and 311. The search and review results have been documented and are placed in the docket (Docket No. OAR–2003–0005, formerly Docket No. A–98–41) of the final rule.

Three VCS described below were identified as acceptable alternatives to EPA test methods for the purposes of the final rule.

The VCS ANSI/ASME PTC 19.10–1981, "Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]," is cited in the final rule for its manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas. That part of ANSI/ASME PTC 19.10–1981, Part 10, is an acceptable alternative to Method 3B.

The two VCS, ASTM D2697–86 (Reapproved 1998), "Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings," and ASTM D6093–97, "Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer," are cited in the final rule as acceptable alternatives to EPA Method 24 to determine the volume fraction of

coating solids. Currently, EPA Method 24 does not have a procedure for determining the volume of solids in coatings. Those VCS augment the procedures in Method 24, which currently states that volume solids content be calculated from the coating manufacturer's formulation.

Six VCS: ASTM D1475–90, ASTM D2369–95, ASTM D3792–91, ASTM D4017–96a, ASTM D4457–85 (Reapproved 91), and ASTM D5403–93 are already incorporated by reference (IBR) in EPA Method 24. Five VCS: ASTM D1979–91, ASTM D3432–89, ASTM D4747–87, ASTM D4827–93, and ASTM PS9–94 are IBR in EPA Method 311.

In addition to the VCS the EPA uses in the final rule, the search for emissions measurement procedures identified 14 other VCS. The EPA determined that 11 of the 14 VCS identified for measuring emissions of the HAP or surrogates subject to emission standards in the final rule were impractical alternatives to EPA test methods for the purposes of the final rule. Therefore, EPA does not intend to adopt those VCS for that purpose. (See Docket No. OAR–2003–0005, formerly Docket No. A–98–41, for further information on the methods.)

Three of the 14 VCS identified in the search were not available at the time the review was conducted for the purposes of the final rule because they are under development by a VCS body: ASME/BSR MFC 13M, "Flow Measurement by Velocity Traverse," for EPA Method 2 (and possibly 1); ASME/BSR MFC 12M, "Flow in Closed Conduits Using Multiport Averaging Pitot Primary Flowmeters," for EPA Method 2; and ISO/CD 17895, "Paints and Varnishes—Determination of the Volatile Organic Compound Content of Water-based Emulsion Paints," for EPA Method 24.

Listed in §§ 63.3521, 63.3531, 63.3541, 63.3543, 63.3544, 63.3545, 63.3551, 63.3553, 63.3554, and 63.3555 of the final rule are the EPA testing methods. Under 40 CFR 63.7(f) and 63.8(f) of subpart A of the General Provisions, a source may apply to EPA for permission to use alternative test methods or alternative monitoring requirements in place of any of the EPA testing methods, performance specifications, or procedures.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801, *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing the final rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the final rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. § 804(2). The final rule will be effective November 13, 2003.

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: August 14, 2003.

Marianne Lamont Horinko,

Acting Administrator.

■ For the reasons stated in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is amended as follows:

PART 63—[AMENDED]

■ 1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

■ 2. Section 63.14 is amended by revising paragraphs (b)(24) and (25) and (i)(3) to read as follows:

§ 63.14 Incorporations by reference.

* * * * *

(b) * * *

(24) ASTM D2697–86 (Reapproved 1998), "Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings," IBR approved for §§ 63.3521(b)(1), 63.4141(b)(1), 63.4741(b)(1), 63.4941(b)(1), and 63.5160(c).

(25) ASTM D6093–97, "Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer," IBR approved for §§ 63.3521(b)(1), 63.4141(b)(1), 63.4741(b)(1), 63.4941(b)(1), and 63.5160(c).

* * * * *

(i) * * *

(3) ANSI/ASME PTC 19.10–1981, "Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]," IBR approved for §§ 63.865(b), 63.3360(e)(1)(iii), 63.3545(a)(3), 63.3555(a)(3), 63.4166(a)(3), 63.4362(a)(3), 63.4766(a)(3), 63.4965(a)(3), 63.5160(d)(1)(iii), 63.9307(c)(2), and 69.9323(a)(3).

* * * * *

■ 3. Part 63 is amended by adding subpart KKKK to read as follows:

Subpart KKKK—National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans

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Compliance Requirements for the Emission Rate With Add-On Controls Option

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63.3541 How do I demonstrate initial compliance?
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63.3543 What are the general requirements for performance tests?
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63.3546 How do I establish the emission capture system and add-on control device operating limits during the performance test?
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63.3551 How do I demonstrate initial compliance?
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63.3554 How do I determine the emission capture system efficiency?
63.3555 How do I determine the outlet THC emissions and add-on control device emission destruction or removal efficiency?
63.3556 How do I establish the emission capture system and add-on control device operating limits during the performance test?
63.3557 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?

Other Requirements and Information

63.3560 Who implements and enforces this subpart?
63.3561 What definitions apply to this subpart?

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Table 2 to Subpart KKKK of Part 63—Emission Limits for Existing Affected Sources
Table 3 to Subpart KKKK of Part 63—Emission Limits for Affected Sources Using the Control Efficiency/Outlet Concentration Compliance Option
Table 4 to Subpart KKKK of Part 63—Operating Limits if Using the Emission Rate with Add-on Controls Option or the Control Efficiency/Outlet Concentration Compliance Option
Table 5 to Subpart KKKK of Part 63—Applicability of General Provisions to Subpart KKKK
Table 6 to Subpart KKKK of Part 63—Default Organic HAP Mass Fraction for Solvents and Solvent Blends
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Subpart KKKK—National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans

What This Subpart Covers

§ 63.3480 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for metal can surface coating facilities. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§ 63.3481 Am I subject to this subpart?

(a) Except as provided in paragraph (c) of this section, the source category to which this subpart applies is surface coating of metal cans and ends (including decorative tins) and metal crowns and closures. It includes the subcategories listed in paragraphs (a)(1) through (4) of this section. Surface coating is the application of coatings to a substrate using, for example, spray guns or dip tanks.

(1) *One- and two-piece draw and iron can body coating.* The one- and two-piece draw and iron can body coating subcategory includes all coating processes involved in the manufacture of can bodies by the draw and iron process. This subcategory includes three distinct coating type segments reflecting the coatings appropriate for cans with different end uses. Those are two-piece beverage can body coatings, two-piece food can body coatings, and one-piece aerosol can body coatings.

(2) *Sheetcoating.* The sheetcoating subcategory includes all of the flat metal sheetcoating operations associated with the manufacture of three-piece cans, decorative tins, crowns, and closures.

(3) *Three-piece can body assembly coating.* The three-piece can body assembly coating subcategory includes all of the coating processes involved in the assembly of three-piece metal can bodies. The subcategory includes five distinct coating type segments reflecting the coatings appropriate for cans with different end uses. Those are inside spray on food cans, aseptic side seam stripes on food cans, nonaseptic side seam stripes on food cans, side seam stripes on general line nonfood cans, and side seam stripes on aerosol nonfood cans.

(4) *End coating.* The end coating subcategory includes the application of end seal compounds and repair spray coatings to metal can ends. This subcategory includes three distinct coating type segments reflecting the end seal compounds and repair sprays appropriate for can ends with different end uses. Those are aseptic end seal compounds, nonaseptic end seal compounds, and repair spray coatings.

(b) You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source, as defined in § 63.3482, that uses 5,700 liters (1,500 gallons (gal)) per year, or more, of coatings in the source category defined in paragraph (a) of this section and that is a major source, is located at a major source, or is part of a major source of emissions of hazardous air pollutants (HAP). A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year or any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year.

(c) This subpart does not apply to surface coating that meets the criteria of paragraphs (c)(1) through (5) of this section.

(1) Surface coating conducted at a source that uses only coatings, thinners, and cleaning materials that contain no organic HAP, as determined according to § 63.3521(a).

(2) Surface coating subject to any other NESHAP in this part as of November 13, 2003.

(3) Surface coating and cleaning activities that use research or laboratory equipment or that are part of janitorial, building, and facility maintenance operations.

(4) Surface coating of continuous metal coil that may subsequently be used in manufacturing cans. Subpart SSSS of this part covers surface coating performed on a continuous metal coil substrate.

(5) Surface coating of metal pails, buckets, and drums. Future subpart MMMM of this part will cover surface coating of all miscellaneous metal parts and products not explicitly covered by another subpart.

63.3482 What parts of my plant does this subpart cover?

(a) This subpart applies to each new, reconstructed, and existing affected source.

(b) The affected source is the collection of all of the items listed in paragraphs (b)(1) through (4) of this section that are used for surface coating of metal cans and ends (including decorative tins), or metal crowns or closures:

(1) All coating operations as defined in § 63.3561;

(2) All storage containers and mixing vessels in which coatings, thinners, and cleaning materials are stored or mixed;

(3) All manual and automated equipment and containers used for conveying coatings, thinners, and cleaning materials; and

(4) All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.

(c) An affected source is a new affected source if you commenced its construction after January 15, 2003 by installing new coating equipment. New coating equipment is equipment used to perform metal can surface coating at a facility where no metal can surface coating was previously performed and the construction is of a completely new metal can surface coating source where previously no metal can surface coating source had existed.

(d) An affected source is reconstructed if you meet the criteria as defined in § 63.2.

(e) An affected source is existing if it is not new or reconstructed.

§ 63.3483 When do I have to comply with this subpart?

The date by which you must comply with this subpart is called the compliance date. The compliance date for each type of affected source is specified in paragraphs (a) through (c) of this section. The compliance date begins the initial compliance period during which you conduct the initial compliance demonstration described in §§ 63.3520, 63.3530, 63.3540, and 63.3550.

(a) For a new or reconstructed affected source, the compliance date is the applicable date in paragraph (a)(1) or (2) of this section.

(1) If the initial startup of your new or reconstructed affected source is before November 13, 2003, the compliance date is November 13, 2003.

(2) If the initial startup of your new or reconstructed affected source occurs after November 13, 2003, the compliance date is the date of initial startup of your affected source.

(b) For an existing affected source, the compliance date is November 13, 2006.

(c) For an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP emissions, the compliance date is specified in paragraphs (c)(1) and (2) of this section.

(1) For any portion of the source that becomes a new or reconstructed affected source subject to this subpart, the compliance date is the date of initial startup of the affected source or November 13, 2003 whichever is later.

(2) For any portion of the source that becomes an existing affected source subject to this subpart, the compliance date is the date 1 year after the area source becomes a major source or November 13, 2006, whichever is later.

(d) You must meet the notification requirements in § 63.3510 according to the dates specified in that section and in subpart A of this part. Some of the notifications must be submitted before the compliance dates described in paragraphs (a) through (c) of this section.

Emission Limitations

§ 63.3490 What emission limits must I meet?

(a) For a new or reconstructed affected source, you must limit organic HAP emissions to the atmosphere to no more than the emission limit(s) in Table 1 to this subpart that apply to you during each 12-month compliance period, determined according to the requirements in § 63.3521, § 63.3531, or § 63.3541; or if you control emissions with an emissions control system using the control efficiency/outlet concentration option as specified in § 63.3491(d), you must reduce organic HAP emissions to the atmosphere to no more than the limit(s) in Table 3 to this subpart, determined according to the requirements of § 63.3551. If you perform surface coating in more than one subcategory or utilize more than one coating type within a subcategory, then you must meet the individual emission limit(s) for each subcategory and coating type included.

(b) For an existing affected source, you must limit organic HAP emissions to the atmosphere to no more than the emission limit(s) in Table 2 to this subpart that apply to you during each 12-month compliance period, determined according to the requirements in § 63.3521, § 63.3531, or § 63.3541; or if you control emissions with an emissions control system using the control efficiency/outlet concentration option as specified in § 63.3491(d), you must reduce organic HAP emissions to the atmosphere to no more than the limit(s) in Table 3 to this subpart, determined according to the requirements of § 63.3551. If you perform surface coating in more than one subcategory or utilize more than one coating type within a subcategory, then you must meet the individual emission limit(s) for each subcategory and coating type included.

(c) If you perform surface coating in different subcategories as described in § 63.3481(a)(1) through (4), then the coating operations in each subcategory constitute a separate affected source, and you must conduct separate compliance demonstrations for each applicable subcategory and coating type emission limit in paragraphs (a) and (b) of this section and reflect those separate determinations in notifications, reports, and records required by §§ 63.3510, 63.3511, and 63.3512, respectively.

§ 63.3491 What are my options for meeting the emission limits?

You must include all coatings and thinners used in all surface coating operations within a subcategory or coating type segment when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in § 63.3490. To make that determination, you must use at least one of the four compliance options listed in paragraphs (a) through (d) of this section. You may apply any of the compliance options to an individual coating operation or to multiple coating operations within a subcategory or coating type segment as a group. You may use different compliance options for different coating operations or at different times on the same coating operation. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document that switch as required by § 63.3512(c), and you must report it in the next semiannual compliance report required in § 63.3511.

(a) *Compliant material option.* Demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit in § 63.3490, and that each thinner used contains no organic HAP. You must meet all the requirements of §§ 63.3520, 63.3521, and 63.3522 to demonstrate compliance with the emission limit using this option.

(b) *Emission rate without add-on controls option.* Demonstrate that, based on the coatings and thinners used in the coating operation(s), the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in § 63.3490, calculated as a rolling 12-month emission rate and determined on a monthly basis. You must meet all the requirements of §§ 63.3530, 63.3531, and 63.3532 to demonstrate compliance with the emission limit using this option.

(c) *Emission rate with add-on controls option.* Demonstrate that, based on the coatings and thinners used in the

coating operation(s) and the emission reductions achieved by emission capture systems and add-on controls, the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in § 63.3490, calculated as a rolling 12-month emission rate and determined on a monthly basis. If you use this compliance option, you must also demonstrate that all emission capture systems and add-on control devices for the coating operation(s) used for purposes of complying with this subpart meet the operating limits required in § 63.3492, except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.3541(i), and that you meet the work practice standards required in § 63.3493. You must meet all the requirements of §§ 63.3540 through 63.3547 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

(d) *Control efficiency/outlet concentration option.* Demonstrate that, based on the emission reductions achieved by emission capture systems and add-on controls, total HAP emissions measured as total hydrocarbon (THC) are reduced by 95 percent or greater for existing sources, or 97 percent or greater for new or reconstructed sources, or that outlet THC emissions are less than or equal to 20 parts per million by volume, dry basis (ppmvd). If you use this compliance option, you must have a capture device that meets EPA Method 204 of 40 CFR part 51, Appendix M criteria for a permanent total enclosure (PTE). You must also demonstrate that all emission capture systems and add-on control devices for the coating operation(s) used for purposes of complying with this subpart meet the operating limits required in § 63.3492, and that you meet the work practice standards required in § 63.3493. You must meet all the requirements of §§ 63.3550 through 63.3557 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

§ 63.3492 What operating limits must I meet?

(a) For any coating operation(s) on which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any operating limits.

(b) For any controlled coating operation(s) on which you use the emission rate with add-on controls option or the control efficiency/outlet concentration option, except those for which you use a solvent recovery system and conduct a liquid-liquid material balance according to § 63.3541(i), you must meet the operating limits specified in Table 4 to this subpart. Those operating limits apply to the emission capture and control systems for the coating operation(s) used for purposes of complying with this subpart. You must establish the operating limits during the performance test according to the requirements in § 63.3546 or § 63.3556, and you must meet the operating limits at all times after you establish them.

(c) If you use an add-on control device other than those listed in Table 4 to this subpart or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of alternative monitoring under § 63.8(f).

§ 63.3493 What work practice standards must I meet?

(a) For any coating operation(s) for which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any work practice standards.

(b) If you use the emission rate with add-on controls option or the control efficiency/outlet concentration option to comply with the emission limitations, you must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by, the coating operation(s) for which you use those options; or you must meet an alternative standard as provided in paragraph (c) of this section. The plan must specify practices and procedures to ensure that, at a minimum, the elements specified in paragraphs (b)(1) through (5) of this section are implemented.

(1) All organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be stored in closed containers.

(2) Spills of organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be minimized.

(3) Organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.

(4) Mixing vessels which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents.

(5) Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment.

(c) As provided in § 63.6(g), we, the U.S. Environmental Protection Agency (U.S. EPA), may choose to grant you permission to use an alternative to the work practice standards in this section.

General Compliance Requirements

§ 63.3500 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations in this subpart as specified in paragraphs (a)(1) and (2) of this section.

(1) Any coating operation(s) for which you use the compliant material option or the emission rate without add-on controls option, as specified in § 63.3491(a) and (b), must be in compliance with the applicable emission limit in § 63.3490.

(2) Any coating operation(s) for which you use the emission rate with add-on controls option, as specified in § 63.3491(c), or the control efficiency/outlet concentration option, as specified in § 63.3491(d), must be in compliance with the emission limitations as specified in paragraphs (a)(2)(i) through (iii) of this section.

(i) The coating operation(s) must be in compliance with the applicable emission limit in § 63.3490 at all times.

(ii) The coating operation(s) must be in compliance with the operating limits for emission capture systems and add-on control devices required by § 63.3492 at all times, except for those for which you use a solvent recovery system and conduct liquid-liquid material balances according to § 63.3541(i). The operating limits apply only to capture systems and control devices used for purposes of complying with this subpart.

(iii) The coating operation(s) must be in compliance with the work practice standards in § 63.3493 at all times.

(b) You must always operate and maintain your affected source, including all air pollution control and monitoring equipment you use for purposes of complying with this subpart, according to the provisions in § 63.6(e)(1)(i).

(c) If your affected source uses an emission capture system and add-on control device for purposes of complying with this subpart, you must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in § 63.6(e)(3). The plan must address startup, shutdown, and corrective actions in the event of a malfunction of the emission capture system or the add-on control device. The plan must also address any coating operation

equipment that may cause increased emissions or that would affect capture efficiency if the process equipment malfunctions, such as conveyors that move parts among enclosures.

§ 63.3501 What parts of the General Provisions apply to me?

Table 5 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

Notifications, Reports, and Records

§ 63.3510 What notifications must I submit?

(a) *General.* You must submit the notifications in §§ 63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (e) and (h) that apply to you by the dates specified in those sections, except as provided in paragraphs (b) and (c) of this section.

(b) *Initial notification.* You must submit the Initial Notification required by § 63.9(b) for a new or reconstructed affected source no later than 120 days after initial startup or 120 days after November 13, 2003, whichever is later. For an existing affected source, you must submit the Initial Notification no later than November 13, 2004.

(c) *Notification of compliance status.* You must submit the Notification of Compliance Status required by § 63.9(h) no later than 30 calendar days following the end of the initial compliance period described in § 63.3520, § 63.3530, § 63.3540, or § 63.3550 that applies to your affected source. The Notification of Compliance Status must contain the information specified in paragraphs (c)(1) through (9) of this section and in § 63.9(h).

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of the report and beginning and ending dates of the reporting period. The reporting period is the initial compliance period described in § 63.3520, § 63.3530, § 63.3540, or § 63.3550 that applies to your affected source.

(4) Identification of the compliance option or options specified in § 63.3491 that you used on each coating operation in the affected source during the initial compliance period.

(5) Statement of whether or not the affected source achieved the emission limitations for the initial compliance period.

(6) If you had a deviation, include the information in paragraphs (c)(6)(i) and (ii) of this section.

(i) A description and statement of the cause of the deviation.

(ii) If you failed to meet the applicable emission limit in § 63.3490, include all the calculations you used to determine the kilogram (kg) organic HAP emitted per liter of coating solids used. You do not need to submit information provided by the materials suppliers or manufacturers or test reports.

(7) For each of the data items listed in paragraphs (c)(7)(i) through (iv) of this section that is required by the compliance option(s) you used to demonstrate compliance with the emission limit, include an example of how you determined the value, including calculations and supporting data. Supporting data can include a copy of the information provided by the supplier or manufacturer of the example coating or material or a summary of the results of testing conducted according to § 63.3521(a), (b), or (c). You do not need to submit copies of any test reports.

(i) Mass fraction of organic HAP for one coating and for one thinner.

(ii) Volume fraction of coating solids for one coating.

(iii) Density for one coating and one thinner, except that if you use the compliant material option, only the example coating density is required.

(iv) The amount of waste materials and the mass of organic HAP contained in the waste materials for which you are claiming an allowance in Equation 1 of § 63.3531.

(8) The calculation of kg organic HAP emitted per liter of coating solids used for the compliance option(s) you used, as specified in paragraphs (c)(8)(i) through (iii) of this section.

(i) For the compliant material option, provide an example calculation of the organic HAP content for one coating, using Equation 1 of § 63.3521.

(ii) For the emission rate without add-on controls option, provide the calculation of the total mass of organic HAP emissions for each month, the calculation of the total volume of coating solids used each month, and the calculation of the 12-month organic HAP emission rate, using Equations 1, 1A through 1C, 2, and 3, respectively, of § 63.3531.

(iii) For the emission rate with add-on controls option, provide the calculation of the total mass of organic HAP emissions for the coatings and thinners used each month, using Equations 1 and 1A through 1C of § 63.3531; the calculation of the total volume of coating solids used each month, using Equation 2 of § 63.3531; the calculation of the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices, using Equations 1 and 1A through 1D of § 63.3541, and Equations 2, 3, and 3A through 3C of § 63.3541, as applicable; the calculation of the total mass of organic HAP emissions each month, using Equation 4 of § 63.3541, as applicable; and the calculation of the 12-month organic HAP emission rate, using Equation 5 of § 63.3541.

(9) For the emission rate with add-on controls option or the control efficiency/outlet concentration option, you must include the information specified in paragraphs (c)(9)(i) through (iv) of this section. The requirements in paragraphs (c)(9)(i) through (iii) of this section do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.3541(i).

(i) For each emission capture system, a summary of the data and copies of the calculations supporting the determination that the emission capture system is a PTE or a measurement of the emission capture system efficiency. Include a description of the protocol followed for measuring capture efficiency, summaries of any capture efficiency tests conducted, and any calculations supporting the capture efficiency determination. If you use the data quality objective (DQO) or lower confidence limit (LCL) approach, you must also include the statistical calculations to show you meet the DQO or LCL criteria in appendix A to subpart KK of this part. You do not need to submit complete test reports.

(ii) A summary of the results of each add-on control device performance test. You do not need to submit complete test reports.

(iii) A list of each emission capture system's and add-on control device's operating limits and a summary of the data used to calculate those limits.

(iv) A statement of whether or not you developed and implemented the work practice plan required by § 63.3493.

§ 63.3511 What reports must I submit?

(a) *Semiannual compliance reports.* You must submit semiannual compliance reports for each affected source according to the requirements of paragraphs (a)(1) through (7) of this section. The semiannual compliance reporting requirements may be satisfied by reports required under other parts of the Clean Air Act (CAA), as specified in paragraph (a)(2) of this section.

(1) *Dates.* Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must prepare and submit each semiannual compliance report according to the dates specified in paragraphs (a)(1)(i) through (iv) of this

section. Note that the information reported for each of the months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(i) The first semiannual compliance report must cover the first semiannual reporting period which begins the day after the end of the initial compliance period described in § 63.3520, § 63.3530, § 63.3540, or § 63.3550 that applies to your affected source and ends on June 30 or December 31, whichever occurs first following the end of the initial compliance period.

(ii) Each subsequent semiannual compliance report must cover the subsequent semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(iii) Each semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(iv) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of the date specified in paragraph (a)(1)(iii) of this section.

(2) *Inclusion with title V report.* Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a semiannual compliance report pursuant to this section along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the semiannual compliance report includes all required information concerning deviations from any emission limitation in this subpart, its submission will be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a semiannual compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permitting authority.

(3) *General requirements.* The semiannual compliance report must contain the information specified in paragraphs (a)(3)(i) through (v) of this section and the information specified in paragraphs (a)(4) through (7) and (c)(1) of this section that is applicable to your affected source.

(i) Company name and address.

(ii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(iii) Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31. Note that the information reported for each of the 6 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(iv) Identification of the compliance option or options specified in § 63.3491 that you used on each coating operation during the reporting period. If you switched between compliance options during the reporting period, you must report the beginning and ending dates you used each option.

(v) If you used the emission rate without add-on controls or the emission rate with add-on controls compliance option (§ 63.3491(b) or (c)), the calculation results for each rolling 12-month organic HAP emission rate during the 6-month reporting period.

(4) *No deviations.* If there were no deviations from the emission limitations, operating limits, or work practice standards in §§ 63.3490, 63.3492, and 63.3493 that apply to you, the semiannual compliance report must include a statement that there were no deviations from the emission limitations during the reporting period. If you used the emission rate with add-on controls option or the control efficiency/outlet concentration option and there were no periods during which the continuous parameter monitoring systems (CPMS) were out of control as specified in § 63.8(c)(7), the semiannual compliance report must include a statement that there were no periods during which the CPMS were out of control during the reporting period.

(5) *Deviations: compliant material option.* If you used the compliant material option and there was a deviation from the applicable emission limit in § 63.3490, the semiannual compliance report must contain the information in paragraphs (a)(5)(i) through (iv) of this section.

(i) Identification of each coating used that deviated from the emission limit, each thinner used that contained organic HAP, and the dates and time periods each was used.

(ii) The calculation of the organic HAP content (using Equation 1 of § 63.3521) for each coating identified in paragraph (a)(5)(i) of this section. You do not need to submit background data supporting this calculation (*e.g.*, information provided by coating suppliers or manufacturers, or test reports).

(iii) The determination of mass fraction of organic HAP for each coating and thinner identified in paragraph (a)(5)(i) of this section. You do not need to submit background data supporting this calculation (*e.g.*, information provided by material suppliers or manufacturers, or test reports).

(iv) A statement of the cause of each deviation.

(6) *Deviations: emission rate without add-on controls option.* If you used the emission rate without add-on controls option and there was a deviation from the applicable emission limit in § 63.3490, the semiannual compliance report must contain the information in paragraphs (a)(6)(i) through (iii) of this section.

(i) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in § 63.3490.

(ii) The calculations used to determine the 12-month organic HAP emission rate for the compliance period in which the deviation occurred. You must provide the calculations for Equations 1, 1A through 1C, 2, and 3 in § 63.3531; and if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.3531(e)(3). You do not need to submit background data supporting these calculations (*e.g.*, information provided by materials suppliers or manufacturers, or test reports).

(iii) A statement of the cause of each deviation.

(7) *Deviations: emission rate with add-on controls option.* If you used the emission rate with add-on controls option and there was a deviation from an emission limitation (including any periods when emissions bypassed the add-on control device and were diverted to the atmosphere), the semiannual compliance report must contain the information in paragraphs (a)(7)(i) through (xiv) of this section. That includes periods of startup, shutdown, and malfunction during which deviations occurred.

(i) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in § 63.3490.

(ii) The calculations used to determine the 12-month organic HAP emission rate for each compliance period in which a deviation occurred. You must provide the calculation of the total mass of organic HAP emissions for the coatings and thinners used each month, using Equations 1 and 1A through 1C of § 63.3531 and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.3531(e)(3); the calculation of the total volume of coating solids used each month, using Equation 2 of § 63.3531; the calculation of the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices, using Equations 1 and 1A through 1D of § 63.3541, and Equations 2, 3, and 3A through 3C of § 63.3541, as applicable; the calculation of the total mass of organic HAP emissions each month, using Equation 4 of § 63.3541; and the calculation of the 12-month organic HAP emission rate, using Equation 5 of § 63.3541. You do not need to submit the background data supporting these calculations (*e.g.*, information provided by materials suppliers or manufacturers, or test reports).

(iii) The date and time that each malfunction started and stopped.

(iv) A brief description of the CPMS.

(v) The date of the latest CPMS certification or audit.

(vi) The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.

(vii) The date, time, and duration that each CPMS was out of control, including the information in § 63.8(c)(8).

(viii) The date and time period of each deviation from an operating limit in Table 4 to this subpart; date and time period of any bypass of the add-on control device; and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(ix) A summary of the total duration of each deviation from an operating limit in Table 4 to this subpart and each bypass of the add-on control device during the semiannual reporting period and the total duration as a percent of the total source operating time during that semiannual reporting period.

(x) A breakdown of the total duration of the deviations from the operating limits in Table 4 to this subpart and bypasses of the add-on control device during the semiannual reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(xi) A summary of the total duration of CPMS downtime during the semiannual reporting period and the total duration of CPMS downtime as a percent of the total source operating time during that semiannual reporting period.

(xii) A description of any changes in the CPMS, coating operation, emission capture system, or add-on control device since the last semiannual reporting period.

(xiii) For each deviation from the work practice standards, a description of the deviation; the date and time period of the deviation; and the actions you took to correct the deviation.

(xiv) A statement of the cause of each deviation.

(8) *Deviations: control efficiency/outlet concentration option.* If you used the control efficiency/outlet concentration option, and there was a deviation from an emission limitation (including any periods when emissions bypassed the add-on control device and were diverted to the atmosphere), the semiannual compliance report must contain the information in paragraphs (a)(8)(i) through (xii) of this section. This includes periods of startup, shutdown, and malfunction during which deviations occurred.

(i) The date and time that each malfunction started and stopped.

(ii) A brief description of the CPMS.

(iii) The date of the latest certification or audit of the CPMS.

(iv) The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.

(v) The date, time, and duration that each CPMS was out-of-control, including the information in § 63.8(c)(8).

(vi) The date and time period of each deviation from an operating limit in Table 4 to this subpart; date and time of any bypass of the add-on control device; and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(vii) A summary of the total duration of each deviation from an operating limit in Table 4 to this subpart and each bypass of the add-on control device during the semiannual reporting period and the total duration as a percent of the total source operating time during that semiannual reporting period.

(viii) A breakdown of the total duration of the deviations from the operating limits in Table 4 to this subpart and bypasses of the add-on control device during the semiannual reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(ix) A summary of the total duration of CPMS downtime during the semiannual reporting period and the total duration of CPMS downtime as a percent of the total source operating time during that semiannual reporting period.

(x) A description of any changes in the CPMS, coating operation, emission capture system, or add-on control device since the last semiannual reporting period.

(xi) For each deviation from the work practice standards, a description of the deviation; the date and time period of the deviation; and the actions you took to correct the deviation.

(xii) A statement of the cause of each deviation.

(b) *Performance test reports.* If you use the emission rate with add-on controls option or the control efficiency/outlet concentration option, you must submit reports of performance test results for emission capture systems and add-on control devices no later than 60 days after completing the tests as specified in § 63.10(d)(2).

(c) *Startup, shutdown, malfunction reports.* If you used the emission rate with add-on controls option or the control efficiency/outlet concentration option and you had a startup, shutdown, or malfunction during the semiannual reporting period, you must submit the reports specified in paragraphs (c)(1) and (2) of this section.

(1) If your actions were consistent with your SSMP, you must include the information specified in § 63.10(d) in the semiannual compliance report required by paragraph (a) of this section.

(2) If your actions were not consistent with your SSMP, you must submit an immediate startup, shutdown, and malfunction report as described in paragraphs (c)(2)(i) and (ii) of this section.

(i) You must describe the actions taken during the event in a report delivered by facsimile, telephone, or other means to the Administrator within 2 working days after starting actions that are inconsistent with the SSMP.

(ii) You must submit a letter to the Administrator within 7 working days after the end of the event, unless you have made alternative arrangements with the Administrator as specified in § 63.10(d)(5)(ii). The letter must contain the information specified in § 63.10(d)(5)(ii).

§ 63.3512 What records must I keep?

You must collect and keep records of the data and information specified in this section. Failure to collect and keep

the records is a deviation from the applicable standard.

(a) A copy of each notification and report that you submitted to comply with this subpart and the documentation supporting each notification and report.

(b) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP and density for each coating and thinner and the volume fraction of coating solids for each coating. If you conducted testing to determine mass fraction of organic HAP, density, or volume fraction of coating solids, you must keep a copy of the complete test report. If you use information provided to you by the manufacturer or supplier of the material that was based on testing, you must keep the summary sheet of results provided to you by the manufacturer or supplier. You are not required to obtain the test report or other supporting documentation from the manufacturer or supplier.

(c) For each compliance period, the records specified in paragraphs (c)(1) through (4) of this section.

(1) A record of the coating operations at which you used each compliance option and the time periods (beginning and ending dates and times) you used each option.

(2) For the compliant material option, a record of the calculation of the organic HAP content for each coating, using Equation 1 of § 63.3521.

(3) For the emission rate without add-on controls option, a record of the calculation of the total mass of organic HAP emissions for the coatings and thinners used each month, using Equations 1, 1A through 1C, and 2 of § 63.3531 and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.3531(e)(3); the calculation of the total volume of coating solids used each month, using Equation 2 of § 63.3531; and the calculation of each 12-month organic HAP emission rate, using Equation 3 of § 63.3531.

(4) For the emission rate with add-on controls option, records of the calculations specified in paragraphs (c)(4)(i) through (v) of this section.

(i) The calculation of the total mass of organic HAP emissions for the coatings and thinners used each month, using Equations 1 and 1A through 1C of § 63.3531 and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.3531(e)(3).

(ii) The calculation of the total volume of coating solids used each month, using Equation 2 of § 63.3531.

(iii) The calculation of the mass of organic HAP emission reduction by emission capture systems and add-on control devices, using Equations 1 and 1A through 1D of § 63.3541, and Equations 2, 3, and 3A through 3C of § 63.3541, as applicable.

(iv) The calculation of the total mass of organic HAP emissions each month, using Equation 4 of § 63.3541.

(v) The calculation of each 12-month organic HAP emission rate, using Equation 5 of § 63.3541.

(5) For the control efficiency/outlet concentration option, records of the measurements made by the CPMS used to demonstrate compliance. For any coating operation(s) for which you use this option, you do not have to keep the records specified in paragraphs (d) through (g) of this section.

(d) A record of the name and volume of each coating and thinner used during each compliance period.

(e) A record of the mass fraction of organic HAP for each coating and thinner used during each compliance period.

(f) A record of the volume fraction of coating solids for each coating used during each compliance period.

(g) A record of the density for each coating used during each compliance period; and, if you use either the emission rate without add-on controls or the emission rate with add-on controls compliance option, the density for each thinner used during each compliance period.

(h) If you use an allowance in Equation 1 of § 63.3531 for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage, and disposal facility (TSDF) according to § 63.3531(e)(3) or otherwise managed in accordance with applicable Federal and State waste management regulations, you must keep records of the information specified in paragraphs (h)(1) through (3) of this section.

(1) The name and address of each TSDF or other applicable waste management location to which you sent waste materials for which you use an allowance in Equation 1 of § 63.3531, a statement of which subparts under 40 CFR parts 262, 264, 265, and 266 apply to the facility and the date of each shipment.

(2) Identification of the coating operations producing waste materials included in each shipment and the month or months in which you used the allowance for these materials in Equation 1 of § 63.3531.

(3) The methodology used in accordance with § 63.3531(e)(3) to determine the total amount of waste materials sent to or the amount collected, stored, and designated for transport to a TSDF or other applicable waste management location each month and the methodology to determine the mass of organic HAP contained in these waste materials. That must include the sources for all data used in the determination, methods used to generate the data, frequency of testing or monitoring, and supporting calculations and documentation, including the waste manifest for each shipment.

(i) You must keep records of the date, time, and duration of each deviation.

(j) If you use the emission rate with add-on controls option or the control efficiency/outlet concentration option, you must keep the records specified in paragraphs (j)(1) through (8) of this section.

(1) For each deviation, a record of whether the deviation occurred during a period of startup, shutdown, or malfunction.

(2) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) The records required to show continuous compliance with each operating limit specified in Table 4 to this subpart that applies to you.

(4) For each capture system that is a PTE, the data and documentation you used to support a determination that the capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and has a capture efficiency of 100 percent, as specified in § 63.3544(a).

(5) For each capture system that is not a PTE, the data and documentation you used to determine capture efficiency according to the requirements specified in §§ 63.3543 and 63.3544(b) through (e) including the records specified in paragraphs (j)(5)(i) through (iii) of this section that apply to you.

(i) *Records for a liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* Records of the mass of total volatile hydrocarbon (TVH) as measured by Method 204A or F of appendix M to 40 CFR part 51 for each material used in the coating operation and the total TVH for all materials used during each capture efficiency test run including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure (TTE) or building enclosure during each capture efficiency test run, as measured by Method 204D or E of appendix M to 40 CFR part 51, including a copy of the test

report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a TTE or a building enclosure.

(ii) *Records for a gas-to-gas protocol using a temporary total enclosure or a building enclosure.* Records of the mass of TVH emissions captured by the emission capture system as measured by Method 204B or C of appendix M to 40 CFR part 51 at the inlet to the add-on control device including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the TTE or building enclosure during each capture efficiency test run as measured by Method 204D or E of appendix M to 40 CFR part 51 including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a TTE or a building enclosure.

(iii) *Records for an alternative protocol.* Records needed to document a capture efficiency determination using an alternative method or protocol as specified in § 63.3544(e) if applicable.

(6) The records specified in paragraphs (j)(6)(i) and (ii) of this section for each add-on control device organic HAP destruction or removal efficiency determination as specified in § 63.3545 or § 63.3555.

(i) Records of each add-on control device performance test conducted according to § 63.3543 or § 63.3553 and § 63.3545 or § 63.3555.

(ii) Records of the coating operation conditions during the add-on control device performance test showing that the performance test was conducted under representative operating conditions.

(7) Records of the data and calculations you used to establish the emission capture and add-on control device operating limits as specified in § 63.3546 or § 63.3556 and to document compliance with the operating limits as specified in Table 4 to this subpart.

(8) A record of the work practice plan required by § 63.3493 and documentation that you are implementing the plan on a continuous basis.

§ 63.3513 In what form and for how long must I keep my records?

(a) Your records must be kept in a form suitable and readily available for expeditious review, according to § 63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database.

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You may keep the records off site for the remaining 3 years.

Compliance Requirements for the Compliant Material Option

§ 63.3520 By what date must I conduct the initial compliance demonstration?

You must complete the initial compliance demonstration for the initial compliance period according to the requirements in § 63.3521. The initial compliance period begins on the applicable compliance date specified in § 63.3483 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. The initial compliance demonstration includes the calculations according to § 63.3521 and supporting documentation showing that, during the initial compliance period, you used no coating with an organic HAP content that exceeded the applicable emission limit in § 63.3490 and you used no thinners that contained organic HAP.

§ 63.3521 How do I demonstrate initial compliance with the emission limitations?

You may use the compliant material option for any individual coating operation, for any group of coating operations within a subcategory or coating type segment, or for all the coating operations within a subcategory or coating type segment. You must use either the emission rate without add-on controls option, the emission rate with add-on controls option, or the control efficiency/outlet concentration option for any coating operation in the affected source for which you do not use that option. To demonstrate initial compliance using the compliant material option, the coating operation or group of coating operations must use no coating with an organic HAP content that exceeds the applicable emission limit in § 63.3490 and must use no thinner that contains organic HAP as determined according to this section. Any coating operation for which you use the compliant material option is not required to meet the operating limits or work practice standards required in §§ 63.3492 and 63.3493, respectively. You must conduct a separate initial compliance demonstration for each one and two-piece draw and iron can body coating, sheetcoating, three-piece can body assembly coating, and end coating affected source. You must meet all the requirements of this section for the coating operation or group of coating operations using this option. Use the procedures in this section on each coating and thinner in the condition it is in when it is received from its manufacturer or supplier and prior to any alteration (*e.g.*, mixing or thinning). Do not include any coatings or thinners used on coating operations for which you use the emission rate without add-on controls option, the emission rate with add-on controls option, or the control efficiency/outlet concentration option. You do not need to redetermine the HAP content of coatings or thinners that have been reclaimed onsite and reused in the coating operation(s) for which you use the compliant material option, provided these materials in their condition as received were demonstrated to comply with the compliant material option.

(a) *Determine the mass fraction of organic HAP for each material used.* You must determine the mass fraction of organic HAP for each coating and thinner used during the compliance period by using one of the options in paragraphs (a)(1) through (5) of this section.

(1) *Method 311 (appendix A to 40 CFR part 63).* You may use Method 311 for determining the mass fraction of organic HAP. Use the procedures specified in paragraphs (a)(1)(i) and (ii) of this section when performing a Method 311 test.

(i) Count each organic HAP that is measured to be present at 0.1 percent by mass or more for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is measured to be 0.5 percent of the material by mass, you do not have to count it. Express the mass fraction of each organic HAP you count as a value truncated to four places after the decimal point (*e.g.*, 0.3791).

(ii) Calculate the total mass fraction of organic HAP in the test material by adding up the individual organic HAP mass fractions and truncating the result to three places after the decimal point (*e.g.*, 0.763).

(2) *Method 24 (appendix A to 40 CFR part 60).* For coatings, you may use Method 24 to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for mass fraction of organic HAP.

(3) *Alternative method.* You may use an alternative test method for determining the mass fraction of organic HAP once the Administrator has approved it. You must follow the procedure in § 63.7(f) to submit an alternative test method for approval.

(4) *Information from the supplier or manufacturer of the material.* You may rely on information other than that generated by the test methods specified in paragraphs (a)(1) through (3) of this section, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is 0.5 percent of the material by mass, you do not have to count it. If there is a disagreement between such information and results of a test conducted according to paragraphs (a)(1) through (3) of this section, then the test method results will take precedence unless, after consultation, a regulated source can demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(5) *Solvent blends.* Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP which must be counted toward the total organic HAP mass fraction of the materials. When test data and manufacturer's data for solvent blends are not available, you may use the default values for the mass fraction of organic HAP in those solvent blends listed in Table 6 or 7 to this subpart. If you use the tables, you must use the values in Table 6 to this subpart for all solvent blends that match Table 6 entries, and you may only use Table 7 to this subpart if the solvent blends in the materials you use do not match any of the solvent blends in Table 6 and you only know whether the blend is aliphatic or aromatic. However, if the results of a Method 311 (40 CFR part 63, appendix A) test indicate higher values than those listed on Table 6 or 7 to this subpart, the Method 311 results will take precedence.

(b) *Determine the volume fraction of coating solids for each coating.* You must determine the volume fraction of coating solids (liters of coating solids per liter of coating) for each coating used during the compliance period by a test or by information provided by the supplier or the manufacturer of the material as specified in paragraphs (b)(1) and (2) of this section. If test results obtained according to paragraph (b)(1) of this section do not agree with the information obtained under paragraph (b)(2) of this section, the test results will take precedence.

(1) *ASTM Method D2697–86 (Reapproved 1998) or D6093–97.* You may use ASTM Method D2697–86 (Reapproved 1998), "Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings" (incorporated by reference, see § 63.14), or D6093–97, "Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer" (incorporated by reference, *see* § 63.14), to determine the volume fraction of coating solids for each coating. Divide the nonvolatile volume percent obtained with the methods by 100 to calculate volume fraction of coating solids. If these values cannot be determined using these methods, the owner/operator may submit an alternative technique for determining the values for approval by the Administrator.

(2) *Information from the supplier or manufacturer of the material.* You may obtain the volume fraction of coating solids for each coating from the supplier or manufacturer.

(c) *Determine the density of each coating.* Determine the density of each coating used during the compliance period from test results using ASTM Method D1475–90 or information from the supplier or manufacturer of the material. If there is disagreement between ASTM Method D1475–90 test results and the supplier's or manufacturer's information, the test results will take precedence.

(d) *Calculate the organic HAP content of each coating.* Calculate the organic HAP content, kg organic HAP per liter coating solids, of each coating used during the compliance period, using Equation 1 of this section.

$$H_c = \frac{(D_c)(W_c)}{V_s} \qquad \text{(Eq. 1)}$$

Where:

H_c = Organic HAP content of the coating, kg organic HAP per liter coating solids.

D_c = Density of coating, kg coating per liter coating, determined according to paragraph (c) of this section.

W_c = mass fraction of organic HAP in the coating, kg organic HAP per kg coating, determined according to paragraph (a) of this section.

V_s = Volume fraction of coating solids, liter coating solids per liter coating, determined according to paragraph (b) of this section.

(e) *Compliance demonstration.* The organic HAP content for each coating used during the initial compliance period, determined using Equation 1 of this section, must be less than or equal to the applicable emission limit in § 63.3490 and each thinner used during the initial compliance period must contain no organic HAP, determined according to paragraph (a) of this section. You must keep all records required by §§ 63.3512 and 63.3513. As part of the Notification of Compliance Status required in § 63.3510, you must identify the coating operation(s) for which you used the compliant material option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because you used no coatings for which the organic HAP content exceeded the applicable emission limit in § 63.3490, and you used no thinners that contained organic HAP, determined according to paragraph (a) of this section.

§ 63.3522 How do I demonstrate continuous compliance with the emission limitations?

(a) For each compliance period, to demonstrate continuous compliance, you must use no coating for which the organic HAP content, determined using Equation 1 of § 63.3521, exceeds the applicable emission limit in § 63.3490 and use no thinner that contains organic HAP, determined according to § 63.3521(a). A compliance period consists of 12 months. Each month after the end of the initial compliance period described in § 63.3520 is the end of a compliance period consisting of that month and the preceding 11 months.

(b) If you choose to comply with the emission limitations by using the compliant material option, the use of any coating or thinner that does not meet the criteria specified in paragraph (a) of this section is a deviation from the emission limitations that must be reported as specified in §§ 63.3510(b)(6) and 63.3511(a)(5).

(c) As part of each semiannual compliance report required by § 63.3511, you must identify the coating operation(s) for which you used the compliant material option. If there were no deviations from the emission limitations in § 63.3490, submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because you used no coating for which the organic HAP content exceeded the applicable

emission limit in § 63.3490, and you used no thinner or cleaning material that contained organic HAP, determined according to § 63.3521(a).

(d) You must maintain records as specified in §§ 63.3512 and 63.3513.

Compliance Requirements for the Emission Rate Without Add-On Controls Option

§ 63.3530 By what date must I conduct the initial compliance demonstration?

You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3531. The initial compliance period begins on the applicable compliance date specified in § 63.3483 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and volume of coating solids used each month and then calculate a 12-month organic HAP emission rate at the end of the initial 12-month compliance period. The initial compliance demonstration includes the calculations according to § 63.3531 and supporting documentation showing that, during the initial compliance period, the organic HAP emission rate was equal to or less than the applicable emission limit in § 63.3490.

§ 63.3531 How do I demonstrate initial compliance with the emission limitations?

You may use the emission rate without add-on controls option for any coating operation, for any group of coating operations within a subcategory or coating type segment, or for all of the coating operations within a subcategory or coating type segment. You must use either the compliant material option, the emission rate with add-on controls option, or the control efficiency/outlet concentration option for any coating operation in the affected source for which you do not use this option. If you use the alternative overall emission limit for a subcategory according to paragraph (i) of this section to demonstrate compliance, however, you must include all coating operations in all coating type segments in the subcategory to determine compliance with the overall limit. To demonstrate initial compliance using the emission rate without add-on controls option, the coating operation or group of coating operations must meet the applicable emission limit in § 63.3490, but is not required to meet the operating limits or work practice standards in §§ 63.3492 and 63.3493, respectively. You must conduct a separate initial compliance demonstration for each one and two-piece draw and iron can body coating, sheetcoating, three-piece can body assembly coating, and end coating affected source. You must meet all the requirements of this section to demonstrate initial compliance with the applicable emission limit in § 63.3490 for the coating operation(s). When calculating the organic HAP emission rate according to this section, do not include any coatings or thinners used on coating operations for which you use the compliant material option, the emission rate with add-on controls option, or the control efficiency/outlet concentration option or coating operations in a different affected source in a different subcategory. Use the procedures in this section on each coating and thinner in the condition it is in when it is received from its manufacturer or supplier and prior to any alteration (*e.g.*, mixing or thinning). You do not need to redetermine the mass of organic HAP in coatings or thinners that have been reclaimed onsite and reused in the coating operation(s) for which you use the emission rate without add-on controls option.

(a) *Determine the mass fraction of organic HAP for each material.* Determine the mass fraction of organic HAP for each coating and thinner used during each month according to the requirements in § 63.3521(a).

(b) *Determine the volume fraction of coating solids for each coating.* Determine the volume fraction of coating solids for each coating used during each month according to the requirements in § 63.3521(b).

(c) *Determine the density of each material.* Determine the density of each coating and thinner used during each month from test results using ASTM Method D1475–90, information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475–90 test results and such other information sources, the test results will take precedence.

(d) *Determine the volume of each material used.* Determine the volume (liters) of each coating and thinner used during each month by measurement or usage records.

(e) *Calculate the mass of organic HAP emissions.* The mass of organic HAP emissions is the combined mass of organic HAP contained in all coatings and thinners used during each month minus the organic HAP in certain waste materials. Calculate it using Equation 1 of this section.

$$H_e = A + B - R_w \qquad \text{(Eq. 1)}$$

Where:

H_e = Total mass of organic HAP emissions during the month, kg.

A = Total mass of organic HAP in the coatings used during the month, kg, as calculated in Equation 1A of this section.

B = Total mass of organic HAP in the thinners used during the month, kg, as calculated in Equation 1B of this section.

R_w = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF or other applicable waste management location for treatment or disposal during the month, kg, determined according to paragraph (e)(3) of this section. (You may assign a value of zero to R_w if you do not wish to use this allowance.)

(1) Calculate the mass of organic HAP in the coatings used during the month using Equation 1A of this section.

$$A = \sum_{i=1}^{m} \left(Vol_{c,i}\right)\left(D_{c,i}\right)\left(W_{c,i}\right) \qquad \text{(Eq. 1A)}$$

Where:

A = Total mass of organic HAP in the coatings used during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the month, liters.

$D_{c,i}$ = Density of coating, i, kg coating per liter coating.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating.

m = Number of different coatings used during the month.

(2) Calculate the mass of organic HAP in the thinners used during the month using Equation 1B of this section.

$$B = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \qquad \text{(Eq. 1B)}$$

Where:

B = Total mass of organic HAP in the thinners used during the month, kg.

$Vol_{t,j}$ = Total volume of thinner, j, used during the month, liters.

$D_{t,j}$ = Density of thinner, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner, j, kg organic HAP per kg thinner.

n = Number of different thinners used during the month.

(3) If you choose to account for the mass of organic HAP contained in waste materials sent or designated for shipment to a hazardous waste TSDF or other applicable waste management location in Equation 1 of this section, then you must determine it according to paragraphs (e)(3)(i) through (iv) of this section.

(i) You may include in the determination only waste materials that are generated by coating operations for which you use Equation 1 of this section and that will be treated or disposed of by a facility regulated as a TSDF under 40 CFR part 262, 264, 265, or 266 or otherwise managed in accordance with applicable Federal and State waste management regulations. The TSDF or other applicable waste management location may be either offsite or onsite. You may not include organic HAP contained in wastewater.

(ii) You must determine either the amount of the waste materials sent to a TSDF, or other applicable waste management location, during the month, or the amount collected and stored during the month and designated for future transport to a TSDF or other applicable waste management location. Do not include in your determination any waste materials sent to a TSDF or other applicable waste management location during a month if you have already included them in the amount collected and stored during that month or a previous month.

(iii) Determine the total mass of organic HAP contained in the waste materials specified in paragraph (e)(3)(ii) of this section.

(iv) You must document the methodology you used to determine the amount of waste materials and the total mass of organic HAP they contain as required in § 63.3512(h). To the extent that waste manifests include this information, they may be used as part of the documentation of the amount of waste materials and mass of organic HAP contained in them.

(f) *Calculate the total volume of coating solids used.* Determine the total volume of coating solids used which is the combined volume of coating solids for all the coatings used during each month using Equation 2 of this section.

$$V_{st} = \sum_{i=1}^{m} (Vol_{c,i})(V_{s,i}) \qquad \text{(Eq. 2)}$$

Where:

V_{st} = Total volume of coating solids used during the month, liters.

$Vol_{c,i}$ = Total volume of coating, i, used during the month, liters.

$V_{s,i}$ = Volume fraction of coating solids for coating, i, liter solids per liter coating, determined according to § 63.3521(b).

m = Number of coatings used during the month.

(g) *Calculate the organic HAP emission rate.* Calculate the organic HAP emission rate for the 12-month compliance period, kg organic HAP per liter coating solids used, using Equation 3 of this section.

$$H_{yr} = \frac{\sum_{y=1}^{12} H_e}{\sum_{y=1}^{12} V_{st}} \qquad \text{(Eq. 3)}$$

Where:

H_{yr} = Organic HAP emission rate for the 12-month compliance period, kg organic HAP per liter coating solids.

H_e = Total mass of organic HAP emissions, kg, from all materials used during month, y, as calculated by Equation 1 of this section.

V_{st} = Total volume of coating solids, liters, used during month, y, as calculated by Equation 2 of this section.

y = Identifier for months.

(h) *Compliance demonstration.* The organic HAP emission rate for the initial 12-month compliance period, H_{yr}, must be less than or equal to the applicable emission limit in § 63.3490. You must keep all records as required by §§ 63.3512 and 63.3513. As part of the Notification of Compliance Status required by § 63.3510, you must identify the coating operation(s) for which you used the emission rate without add-on controls option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in § 63.3490, determined according to this section.

(i) *Alternative calculation of overall subcategory emission limit (OSEL).* Alternatively, if your affected source applies coatings in more than one coating type segment within a subcategory, you may calculate an overall HAP emission limit for the subcategory using Equation 4 of this section. If you use this approach, you must limit organic HAP emissions to the atmosphere to the OSEL specified by Equation 4 of this section during each 12-month compliance period.

$$OSEL = \frac{\sum_{i=1}^{n} L_i(V_i)}{\sum_{i=1}^{n} V_i} \qquad \text{(Eq. 4)}$$

Where:

OSEL = Total allowable organic HAP in kg HAP/liter coating solids (pound (lb) HAP/gal solids) that can be emitted to the atmosphere from all coating type segments in the subcategory.

L_i = HAP emission limit for coating type segment i from Table 1 for a new or reconstructed source or Table 2 for an existing source, kg HAP/liter coating solids (lb HAP/gal solids).

V_i = Total volume of coating solids in liters (gal) for all coatings in coating type segment i used during the 12-month compliance period.

n = Number of coating type segments within one subcategory being used at the affected source.

You must use the OSEL determined by Equation 4 of this section throughout the 12-month compliance period and may not switch between compliance with individual coating type limits and an OSEL. You may not include coatings in different subcategories in determining your OSEL by this approach. You must keep all records as required by §§ 63.3512 and 63.3513. As part of the Notification of Compliance Status required by § 63.3510, you must identify the subcategory for which you used a calculated OSEL and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate for the subcategory

was less than or equal to the OSEL determined according to this section.

§ 63.3532 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance, the organic HAP emission rate for each compliance period, determined according to § 63.3531(a) through (g), must be less than or equal to the applicable emission limit in § 63.3490. Alternatively, if you calculate an OSEL for all coating type segments within a subcategory according to § 63.3531(i), the organic HAP emission rate for the subcategory for each compliance period must be less than or equal to the calculated OSEL. You must use the calculated OSEL throughout each compliance period. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in § 63.3530 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in § 63.3531(a) through (g) on a monthly basis using data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in § 63.3490 or the OSEL calculated according to § 63.3531(i), this is a deviation from the emission limitations for that compliance period and must be reported as specified in §§ 63.3510(c)(6) and 63.3511(a)(6).

(c) As part of each semiannual compliance report required by § 63.3511, you must identify the coating operation(s) for which you used the emission rate without add-on controls option. If there were no deviations from the emission limitations, you must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in § 63.3490 determined according to § 63.3531(a) through (g), or using the OSEL calculated according to § 63.3531(i).

(d) You must maintain records as specified in §§ 63.3512 and 63.3513.

Compliance Requirements for the Emission Rate With Add-On Controls Option

§ 63.3540 By what date must I conduct performance tests and other initial compliance demonstrations?

(a) *New and reconstructed affected sources.* For a new or reconstructed affected source, you must meet the requirements of paragraphs (a)(1) through (4) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in § 63.3483. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.3541(i), you must conduct a performance test of each capture system and add-on control device according to §§ 63.3543, 63.3544, and 63.3545 and establish the operating limits required by § 63.3492 no later than 180 days after the applicable compliance date specified in § 63.3483. For a solvent recovery system for which you conduct liquid-liquid material balances according to § 63.3541(i), you must initiate the first material balance no later than the applicable compliance date specified in § 63.3483.

(2) You must develop and begin implementing the work practice plan required by § 63.3493 no later than the compliance date specified in § 63.3483.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3541. The initial compliance period begins on the applicable compliance date specified in § 63.3483 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and volume of coating solids used each month and then calculate a 12-month organic HAP emission rate at the end of the initial 12-month compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§ 63.3543, 63.3544, and 63.3545; results of liquid-liquid material balances conducted according to § 63.3541(i); calculations according to § 63.3541 and supporting documentation showing that, during the initial compliance period, the organic HAP emission rate was equal to or less than the emission limit in § 63.3490(a); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.3547; and documentation of whether you developed and implemented the work practice plan required by § 63.3493.

(4) You do not need to comply with the operating limits for the emission capture system and add-on control device required by § 63.3492 until after you have completed the performance tests specified in paragraph (a)(1) of this section. Instead, you must maintain a log detailing the operation and maintenance of the emission capture system, add-on control device, and continuous parameter monitors during the period between the compliance date and the performance test. You must begin complying with the operating limits for your affected source on the date you complete the performance tests specified in paragraph (a)(1) of this section. The requirements in this paragraph (a)(4) do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements in § 63.3541(i).

(b) *Existing affected sources.* For an existing affected source, you must meet the requirements of paragraphs (b)(1) through (3) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in § 63.3483. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.3541(i), you must conduct a performance test of each capture system and add-on control device according to the procedures in §§ 63.3543, 63.3544, and 63.3545 and establish the operating limits required by § 63.3492 no later than the compliance date specified in § 63.3483. For a solvent recovery system for which you conduct liquid-liquid material balances according to § 63.3541(i), you must initiate the first material balance no later than the compliance date specified in § 63.3483.

(2) You must develop and begin implementing the work practice plan required by § 63.3493 no later than the compliance date specified in § 63.3483.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3541. The initial compliance period begins on the applicable compliance date specified in § 63.3483 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and volume of coating solids used each month and then calculate a 12-month organic HAP emission rate at the end of the initial 12-month compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests

conducted according to §§ 63.3543, 63.3544, and 63.3545; results of liquid-liquid material balances conducted according to § 63.3541(i); calculations according to § 63.3541 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the emission limit in § 63.3490(b); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.3547; and documentation of whether you developed and implemented the work practice plan required by § 63.3493.

§ 63.3541 How do I demonstrate initial compliance?

(a) You may use the emission rate with add-on controls option for any coating operation, for any group of coating operations within a subcategory or coating type segment, or for all of the coating operations within a subcategory or coating type segment. You may include both controlled and uncontrolled coating operations in a group for which you use this option. You must use either the compliant material option, the emission rate without add-on controls option, or the control efficiency/outlet concentration option for any coating operation in the affected source for which you do not use the emission rate with add-on controls option. To demonstrate initial compliance, the coating operation(s) for which you use the emission rate with add-on controls option must meet the applicable emission limitations in § 63.3490. You must conduct a separate initial compliance demonstration for each one and two-piece draw and iron can body coating, sheetcoating, three-piece can body assembly coating, and end coating affected source. You must meet all the requirements of this section to demonstrate initial compliance with the emission limitations. When calculating the organic HAP emission rate according to this section, do not include any coatings or thinners used on coating operations for which you use the compliant material option, the emission rate without add-on controls option, or the control efficiency/outlet concentration option. You do not need to redetermine the mass of organic HAP in coatings or thinners that have been reclaimed onsite and reused in the coating operation(s) for which you use the emission rate with add-on controls option.

(b) *Compliance with operating limits.* Except as provided in § 63.3540(a)(4) and except for solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements of § 63.3541(i), you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by § 63.3492 using the procedures specified in §§ 63.3546 and 63.3547.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plan required by § 63.3493 during the initial compliance period, as specified in § 63.3512.

(d) *Compliance with emission limits.* You must follow the procedures in paragraphs (e) through (n) of this section to demonstrate compliance with the applicable emission limit in § 63.3490.

(e) *Determine the mass fraction of organic HAP, density, volume used, and volume fraction of coating solids.* Follow the procedures specified in § 63.3531(a) through (d) to determine the mass fraction of organic HAP, density, and volume of each coating and thinner used during each month and the volume fraction of coating solids for each coating used during each month.

(f) *Calculate the total mass of organic HAP emissions before add-on controls.* Using Equation 1 of § 63.3531, calculate the total mass of organic HAP emissions before add-on controls from all coatings and thinners used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option.

(g) *Calculate the organic HAP emission reduction for each controlled coating operation.* Determine the mass of organic HAP emissions reduced for each controlled coating operation during each month. The emission reduction determination quantifies the total organic HAP emissions that pass through the emission capture system and are destroyed or removed by the add-on control device. Use the procedures in paragraph (h) of this section to calculate the mass of organic HAP emission reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. For each controlled coating operation using a solvent recovery system for which you conduct a liquid-liquid material balance, use the procedures in paragraph (j) of this section to calculate the organic HAP emission reduction.

(h) *Calculate the organic HAP emission reduction for each controlled coating operation not using liquid-liquid material balances.* For each controlled coating operation using an emission capture system and add-on control device, other than a solvent recovery system for which you conduct liquid-liquid material balances, calculate the organic HAP emission reduction, using Equation 1 of this section. The calculation applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings, thinners, and cleaning materials that are used in the coating operation served by the emission capture system and add-on control device during each month. For any period of time a deviation specified in § 63.3542(c) or (d) occurs in the controlled coating operation, including a deviation during a period of SSM, you must assume zero efficiency for the emission capture system and add-on control device, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device, and the use of these data has been approved by the Administrator. Equation 1 of this section treats the materials used during such a deviation as if they were used on an uncontrolled coating operation for the time period of the deviation.

$$H_c = (A_c + B_c - H_{unc})\left(\frac{CE}{100} \times \frac{DRE}{100}\right) \qquad \text{(Eq. 1)}$$

Where:

H_c = Mass of organic HAP emission reduction for the controlled coating operation during the month, kg.

A_c = Total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg, as calculated in Equation 1A of this section.

B_c = Total mass of organic HAP in the thinners used in the controlled coating operation during the month, kg, as calculated in Equation 1B of this section.

H_{unc} = Total mass of organic HAP in the coatings, thinners, and cleaning materials used during all deviations specified in § 63.3542(c) and (d) that occurred during the month in the controlled coating operation, kg, as calculated in Equation 1D of this section.

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent. Use the test methods and procedures specified in §§ 63.3543 and 63.3544 to measure and record capture efficiency.

DRE = Organic HAP destruction or removal efficiency of the add-on control device, percent. Use the test methods and procedures in §§ 63.3543 and 63.3545 to measure and record the organic HAP destruction or removal efficiency.

(1) Calculate the mass of organic HAP in the coatings used in the controlled coating operation, kg, using Equation 1A of this section.

$$A_c = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i}) \qquad \text{(Eq. 1A)}$$

Where:

A_c = Total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the month, liters.

$D_{c,i}$ = Density of coating, i, kg per liter.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg per kg.

m = Number of different coatings used.

(2) Calculate the mass of organic HAP in the thinners used in the controlled coating operation, kg, using Equation 1B of this section.

$$B_c = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \qquad \text{(Eq. 1B)}$$

Where:

B_c = Total mass of organic HAP in the thinners used in the controlled coating operation during the month, kg.

$Vol_{t,j}$ = Total volume of thinner, j, used during the month, liters.

$D_{t,j}$ = Density of thinner, j, kg per liter thinner.

$W_{t,j}$ = Mass fraction of organic HAP in thinner, j, kg organic HAP per kg thinner.

n = Number of different thinners used.

(3) Calculate the mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg, using Equation 1C of this section.

$$C_c = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k}) \qquad \text{(Eq. 1C)}$$

Where:

C_c = Total mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg.

$Vol_{s,k}$ = Total volume of cleaning material, k, used during the month, liters.

$D_{s,k}$ = Density of cleaning material, k, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg per kg.

p = Number of different cleaning materials used.

(4) Calculate the mass of organic HAP in the coatings, thinners, and cleaning materials used in the controlled coating operation during deviations specified in § 63.3542(c) and (d), using Equation 1D of this section.

$$H_{unc} = \sum_{h=1}^{q} (Vol_h)(D_h)(W_h) \qquad \text{(Eq. 1D)}$$

Where:

H_{unc} = Total mass of organic HAP in the coatings, thinners, and cleaning materials used during all deviations specified in § 63.3542(c) and (d) that occurred during the month in the controlled coating operation, kg.

Vol_h = Total volume of coating, thinner, or cleaning material, h, used in the controlled coating operation during deviations, liters.

D_h = Density of coating, thinner, or cleaning material, h, kg per liter.

W_h = Mass fraction of organic HAP in coating, thinner, or cleaning material, h, kg organic HAP per kg coating.

q = Number of different coatings, thinners, or cleaning materials.

(i) *Calculate the organic HAP emission reduction for each controlled coating operation using liquid-liquid material balances.* For each controlled coating operation using a solvent recovery system for which you conduct liquid-liquid material balances, calculate the organic HAP emission reduction by applying the volatile organic matter collection and recovery efficiency to the mass of organic HAP contained in the coatings and thinners that are used in the coating operation controlled by the solvent recovery system during each month. Perform a liquid-liquid material balance for each

month as specified in paragraphs (i)(1) through (6) of this section. Calculate the mass of organic HAP emission reduction by the solvent recovery system as specified in paragraph (i)(7) of this section.

(1) For each solvent recovery system, install, calibrate, maintain, and operate according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile organic matter recovered by the solvent recovery system each month.

(2) For each solvent recovery system, determine the mass of volatile organic matter recovered for the month, kg, based on measurement with the device required in paragraph (i)(1) of this section.

(3) Determine the mass fraction of volatile organic matter for each coating and thinner used in the coating operation controlled by the solvent recovery system during the month, kg volatile organic matter per kg coating. You may determine the volatile organic matter mass fraction using Method 24 of 40 CFR part 60, appendix A, or an EPA approved alternative method, or you may use information provided by the manufacturer or supplier of the coating. In the event of any inconsistency between information provided by the manufacturer or supplier and the results of Method 24 of 40 CFR part 60, appendix A, or an approved alternative method, the test method results will take precedence unless, after consultation, a regulated source can demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(4) Determine the density of each coating and thinner used in the coating operation controlled by the solvent recovery system during the month, kg per liter, according to § 63.3531(c).

(5) Measure the volume of each coating, thinner, and cleaning material used in the coating operation controlled by the solvent recovery system during the month, liters.

(6) Each month, calculate the solvent recovery system's volatile organic matter collection and recovery efficiency, using Equation 2 of this section.

$$R_V = 100\frac{M_{VR}}{\sum_{i=1}^{m}(Vol_i)(D_i)(WV_{c,i}) + \sum_{j=1}^{n}(Vol_j)(D_j)(WV_{t,j})} \qquad \text{(Eq. 2)}$$

Where:

R_V = Volatile organic matter collection and recovery efficiency of the solvent recovery system during the month, percent.

M_{VR} = Mass of volatile organic matter recovered by the solvent recovery system during the month, kg.

Vol_i = Volume of coating, i, used in the coating operation controlled by the solvent recovery system during the month, liters.

D_i = Density of coating, i, kg per liter.

$WV_{c,i}$ = Mass fraction of volatile organic matter for coating, i, kg volatile organic matter per kg coating.

Vol_j = Volume of thinner, j, used in the coating operation controlled by the solvent recovery system during the month, liters.

D_j = Density of thinner, j, kg per liter.

$WV_{t,j}$ = Mass fraction of volatile organic matter for thinner, j, kg volatile organic matter per kg thinner.

m = Number of different coatings used in the coating operation controlled by the solvent recovery system during the month.

n = Number of different thinners used in the coating operation controlled by the solvent recovery system during the month.

(7) Calculate the mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system during the month using Equation 3 of this section.

$$H_{CSR} = (A_{CSR} + B_{CSR})\left(\frac{R_V}{100}\right) \qquad \text{(Eq. 3)}$$

Where:

H_{CSR} = Mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system using a liquid-liquid material balance during the month, kg.

A_{CSR} = Total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3A of this section.

B_{CSR} = Total mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3B of this section.

R_V = Volatile organic matter collection and recovery efficiency of the solvent recovery system, percent, from Equation 2 of this section.

(i) Calculate the mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, using Equation 3A of this section.

$$A_{CSR} = \sum_{i=1}^{m}(Vol_{c,i})(D_{c,i})(W_{c,i}) \qquad \text{(Eq. 3A)}$$

Where:

A_{CSR} = Total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the month in the coating operation controlled by the solvent recovery system, liters.

$D_{c,i}$ = Density of coating, i, kg per liter.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg per kg.

m = Number of different coatings used.

(ii) Calculate the mass of organic HAP in the thinners used in the coating operation controlled by the solvent

recovery system using Equation 3B of this section.

$$B_{CSR} = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \qquad \text{(Eq. 3B)}$$

Where:

B_{CSR} = Total mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{t,j}$ = Total volume of thinner, j, used during the month in the coating operation controlled by the solvent recovery system, liters.

$D_{t,j}$ = Density of thinner, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner, j, kg per kg.

n = Number of different thinners used.

(j) *Calculate the total volume of coating solids used.* Determine the total volume of coating solids used, which is the combined volume of coating solids for all the coatings used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option, using Equation 2 of § 63.3531.

(k) *Calculate the mass of organic HAP emissions for each month.* Determine the mass of organic HAP emissions during each month using Equation 4 of this section.

$$H_{HAP} = H_e - \sum_{i=1}^{q} (H_{c,i}) - \sum_{j=1}^{r} (H_{CSR,j}) \qquad \text{(Eq. 4)}$$

Where:

H_{HAP} = Total mass of organic HAP emissions for the month, kg.

H_e = Total mass of organic HAP emissions before add-on controls from all the coatings and thinners used during the month, kg, determined according to paragraph (f) of this section.

$H_{C,i}$ = Total mass of organic HAP emission reduction for controlled coating operation, i, not using a liquid-liquid material balance, during the month, kg, from Equation 1 of this section.

$H_{CSR,j}$ = Total mass of organic HAP emission reduction for coating operation, j, controlled by a solvent recovery system using a liquid-liquid material balance, during the month, kg, from Equation 3 of this section.

q = Number of controlled coating operations not using a liquid-liquid material balance.

r = Number of coating operations controlled by a solvent recovery system using a liquid-liquid material balance.

(l) *Calculate the organic HAP emission rate for the 12-month compliance period.* Determine the organic HAP emission rate for the 12-month compliance period, kg organic HAP per liter coating solids used, using Equation 5 of this section.

$$H_{annual} = \frac{\sum_{y=1}^{12} H_{HAP,y}}{\sum_{y=1}^{12} V_{st,y}} \qquad \text{(Eq. 5)}$$

Where:

H_{annual} = Organic HAP emission rate for the 12-month compliance period, kg organic HAP per liter coating solids.

$H_{HAP,y}$ = Organic HAP emission rate for month, y, determined according to Equation 4 of this section.

$V_{st,y}$ = Total volume of coating solids used during month, y, liters, from Equation 2 of § 63.3531.

y = Identifier for months.

(m) *Compliance demonstration.* To demonstrate initial compliance with the emission limit, the organic HAP emission rate, calculated using Equation 5 of this section, must be less than or equal to the applicable emission limit in § 63.3490. You must keep all records as required by §§ 63.3512 and 63.3513. As part of the Notification of Compliance Status required by § 63.3510, you must identify the coating operation(s) for which you used the emission rate with add-on controls option and submit a statement that the coating operation(s) was in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in § 63.3490, and you achieved the operating limits required by § 63.3492 and the work practice standards required by § 63.3493.

(n) *Alternative calculation of overall subcategory emission limit.* Alternatively, if your affected source applies coatings in more than one coating type segment within a subcategory, you may calculate an overall HAP emission limit for the subcategory using Equation 4 of § 63.3531. If you use this approach, you must limit organic HAP emissions to the atmosphere to the OSEL specified by Equation 4 of § 63.3531 during each 12-month compliance period. You must use the OSEL determined by Equation 4 of § 63.3531 throughout the 12-month compliance period and may not switch between compliance with individual coating type limits and an OSEL. If you follow this approach, you may not include coatings in different subcategories in determining your OSEL. You must keep all records as required by §§ 63.3512 and 63.3513. As part of the Notification of Compliance Status required by § 63.3510, you must identify the subcategory for which you used a calculated OSEL and submit a statement that the coating operation(s) was in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate for the subcategory was less than or equal to the OSEL determined according to this section.

§ 63.3542 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance with the applicable emission limit in § 63.3490, the organic HAP emission rate for each compliance period, determined according to the procedures in § 63.3541, must be equal to or less than the applicable emission

limit in § 63.3490. Alternatively, if you calculate an OSEL for all coating type segments within a subcategory according to § 63.3531(i), the organic HAP emission rate for the subcategory for each compliance period must be less than or equal to the calculated OSEL. You must use the calculated OSEL throughout each compliance period. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in § 63.3540 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in § 63.3541 on a monthly basis using data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in § 63.3490, that is a deviation from the emission limitation for that compliance period and must be reported as specified in §§ 63.3510(b)(6) and 63.3511(a)(7).

(c) You must demonstrate continuous compliance with each operating limit required by § 63.3492 that applies to you as specified in Table 4 to this subpart.

(1) If an operating parameter is out of the allowed range specified in Table 4 to this subpart, this is a deviation from the operating limit that must be reported as specified in §§ 63.3510(b)(6) and 63.3511(a)(7).

(2) If an operating parameter deviates from the operating limit specified in Table 4 to this subpart, then you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device, and the use of these data has been approved by the Administrator. For the purposes of completing the compliance calculations specified in § 63.3541(h), you must treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation as indicated in Equation 1 of § 63.3541.

(d) You must meet the requirements for bypass lines in § 63.3547(b) for controlled coating operations for which you do not conduct liquid-liquid material balances. If any bypass line is opened and emissions are diverted to the atmosphere when the coating operation is running, this is a deviation that must be reported as specified in §§ 63.3510(b)(6) and 63.3511(a)(7). For the purposes of completing the compliance calculations specified in § 63.3541(h), you must treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation as indicated in Equation 1 of § 63.3541.

(e) You must demonstrate continuous compliance with the work practice standards in § 63.3493. If you did not develop a work practice plan or you did not implement the plan or you did not keep the records required by § 63.3512(j)(8), that is a deviation from the work practice standards that must be reported as specified in §§ 63.3510(b)(6) and 63.3511(a)(7).

(f) As part of each semiannual compliance report required in § 63.3511, you must identify the coating operation(s) for which you used the emission rate with add-on controls option. If there were no deviations from the emission limitations, submit a statement that you were in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in § 63.3490, and you achieved the operating limits required by § 63.3492 and the work practice standards required by § 63.3493 during each compliance period.

(g) During periods of startup, shutdown, or malfunction of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency, you must operate in accordance with the SSMP required by § 63.3500(c).

(h) Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the SSMP. The Administrator will determine whether deviations that occur during a period you identify as a startup, shutdown, or malfunction are violations according to the provisions in § 63.6(e).

(i) You must maintain records as specified in §§ 63.3512 and 63.3513.

§ 63.3543 What are the general requirements for performance tests?

(a) You must conduct each performance test required by § 63.3540 according to the requirements in § 63.7(e)(1) and under the conditions in this section unless you obtain a waiver of the performance test according to the provisions in § 63.7(h).

(1) *Representative coating operation operating conditions.* You must conduct the performance test under representative operating conditions for the coating operation. Operations during periods of startup, shutdown, or malfunction and during periods of nonoperation do not constitute representative conditions. You must record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation.

(2) *Representative emission capture system and add-on control device operating conditions.* You must conduct the performance test when the emission capture system and add-on control device are operating at a representative flow rate and the add-on control device is operating at a representative inlet concentration. You must record information that is necessary to document emission capture system and add-on control device operating conditions during the test and explain why the conditions represent normal operation.

(b) You must conduct each performance test of an emission capture system according to the requirements in § 63.3544. You must conduct each performance test of an add-on control device according to the requirements in § 63.3545.

§ 63.3544 How do I determine the emission capture system efficiency?

You must use the procedures and test methods in this section to determine capture efficiency as part of the performance test required by § 63.3540.

(a) *Assuming 100 percent capture efficiency.* You may assume the capture system efficiency is 100 percent if both of the conditions in paragraphs (a)(1) and (2) of this section are met:

(1) The capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and directs all the exhaust gases from the enclosure to an add-on control device.

(2) All coatings and thinners used in the coating operation are applied within the capture system, and coating solvent flash-off, curing, and drying occurs within the capture system. For example, the criterion is not met if parts enter the open shop environment when being moved between a spray booth and a curing oven.

(b) *Measuring capture efficiency.* If the capture system does not meet both of the criteria in paragraphs (a)(1) and (2) of this section, then you must use one of the three protocols described in

paragraphs (c), (d), and (e) of this section to measure capture efficiency. The capture efficiency measurements use TVH capture efficiency as a surrogate for organic HAP capture efficiency. For the protocols in paragraphs (c) and (d) of this section, the capture efficiency measurement must consist of three test runs. Each test run must be at least 3 hours duration or the length of a production run, whichever is longer, up to 8 hours. For the purposes of this test, a production run means the time required for a single part to go from the beginning to the end of production, which includes surface preparation activities and drying or curing time.

(c) *Liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* The liquid-to-uncaptured-gas protocol compares the mass of liquid TVH in materials used in the coating operation to the mass of TVH emissions not captured by the emission capture system. Use a TTE or a building enclosure and the procedures in paragraphs (c)(1) through (6) of this section to measure emission capture system efficiency using the liquid-to-uncaptured-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings and thinners are applied and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions for routing to an add-on control device, such as the entrance and exit areas of an oven or spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a TTE or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204A or 204F of appendix M to 40 CFR part 51 to determine the mass fraction of TVH liquid input from each coating and thinner used in the coating operation during each capture efficiency test run. To make the determination, substitute TVH for each occurrence of the term volatile organic compounds (VOC) in the methods.

(3) Use Equation 1 of this section to calculate the total mass of TVH liquid input from all the coatings and thinners used in the coating operation during each capture efficiency test run.

$$TVH_{used} = \sum_{i=1}^{n} (TVH_i)(Vol_i)(D_i) \qquad \text{(Eq. 1)}$$

Where:

TVH_{used} = Total mass of liquid TVH in materials used in the coating operation during the capture efficiency test run, kg.

TVH_i = Mass fraction of TVH in coating or thinner, i, that is used in the coating operation during the capture efficiency test run, kg TVH per kg material.

Vol_i = Total volume of coating or thinner, i, used in the coating operation during the capture efficiency test run, liters.

D_i = Density of coating or thinner, i, kg material per liter material.

n = Number of different coatings and thinners used in the coating operation during the capture efficiency test run.

(4) Use Method 204D or 204E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system; they are measured as they exit the TTE or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D of appendix M to 40 CFR part 51 if the enclosure is a TTE.

(ii) Use Method 204E of appendix M to 40 CFR part 51 if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure other than the coating operation for which capture efficiency is being determined must be shut down but all fans and blowers must be operating normally.

(5) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 2 of this section.

$$CE = \frac{(TVH_{used} - TVH_{uncaptured})}{TVH_{used}} \times 100 \qquad \text{(Eq. 2)}$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

TVH_{used} = Total mass of liquid TVH used in the coating operation during the capture efficiency test run, kg.

$TVH_{uncaptured}$ = Total mass of TVH that is not captured by the emission capture system and that exits from the TTE or building enclosure during the capture efficiency test run, kg, determined according to paragraph (c)(4) of this section.

(6) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(d) *Gas-to-gas protocol using a temporary total enclosure or a building enclosure.* The gas-to-gas protocol compares the mass of TVH emissions captured by the emission capture system to the mass of TVH emissions not captured. Use a TTE or a building enclosure and the procedures in paragraphs (d)(1) through (5) of this section to measure emission capture system efficiency using the gas-to-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings and thinners are applied and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions generated by the coating operation for routing to an add-on control device, such as the entrance and exit areas of an oven or a spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a TTE or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204B or 204C of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH

emissions captured by the emission capture system during each capture efficiency test run as measured at the inlet to the add-on control device. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) The sampling points for Method 204B or 204C of appendix M to 40 CFR part 51 measurement must be upstream from the add-on control device and must represent total emissions routed from the capture system and entering the add-on control device.

(ii) If multiple emission streams from the capture system enter the add-on control device without a single common duct, then the emissions entering the add-on control device must be simultaneously measured in each duct, and the total emissions entering the add-on control device must be determined.

(3) Use Method 204D or 204E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system; they are measured as they exit the TTE or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D of appendix M to 40 CFR part 51 if the enclosure is a TTE.

(ii) Use Method 204E of appendix M to 40 CFR part 51 if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down but all fans and blowers must be operating normally.

(4) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 3 of this section.

$$CE = \frac{TVH_{captured}}{\left(TVH_{captured} + TVH_{uncaptured}\right)} \times 100 \qquad \text{(Eq. 3)}$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

$TVH_{captured}$ = Total mass of TVH captured by the emission capture system as measured at the inlet to the add-on control device during the emission capture efficiency test run, kg, determined according to paragraph (d)(2) of this section.

$TVH_{uncaptured}$ = Total mass of TVH that is not captured by the emission capture system and that exits from the TTE or building enclosure during the capture efficiency test run, kg, determined according to paragraph (d)(3) of this section.

(5) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(e) *Alternative capture efficiency protocol.* As an alternative to the procedures specified in paragraphs (c) and (d) of this section, you may determine capture efficiency using any other capture efficiency protocol and test methods that satisfy the criteria of either the DQO or LCL approach as described in appendix A to subpart KK of this part.

§ 63.3545 How do I determine the add-on control device emission destruction or removal efficiency?

You must use the procedures and test methods in this section to determine the add-on control device emission destruction or removal efficiency as part of the performance test required by § 63.3540. You must conduct three test runs as specified in § 63.7(e)(3) and each test run must last at least 1 hour.

(a) For all types of add-on control devices, use the test methods specified in paragraphs (a)(1) through (5) of this section.

(1) Use Method 1 or 1A of appendix A to 40 CFR part 60, as appropriate, to select sampling sites and velocity traverse points.

(2) Use Method 2, 2A, 2C, 2D, 2F, or 2G of appendix A to 40 CFR part 60, as appropriate, to measure gas volumetric flow rate.

(3) Use Method 3, 3A, or 3B of appendix A to 40 CFR part 60, as appropriate, for gas analysis to determine dry molecular weight. You may also use as an alternative to Method 3B the manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas in ANSI/ASME PTC 19.10–1981, "Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]" (incorporated by reference, see § 63.14).

(4) Use Method 4 of appendix A to 40 CFR part 60 to determine stack gas moisture.

(5) Methods for determining gas volumetric flow rate, dry molecular weight, and stack gas moisture must be performed, as applicable, during each test run.

(b) Measure total gaseous organic mass emissions as carbon at the inlet and outlet of the add-on control device simultaneously using either Method 25 or 25A of appendix A to 40 CFR part 60 as specified in paragraphs (b)(1) through (5) of this section. You must use the same method for both the inlet and outlet measurements.

(1) Use Method 25 of appendix A to 40 CFR part 60 if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be more than 50 ppm at the control device outlet.

(2) Use Method 25A of appendix A to 40 CFR part 60 if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be 50 ppm or less at the control device outlet.

(3) Use Method 25A of appendix A to 40 CFR part 60 if the add-control device is not an oxidizer.

(4) You may use Method 18 of appendix A to 40 CFR part 60 to subtract methane emissions from measured total gaseous organic mass emissions as carbon.

(5) Alternatively, any other test method or data that have been validated according to the applicable procedures in Method 301 of 40 CFR part 63, appendix A, and approved by the Administrator, may be used.

(c) If two or more add-on control devices are used for the same emission stream, then you must measure emissions at the outlet of each device. For example, if one add-on control device is a concentrator with an outlet for the high-volume dilute stream that has been treated by the concentrator, and a second add-on control device is an oxidizer with an outlet for the low-volume concentrated stream that is treated with the oxidizer, you must measure emissions at the outlet of the oxidizer and the high-volume dilute stream outlet of the concentrator.

(d) For each test run, determine the total gaseous organic emissions mass flow rates for the inlet and the outlet of the add-on control device using Equation 1 of this section. If there is more than one inlet or outlet to the add-on control device, you must calculate the total gaseous organic mass flow rate

using Equation 1 of this section for each inlet and each outlet and then total all of the inlet emissions and total all of the outlet emissions.

$$M_f = Q_{sd} C_c (12) (0.0416) \left(10^{-6}\right) \qquad \text{(Eq. 1)}$$

Where:

M_f = Total gaseous organic emissions mass flow rate, kg per hour (kg/h).

C_c = Concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, ppmvd.

Q_{sd} = Volumetric flow rate of gases entering or exiting the add-on control device, as determined by Method 2, 2A, 2C, 2D, 2F, or 2G, dry standard cubic meters/hour (dscm/h).

0.0416 = Conversion factor for molar volume, kg-moles per cubic meter (mol/m^3) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg)).

Note: If M_f is calculated in English units (lb/h), the conversion factor for molar volume is 0.00256 lb-moles per cubic foot (mol/ft^3).

(e) For each test run, determine the add-on control device organic emissions destruction or removal efficiency, using Equation 2 of this section.

$$DRE = 100 \times \frac{M_{fi} - M_{fo}}{M_{fi}} \qquad \text{(Eq. 2)}$$

Where:

DRE = Organic emissions destruction or removal efficiency of the add-on control device, percent.

M_{fi} = Total gaseous organic emissions mass flow rate at the inlet(s) to the add-on control device, using Equation 1 of this section, kg/h.

M_{fo} = Total gaseous organic emissions mass flow rate at the outlet(s) of the add-on control device, using Equation 1 of this section, kg/h.

(f) Determine the emission destruction or removal efficiency of the add-on control device as the average of the efficiencies determined in the three test runs and calculated in Equation 2 of this section.

§ 63.3546 How do I establish the emission capture system and add-on control device operating limits during the performance test?

During the performance test required by § 63.3540 and described in §§ 63.3543, 63.3544, and 63.3545, you must establish the operating limits required by § 63.3492 unless you have received approval for alternative monitoring and operating limits under § 63.8(f) as specified in § 63.3492.

(a) *Thermal oxidizers.* If your add-on control device is a thermal oxidizer, establish the operating limits according to paragraphs (a)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.

(2) Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. That average combustion temperature is the minimum operating limit for your thermal oxidizer.

(b) *Catalytic oxidizers.* If your add-on control device is a catalytic oxidizer, establish the operating limits according to either paragraphs (b)(1) and (2) or paragraphs (b)(3) and (4) of this section.

(1) During the performance test, you must monitor and record the temperature at the inlet to the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average temperature at the inlet to the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. The average temperature difference is the minimum operating limit for your catalytic oxidizer.

(3) As an alternative to monitoring the temperature difference across the catalyst bed, you may monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in paragraph (b)(4) of this section. During the performance test, you must monitor and record the temperature at the inlet to the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the performance test to calculate and record the average temperature at the inlet to the catalyst bed during the performance test. That is the minimum operating limit for your catalytic oxidizer.

(4) You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s) for which you elect to monitor according to paragraph (b)(3) of this section. The plan must address, at a minimum, the elements specified in paragraphs (b)(4)(i) through (iii) of this section.

(i) Annual sampling and analysis of the catalyst activity (*i.e*, conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures.

(ii) Monthly inspection of the oxidizer system, including the burner assembly and fuel supply lines for problems and, as necessary, adjust the equipment to assure proper air-to-fuel mixtures.

(iii) Annual internal and monthly external visual inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found, you must take corrective action consistent with the manufacturer's recommendations and conduct a new performance test to determine destruction efficiency according to § 63.3545.

(c) *Regenerative oxidizers.* If your add-on control device is a regenerative oxidizer, establish operating limits according to paragraphs (c)(1) and (2) of this section.

(1) You must establish all applicable operating limits according to paragraphs (a) and (b) of this section.

(2) You must submit a valve inspection plan that documents the steps taken to minimize the amount of leakage during the regenerative process. This plan can include, but is not limited to, routine inspection of key parameters of the valve operating system (*e.g.*, solenoid valve operation, air pressure, hydraulic pressure); visual inspection of the valves during internal inspections; and/or actual testing of the emission stream for leakage.

(d) *Carbon adsorbers.* If your add-on control device is a carbon adsorber, establish the operating limits according to paragraphs (d)(1) and (2) of this section.

(1) You must monitor and record the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle, and the carbon bed temperature after each carbon bed regeneration and cooling cycle for the regeneration cycle either immediately preceding or immediately following the performance test.

(2) The operating limits for your carbon adsorber are the minimum total desorbing gas mass flow recorded during the regeneration cycle, and the maximum carbon bed temperature recorded after the cooling cycle.

(e) *Condensers.* If your add-on control device is a condenser, establish the operating limits according to paragraphs (e)(1) and (2) of this section.

(1) During the performance test, monitor and record the condenser outlet (product side) gas temperature at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average condenser outlet (product side) gas temperature maintained during the performance test. This average condenser outlet gas temperature is the maximum operating limit for your condenser.

(f) *Concentrators.* If your add-on control device includes a concentrator, you must establish operating limits for the concentrator according to paragraphs (f)(1) through (7) of this section.

(1) During the performance test, monitor and record the inlet temperature to the desorption/reactivation zone of the concentrator at least once every 15 minutes during each of the three runs of the performance test.

(2) Use the data collected during the performance test to calculate and record the average temperature. This is the minimum operating limit for the desorption/reactivation zone inlet temperature.

(3) During the performance test, monitor and record an indicator(s) of performance for the desorption/reactivation fan operation at least once every 15 minutes during each of the three runs of the performance test. The indicator can be speed in revolutions per minute (rpm), power in amps, static pressure, or flow rate.

(4) Establish a suitable range for the parameter(s) selected based on the system design specifications, historical data, and/or data obtained concurrent with an emissions performance test. This is the operation limit range for the desorption/reactivation fan operation.

(5) During the performance test, monitor the rotational speed of the concentrator at least once every 15 minutes during each of the three runs of the performance test.

(6) Use the data collected during the performance test to calculate and record the average rotational speed. This is the minimum operating limit for the rotational speed of the concentrator. However, the indicator range for the rotational speed may be changed if an engineering evaluation is conducted and a determination made that the change in speed will not affect compliance with the emission limit.

(7) Develop and implement an inspection and maintenance plan for the concentrator(s) that you elect to monitor according to paragraph (f) of this section. The plan must include, at a minimum, annual sampling and analysis of the absorbent material (*i.e.*, adsorbent activity) following the manufacturer's recommended procedures.

(g) *Emission capture systems.* For each capture device that is not part of a PTE that meets the criteria of § 63.3544(a), establish an operating limit for either the gas volumetric flow rate or duct static pressure, as specified in paragraphs (g)(1) and (2) of this section. The operating limit for a PTE is specified in Table 4 to this subpart.

(1) During the capture efficiency determination required by § 63.3540 and described in §§ 63.3543 and 63.3544, you must monitor and record either the gas volumetric flow rate or the duct static pressure for each separate capture device in your emission capture system at least once every 15 minutes during each of the three test runs at a point in the duct between the capture device and the add-on control device inlet.

(2) Calculate and record the average gas volumetric flow rate or duct static pressure for the three test runs for each capture device. This average gas volumetric flow rate or duct static pressure is the minimum operating limit for that specific capture device.

§ 63.3547 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?

(a) *General.* You must install, operate, and maintain each CPMS specified in paragraphs (c), (e), (f), and (g) of this section according to paragraphs (a)(1) through (6) of this section. You must install, operate, and maintain each CPMS specified in paragraphs (b) and (d) of this section according to paragraphs (a)(3) through (5) of this section.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four equally spaced successive cycles of CPMS operation in 1 hour.

(2) You must determine the average of all recorded readings for each successive 3-hour period of the emission capture system and add-on control device operation.

(3) You must record the results of each inspection, calibration, and validation check of the CPMS.

(4) You must maintain the CPMS at all times and have available necessary parts for routine repairs of the monitoring equipment.

(5) You must operate the CPMS and collect emission capture system and add-on control device parameter data at all times that a controlled coating operation is operating, except during monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, if applicable, calibration checks and required zero and span adjustments).

(6) You must not use emission capture system or add-on control device parameter data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities when calculating data averages. You must use all the data collected during all other periods in calculating the data averages for determining compliance with the emission capture system and add-on control device operating limits.

(7) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the CPMS to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system is out of control and data are not available for required calculations is a deviation from the monitoring requirements.

(b) *Capture system bypass line.* You must meet the requirements of paragraph (b)(1) or (2) of this section for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

(1) Properly install, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. The flow indicator shall be installed at the entrance to any bypass line.

(2) Secure the bypass line valve in the nondiverting position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure the valve is maintained in the nondiverting position and the vent stream is not diverted through the bypass line.

(c) *Thermal oxidizers and catalytic oxidizers.* If you are using a thermal oxidizer or catalytic oxidizer as an add-on control device (including those used with concentrators or with carbon adsorbers to treat desorbed concentrate streams), you must comply with the requirements in paragraphs (c)(1) through (3) of this section.

(1) For a thermal oxidizer, install a gas temperature monitor in the firebox of the thermal oxidizer or in the duct immediately downstream of the firebox before any substantial heat exchange occurs.

(2) For a catalytic oxidizer, install a gas temperature monitor according to paragraph (c)(2)(i) or (ii) of this section.

(i) If you establish operating limits according to § 63.3546(b)(1) and (2), then you must install the gas temperature monitors both upstream and downstream of the catalyst bed. The temperature monitors must be in the gas stream at the inlet to and the outlet of the catalyst bed to measure the temperature difference across the bed.

(ii) If you establish operating limits according to § 63.3546(b)(3) and (4), then you must install a gas temperature monitor upstream of the catalyst bed. The temperature monitor must be in the gas stream at the inlet to the catalyst bed to measure the temperature.

(3) For all thermal oxidizers and catalytic oxidizers, you must meet the requirements in paragraphs (a) and (c)(3)(i) through (ii) of this section for each gas temperature monitoring device.

(i) Locate the temperature sensor in a position that provides a representative temperature.

(ii) Use a temperature sensor with a minimum accuracy of ±1.2 degrees Celsius or ±1 percent of the temperature value in degrees Celsius, whichever is larger.

(d) *Carbon adsorbers.* If you are using a carbon adsorber as an add-on control device, you must monitor the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle, the carbon bed temperature after each regeneration and cooling cycle, and comply with paragraphs (a)(3) through (5) and (d)(1) and (2) of this section.

(1) The regeneration desorbing gas mass flow monitor must be an integrating device having an accuracy of ±10 percent capable of recording the total regeneration desorbing gas mass flow for each regeneration cycle.

(2) The carbon bed temperature monitor must have a minimum accuracy of ±1.2 degrees Celsius or ±1 percent of the temperature value in degrees Celsius, whichever is larger, and must be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.

(e) *Condensers.* If you are using a condenser, you must monitor the condenser outlet (product side) gas temperature and comply with paragraphs (a) and (e)(1) and (2) of this section.

(1) The gas temperature monitor must have a minimum accuracy of ±1 percent of the temperature recorded in degrees Celsius or ±1.2 degrees Celsius, whichever is greater.

(2) The temperature monitor must provide a continuous gas temperature record.

(f) *Concentrators.* If you are using a concentrator such as a zeolite wheel or rotary carbon bed concentrator, you must comply with the requirements in paragraphs (f)(1) through (4) of this section.

(1) You must install a temperature monitor at the inlet to the desorption/reactivation zone of the concentrator. The temperature monitor must meet the requirements in paragraphs (a) and (c)(3) of this section.

(2) You must select an indicator(s) of performance of the desorption/reactivation fan operation, such as speed, power, static pressure, or flow rate.

(3) You must monitor the rotational speed of the concentrator in revolutions per hour.

(4) You must verify the performance of the adsorbent material by examining representative samples and testing adsorbent activity per the manufacturer's recommendations.

Compliance Requirements for the Control Efficiency/Outlet Concentration Option

§ 63.3550 By what date must I conduct performance tests and other initial compliance demonstrations?

(a) *New and reconstructed affected sources.* For a new or reconstructed source, you must meet the requirements of paragraphs (a)(1) through (4) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in § 63.3483. You must conduct a performance test of each capture system and add-on control device according to §§ 63.3553, 63.3554, and 63.3555 and establish the operating limits required by § 63.3492 no later than 180 days after the applicable compliance date specified in § 63.3483.

(2) You must develop and begin implementing the work practice plan required by § 63.3493 no later than the compliance date specified in § 63.3483.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3551. The initial compliance period begins on the applicable compliance date specified in § 63.3483 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to § 63.3553, 63.3554, and 63.3555; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.3557; and documentation of whether you developed and implemented the work practice plan required by § 63.3493.

(4) You do not need to comply with the operating limits for the emission capture system and add-on control device required by § 63.3492 until after you have completed the performance tests specified in paragraph (a)(1) of this section. Instead, you must maintain a log detailing the operation and maintenance of the emission capture system, add-on control device, and continuous parameter monitors during the period between the compliance date and the performance test. You must begin complying with the operating limits on the date you complete the performance tests specified in paragraph (a)(1) of this section.

(b) *Existing affected sources.* For an existing affected source, you must meet the requirements of paragraphs (b)(1) through (3) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in § 63.3483.

(2) You must develop and begin implementing the work practice plan required by § 63.3493 no later than the compliance date specified in § 63.3483.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3551. The initial compliance period begins on the applicable compliance date specified in § 63.3483 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§ 63.3553, 63.3554, and 63.3555; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.3557; and

documentation of whether you developed and implemented the work practice plan required by § 63.3493.

§ 63.3551 How do I demonstrate initial compliance?

(a) You may use the control efficiency/outlet concentration option for any coating operation, for any group of coating operations within a subcategory or coating type segment, or for all of the coating operations within a subcategory or coating type segment. You must use the compliant material option, the emission rate without add-on controls option, or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use the control efficiency/outlet concentration option. To demonstrate initial compliance, the coating operation(s) for which you use the control efficiency/outlet concentration option must meet the applicable levels of emission reduction in § 63.3490. You must conduct a separate initial compliance demonstration for each one and two-piece draw and iron can body coating, sheetcoating, three-piece can body assembly coating, and end coating affected source. You must meet all the requirements of this section to demonstrate initial compliance with the emission limitations. When calculating the organic HAP emission rate according to this section, do not include any coatings or thinners used on coating operations for which you use the compliant material option, the emission rate without add-on controls option, or the emission rate with add-on controls option. You do not need to redetermine the mass of organic HAP in coatings or thinners that have been reclaimed onsite and reused in the coating operation(s) for which you use the emission rate with add-on controls option.

(b) *Compliance with operating limits.* You must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by § 63.3492, using the procedures specified in §§ 63.3556 and 63.3557.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plan required by § 63.3493 during the initial compliance period as specified in § 63.3512.

(d) *Compliance demonstration.* To demonstrate initial compliance, the coating operation(s) for which you use the control efficiency/outlet concentration option must meet the applicable levels of emission reduction in § 63.3490. You must keep all records applicable to the control efficiency/outlet concentration option as required by §§ 63.3512 and 63.3513. As part of the Notification of Compliance Status required by § 63.3510, you must identify the coating operation(s) for which you used the control efficiency/outlet concentration option and submit a statement that the coating operation(s) was in compliance with the emission limitations during the initial compliance period because you achieved the operating limits required by § 63.3492 and the work practice standards required by § 63.3493.

§ 63.3552 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance with the emission limitations using the control efficiency/outlet concentration option, the organic HAP emission rate for each compliance period must be equal to or less than 20 ppmvd or must be reduced by the amounts specified in § 63.3490. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in § 63.3550 is the end of a compliance period consisting of that month and the preceding 11 months.

(b) You must demonstrate continuous compliance with each operating limit required by § 63.3492 that applies to you, as specified in Table 4 to this subpart. If an operating parameter is out of the allowed range specified in Table 4 to this subpart, this is a deviation from the operating limit that must be reported as specified in §§ 63.3510(b)(6) and 63.3511(a)(7).

(c) You must meet the requirements for bypass lines in § 63.3557(b). If any bypass line is opened and emissions are diverted to the atmosphere when the coating operation is running, this is a deviation that must be reported as specified in §§ 63.3510(b)(6) and 63.3511(a)(7). For purposes of demonstrating compliance, you must treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation.

(d) You must demonstrate continuous compliance with the work practice standards in § 63.3493. If you did not develop a work practice plan or you did not implement the plan or you did not keep the records required by § 63.3512(j)(8), this is a deviation from the work practice standards that must be reported as specified in §§ 63.3510(b)(6) and 63.3511(a)(7).

(e) As part of each semiannual compliance report required in § 63.3511, you must identify the coating operation(s) for which you used the control efficiency/outlet concentration option. If there were no deviations from the operating limits or work practice standards, submit a statement that you were in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than 20 ppmvd or was reduced by the amount specified in § 63.3490, and you achieved the operating limits required by § 63.3492 and the work practice standards required by § 63.3493 during each compliance period.

(f) During periods of startup, shutdown, or malfunctions of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency, you must operate in accordance with the SSMP required by § 63.3500(c).

(g) Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the SSMP. The Administrator will determine whether deviations that occur during a period you identify as a startup, shutdown, or malfunction are violations, according to the provisions in § 63.6(e).

(h) You must maintain records applicable to the control efficiency/outlet concentration option as specified in §§ 63.3512 and 63.3513.

§ 63.3553 What are the general requirements for performance tests?

(a) You must conduct each performance test required by § 63.3550 according to the requirements of § 63.7(e)(1) and under the conditions in this section unless you obtain a waiver of the performance test according to the provisions in § 63.7(h).

(1) *Representative coating operating conditions.* You must conduct the performance test under representative operating conditions for the coating operation(s). Operations during periods of startup, shutdown, or malfunction and during periods of nonoperation do not constitute representative conditions. You must record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation.

(2) *Representative emission capture system and add-on control device*

operating conditions. You must conduct the performance test when the emission capture system and add-on control device are operating at a representative flow rate, and the add-on control device is operating at a representative inlet concentration. You must record information that is necessary to document emission capture system and add-on control device operating conditions during the test and explain why the conditions represent normal operation.

(b) You must conduct each performance test of an emission capture system according to the requirements in § 63.3554. You must conduct each performance test of an add-on control device according to the requirements in § 63.3555.

§ 63.3554 How do I determine the emission capture system efficiency?

The capture efficiency of your emission capture system must be 100 percent to use the control efficiency/outlet concentration option. You may assume the capture system efficiency is 100 percent if both of the conditions in paragraphs (a) and (b) of this section are met.

(a) The capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and directs all the exhaust gases from the enclosure to an add-on control device.

(b) All coatings and thinners used in the coating operation are applied within the capture system, and coating solvent flash-off, curing, and drying occurs within the capture system. This criterion is not met if parts enter the open shop environment when being moved between a spray booth and a curing oven.

§ 63.3555 How do I determine the outlet THC emissions and add-on control device emission destruction or removal efficiency?

You must use the procedures and test methods in this section to determine either the outlet THC emissions or add-on control device emission destruction or removal efficiency as part of the performance test required by § 63.3550. You must conduct three test runs as specified in § 63.7(e)(3), and each test run must last at least 1 hour.

(a) For all types of add-on control devices, use the test methods specified in paragraphs (a)(1) through (5) of this section.

(1) Use Method 1 or 1A of appendix A to 40 CFR part 60, as appropriate, to select sampling sites and velocity traverse points.

(2) Use Method 2, 2A, 2C, 2D, 2F, or 2G of appendix A to 40 CFR part 60, as appropriate, to measure gas volumetric flow rate.

(3) Use Method 3, 3A, or 3B of appendix A to 40 CFR part 60, as appropriate, for gas analysis to determine dry molecular weight. You may also use as an alternative to Method 3B, the manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas in ANSI/ASME PTC 19.10–1981, "Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]" (incorporated by reference, see § 63.14).

(4) Use Method 4 of appendix A to 40 CFR part 60 to determine stack gas moisture.

(5) Methods for determining gas volumetric flow rate, dry molecular weight, and stack gas moisture must be performed, as applicable, during each test run.

(b) Measure total gaseous organic mass emissions as carbon at the inlet and outlet of the add-on control device simultaneously using either Method 25 or 25A of appendix A to 40 CFR part 60 as specified in paragraphs (b)(1) through (3) of this section. You must use the same method for both the inlet and outlet measurements.

(1) Use Method 25 of appendix A to 40 CFR part 60 if the add-on control device is an oxidizer, and you expect the total gaseous organic concentration as carbon to be more than 50 ppm at the control device outlet.

(2) Use Method 25A of appendix A to 40 CFR part 60 if the add-on control device is an oxidizer, and you expect the total gaseous organic concentration as carbon to be 50 ppm or less at the control device outlet.

(3) Use Method 25A of appendix A to 40 CFR part 60 if the add-on control device is not an oxidizer.

(4) You may use Method 18 of appendix A to 40 CFR part 60 to subtract methane emissions from measured total gaseous organic mass emissions as carbon.

(5) Alternatively, any other test method or data that have been validated according to the applicable procedures in Method 301 of 40 CFR part 63, appendix A, and approved by the Administrator may be used.

(c) If two or more add-on control devices are used for the same emission stream, then you must measure emissions at the outlet of each device. For example, if one add-on control device is a concentrator with an outlet for the high-volume dilute stream that has been treated by the concentrator and a second add-on control device is an oxidizer with an outlet for the low-volume, concentrated stream that is treated with the oxidizer, you must measure emissions at the outlet of the oxidizer and the high-volume dilute stream outlet of the concentrator.

(d) For each test run, determine the total gaseous organic emissions mass flow rates for the inlet and outlet of the add-on control device using Equation 1 of this section. If there is more than one inlet or outlet to the add-on control device, you must calculate the total gaseous organic mass flow rate using Equation 1 of this section for each inlet and each outlet and then total all of the inlet emissions and total all of the outlet emissions.

$$M_f = Q_{sd} C_c (12) (0.0416) \left(10^{-6}\right) \qquad \text{(Eq. 1)}$$

Where:

M_f = Total gaseous organic emissions mass flow rate, kg/h.

C_c = The concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, ppmvd.

Q_{sd} = Volumetric flow rate of gases entering or exiting the add-on control device, as determined by Method 2, 2A, 2C, 2D, 2F, or 2G, dry standard cubic meters/hour (dscm/h).

0.0416 = Conversion factor for molar volume, kg-moles per cubic meter (mol/m^3) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg)).

Note: If M_f is calculated in English units (lb/h), the conversion factor for molar volume is 0.00256 lb-moles per cubic foot (mol/ft^3).

(e) For each test run, determine the add-on control device organic emissions destruction or removal efficiency using Equation 2 of this section.

$$DRE = 100 \times \frac{M_{fi} - M_{fo}}{M_{fi}} \qquad \text{(Eq. 2)}$$

Where:

DRE = Organic emissions destruction or removal efficiency of the add-on control device, percent.

M_{fi} = Total gaseous organic emissions mass flow rate at the inlet(s) to the

add-on control device, using Equation 1 of this section, kg/h.

M_{fo} = Total gaseous organic emissions mass flow rate at the outlet(s) of the add-on control device, using Equation 1 of this section, kg/h.

(f) Determine the emission destruction or removal efficiency of the add-on control device as the average of the efficiencies determined in the three test runs and calculated in Equation 2 of this section.

§ 63.3556 How do I establish the emission capture system and add-on control device operating limits during the performance test?

During the performance test required by § 63.3550 and described in §§ 63.3553, 63.3554, and 63.3555, you must establish the operating limits required by § 63.3492 according to this section, unless you have received approval for alternative monitoring and operating limits under § 63.8(f) as specified in § 63.3492.

(a) *Thermal oxidizers.* If your add-on control device is a thermal oxidizer, establish the operating limits according to paragraphs (a)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.

(2) Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. That average combustion temperature is the minimum operating limit for your thermal oxidizer.

(b) *Catalytic oxidizers.* If your add-on control device is a catalytic oxidizer, establish the operating limits according to either paragraphs (b)(1) and (2) or paragraphs (b)(3) and (4) of this section.

(1) During the performance test, you must monitor and record the temperature at the inlet to the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average temperature at the inlet to the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. The average temperature difference is the minimum operating limit for your catalytic oxidizer.

(3) As an alternative to monitoring the temperature difference across the catalyst bed, you may monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in paragraph (b)(4) of this section. During the performance test, you must monitor and record the temperature at the inlet to the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the performance test to calculate and record the average temperature at the inlet to the catalyst bed during the performance test. That is the minimum operating limit for your catalytic oxidizer.

(4) You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s) for which you elect to monitor according to paragraph (b)(3) of this section. The plan must address, at a minimum, the elements specified in paragraphs (b)(4)(i) through (iii) of this section.

(i) Annual sampling and analysis of the catalyst activity (*i.e.*, conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures.

(ii) Monthly inspection of the oxidizer system, including the burner assembly and fuel supply lines for problems and, as necessary, adjust the equipment to assure proper air-to-fuel mixtures.

(iii) Annual internal and monthly external visual inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found, you must take corrective action consistent with the manufacturer's recommendations and conduct a new performance test to determine destruction efficiency according to § 63.3555.

(c) *Regenerative oxidizers.* If your add-on control device is a regenerative oxidizer, establish operating limits according to paragraphs (c)(1) and (2) of this section.

(1) You must establish all applicable operating limits according to paragraphs (a) and (b) of this section.

(2) You must submit a valve inspection plan that documents the steps taken to minimize the amount of leakage during the regenerative process. This plan can include, but is not limited to, routine inspection of key parameters of the valve operating system (*e.g.*, solenoid valve operation, air pressure, hydraulic pressure), visual inspection of the valves during internal inspections, and/or actual testing of the emission stream for leakage.

(d) *Carbon adsorbers.* If your add-on control device is a carbon adsorber, establish the operating limits according to paragraphs (d)(1) and (2) of this section.

(1) You must monitor and record the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle, and the carbon bed temperature after each carbon bed regeneration and cooling cycle for the regeneration cycle either immediately preceding or immediately following the performance test.

(2) The operating limits for your carbon adsorber are the minimum total desorbing gas mass flow recorded during the regeneration cycle and the maximum carbon bed temperature recorded after the cooling cycle.

(e) *Condensers.* If your add-on control device is a condenser, establish the operating limits according to paragraphs (e)(1) and (2) of this section.

(1) During the performance test, monitor and record the condenser outlet (product side) gas temperature at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average condenser outlet (product side) gas temperature maintained during the performance test. This average condenser outlet gas temperature is the maximum operating limit for your condenser.

(f) *Concentrators.* If your add-on control device includes a concentrator, you must establish operating limits for the concentrator according to paragraphs (f)(1) through (7) of this section.

(1) During the performance test, monitor and record the inlet temperature to the desorption/reactivation zone of the concentrator at least once every 15 minutes during each of the three runs of the performance test.

(2) Use the data collected during the performance test to calculate and record the average temperature. This is the minimum operating limit for the desorption/reactivation zone inlet temperature.

(3) During the performance test, monitor and record an indicator(s) of performance for the desorption/reactivation fan operation at least once every 15 minutes during each of the three runs of the performance test. The indicator can be speed in rpm, power in amps, static pressure, or flow rate.

(4) Establish a suitable range for the parameter(s) selected based on the system design specifications, historical data, and/or data obtained concurrent with an emissions performance test. This is the operation limit range for the desorption/reactivation fan operation.

(5) During the performance test, monitor the rotational speed of the

concentrator at least once every 15 minutes during each of the three runs of the performance test.

(6) Use the data collected during the performance test to calculate and record the average rotational speed. This is the minimum operating limit for the rotational speed of the concentrator. However, the indicator range for the rotational speed may be changed if an engineering evaluation is conducted and a determination made that the change in speed will not affect compliance with the emission limit.

(7) Develop and implement an inspection and maintenance plan for the concentrator(s) that you elect to monitor according to paragraph (f) of this section. The plan must include, at a minimum, annual sampling and analysis of the absorbent material (*i.e.*, adsorbent activity) following the manufacturer's recommended procedures.

(g) *Emission capture systems.* For each capture device that is part of a PTE that meets the criteria of § 63.3554, the operating limit for a PTE is specified in Table 4 to this subpart.

§ 63.3557 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?

(a) *General.* You must install, operate, and maintain each CPMS specified in paragraphs (c), (e), (f), and (g) of this section according to paragraphs (a)(1) through (6) of this section. You must install, operate, and maintain each CPMS specified in paragraphs (b) and (d) of this section according to paragraphs (a)(3) through (5) of this section.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four equally spaced successive cycles of CPMS operation in 1 hour.

(2) You must determine the average of all recorded readings for each successive 3-hour period of the emission capture system and add-on control device operation.

(3) You must record the results of each inspection, calibration, and validation check of the CPMS.

(4) You must maintain the CPMS at all times and have available necessary parts for routine repairs of the monitoring equipment.

(5) You must operate the CPMS and collect emission capture system and add-on control device parameter data at all times that a controlled coating operation is operating, except during monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, if applicable, calibration checks and required zero and span adjustments).

(6) You must not use emission capture system or add-on control device parameter data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities when calculating data averages. You must use all the data collected during all other periods in calculating the data averages for determining compliance with the emission capture system and add-on control device operating limits.

(7) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the CPMS to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system is out of control and data are not available for required calculations is a deviation from the monitoring requirements.

(b) *Capture system bypass line.* You must meet the requirements of paragraph (b)(1) or (2) of this section for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

(1) Properly install, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. The flow indicator shall be installed at the entrance to any bypass line.

(2) Secure the bypass line valve in the nondiverting position with a car-seal or lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure the valve is maintained in the nondiverting position, and the vent stream is not diverted through the bypass line.

(c) *Thermal oxidizers and catalytic oxidizers.* If you are using a thermal oxidizer or catalytic oxidizer as an add-on control device (including those used with concentrators or with carbon adsorbers to treat desorbed concentrate streams), you must comply with the requirements in paragraphs (c)(1) through (3) of this section.

(1) For a thermal oxidizer, install a gas temperature monitor in the firebox of the thermal oxidizer or in the duct immediately downstream of the firebox before any substantial heat exchange occurs.

(2) For a catalytic oxidizer, install a gas temperature monitor according to paragraph (c)(2)(i) or (ii) of this section.

(i) If you establish operating limits according to § 63.3556(b)(1) and (2), then you must install the gas temperature monitors both upstream and downstream of the catalyst bed. The temperature monitors must be in the gas stream at the inlet to and the outlet of the catalyst bed to measure the temperature difference across the bed.

(ii) If you establish operating limits according to § 63.3556(b)(3) and (4), then you must install a gas temperature monitor upstream of the catalyst bed. The temperature monitor must be in the gas stream at the inlet to the catalyst bed to measure the temperature.

(3) For all thermal oxidizers and catalytic oxidizers, you must meet the requirements in paragraphs (a) and (c)(3)(i) through (ii) of this section for each gas temperature monitoring device.

(i) Locate the temperature sensor in a position that provides a representative temperature.

(ii) Use a temperature sensor with a minimum accuracy of ±1.2 degrees Celsius or ±1 percent of the temperature value in degrees Celsius, whichever is larger.

(d) *Carbon adsorbers.* If you are using a carbon adsorber as an add-on control device, you must monitor the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle, the carbon bed temperature after each regeneration and cooling cycle, and comply with paragraphs (a)(3) through (5) and (d)(1) and (2) of this section.

(1) The regeneration desorbing gas mass flow monitor must be an integrating device having an accuracy of ±10 percent capable of recording the total regeneration desorbing gas mass flow for each regeneration cycle.

(2) The carbon bed temperature monitor must have a minimum accuracy of ±1.2 degrees Celsius or ±1 percent of the temperature value in degrees Celsius, whichever is larger, and must be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.

(e) *Condensers.* If you are using a condenser, you must monitor the condenser outlet (product side) gas temperature and comply with paragraphs (a) and (e)(1) and (2) of this section.

(1) The gas temperature monitor must have a minimum accuracy of ±1.2 degrees Celsius or ±1 percent of the temperature value in degrees Celsius, whichever is larger.

(2) The temperature monitor must provide a continuous gas temperature record.

(f) *Concentrators.* If you are using a concentrator such as a zeolite wheel or rotary carbon bed concentrator, you must comply with the requirements in paragraphs (f)(1) through (4) of this section.

(1) You must install a temperature monitor at the inlet to the desorption/reactivation zone of the concentrator. The temperature monitor must meet the requirements in paragraphs (a) and (c)(3) of this section.

(2) You must select an indicator(s) of performance of the desorption/reactivation fan operation, such as speed, power, static pressure, or flow rate.

(3) You must monitor the rotational speed of the concentrator in revolutions per hour.

(4) You must verify the performance of the adsorbent material by examining representative samples and testing adsorbent activity per the manufacturer's recommendations.

Other Requirements and Information

§ 63.3560 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the United States Environmental Protection Agency (U.S. EPA), or a delegated authority such as your State, local, or tribal agency. If the Administrator has delegated authority to your State, local, or tribal agency, then that agency, in addition to the EPA, has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are listed in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the work practice standards in § 63.3493.

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.3561 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in 40 CFR 63.2, and in this section as follows:

Add-on control means an air pollution control device, such as a thermal oxidizer or carbon adsorber, that reduces pollution in an air stream by destruction or removal before discharge to the atmosphere.

Adhesive means any chemical substance that is applied for the purpose of bonding two surfaces together.

Aerosol can means any can into which a pressurized aerosol product is packaged.

Aseptic coating means any coating that must withstand high temperature steam, chemicals, or a combination of both used to sterilize food cans prior to filling.

Can body means a formed metal can, excluding the unattached end(s).

Can end means a can part manufactured from metal substrate equal to or thinner than 0.3785 millimeters (mm) (0.0149 inch) for the purpose of sealing the ends of can bodies including nonmetal or composite can bodies.

Capture device means a hood, enclosure, room, floor sweep, or other means of containing or collecting emissions and directing those emissions into an add-on air pollution control device.

Capture efficiency or *capture system efficiency* means the portion (expressed as a percentage) of the pollutants from an emission source that is delivered to an add-on control device.

Capture system means one or more capture devices intended to collect emissions generated by a coating operation in the use of coatings or cleaning materials, both at the point of application and at subsequent points where emissions from the coatings or cleaning materials occur, such as flash-off, drying, or curing. As used in this subpart, multiple capture devices that collect emissions generated by a coating operation are considered a single capture system.

Cleaning material means a solvent used to remove contaminants and other materials such as dirt, grease, oil, and dried or wet coating (*e.g.*, depainting) from a substrate before or after coating application or from equipment associated with a coating operation, such as spray booths, spray guns, racks, tanks, and hangers. Thus, it includes any cleaning material used on substrates or equipment or both.

Coating means a material applied to a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, paints, sealants, caulks, inks, adhesives, and maskants. Fusion pastes, ink jet markings, mist solutions, and lubricants, as well as decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances, are not considered coatings for the purposes of this subpart.

Coating operation means equipment used to apply coating to a metal can or end (including decorative tins), or metal crown or closure, and to dry or cure the coating after application. A coating operation always includes at least the point at which a coating is applied and all subsequent points in the affected source where organic HAP emissions from that coating occur. There may be multiple coating operations in an affected source. Coating application with hand-held nonrefillable aerosol containers, touch-up markers, or marking pens is not a coating operation for the purposes of this subpart.

Coating solids means the nonvolatile portion of a coating that makes up the dry film.

Continuous parameter monitoring system (CPMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this subpart; used to sample, condition (if applicable), analyze, and provide a record of coating operation, capture system, or add-on control device parameters.

Controlled coating operation means a coating operation from which some or all of the organic HAP emissions are routed through an emission capture system and add-on control device.

Crowns and closures means steel or aluminum coverings such as bottle caps and jar lids for containers other than can ends.

Decorative tin means a single-walled container, designed to be covered or uncovered that is manufactured from metal substrate equal to or thinner than 0.3785 mm (0.0149 inch) and is normally coated on the exterior surface with decorative coatings. Decorative tins may contain foods but are not hermetically sealed and are not subject to food processing steps such as retort or pasteurization. Interior coatings are not usually applied to protect the metal and contents from chemical interaction.

Deviation means any instance in which an affected source subject to this subpart or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart including but not limited to any emission limit, operating limit, or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limit, operating limit, or work practice

standard in this subpart during startup, shutdown, or malfunction regardless of whether or not such failure is permitted by this subpart.

Drum means a cylindrical metal container with walls of 29 gauge or thicker and a capacity greater than 45.4 liters (12 gal).

Emission limitation means an emission limit, operating limit, or work practice standard.

Enclosure means a structure that surrounds a source of emissions and captures and directs the emissions to an add-on control device.

End coating means the application of end seal compound or repair spray on can ends during manufacturing.

End seal compound means the coating applied onto ends of cans that functions to seal the end(s) of a can to the can body.

Exempt compound means a specific compound that is not considered a VOC due to negligible photochemical reactivity. The exempt compounds are listed in 40 CFR 51.100(s).

Food can means any can manufactured to contain edible products and designed to be hermetically sealed. Does not include decorative tins.

Fusion paste means a material used to attach nozzles and other miscellaneous parts to general line cans.

General line can means any can manufactured to contain inedible products. Does not include aerosol cans or decorative tins.

Ink jet marking means the ink and makeup fluid used for date code and other identification markings on a can for the marking on a can indicating when food in a can has completed the retort process.

Inside spray means a coating sprayed on the interior of a can body to provide a protective film between the can and its contents.

Lubricant means an organic liquid used as a lubricating agent to facilitate the handling and fabrication (*e.g.*, tab making, stamping, or necking) of can bodies or ends.

Manufacturer's formulation data means data on a material (such as a coating) that are supplied by the material manufacturer based on knowledge of the ingredients used to manufacture that material, rather than based on testing of the material with the test methods specified in § 63.3521. Manufacturer's formulation data may include, but are not limited to, information on density, organic HAP content, volatile organic matter content, and coating solids content.

Mass fraction of organic HAP means the ratio of the mass of organic HAP to the mass of a material in which it is contained, expressed as kg of organic HAP per kg of material.

Metal can means a single-walled container manufactured from metal substrate equal to or thinner than 0.3785 mm (0.0149 inch).

Mist solution means a hydrocarbon or aqueous solution used as an application aid with solvent-based or waterborne end seal compounds to prevent compound accumulation on the lining nozzle.

Month means a calendar month or a pre-specified period of 28 days to 35 days to allow for flexibility in recordkeeping when data are based on a business accounting period.

Nonaseptic coating means any coating that is not subjected to high temperature steam, chemicals, or a combination of both to sterilize food cans prior to filling.

One and two-piece draw and iron can means a steel or aluminum can manufactured by the draw and iron process. Includes two-piece beverage cans, two-piece food cans, and one-piece aerosol cans.

One-piece aerosol can means an aerosol can formed by the draw and iron process to which no ends are attached and a valve is placed directly on top.

Organic HAP content means the mass of organic HAP per volume of coating solids for a coating, calculated using Equation 1 of § 63.3521. The organic HAP content is determined for the coating in the condition it is in when received from its manufacturer or supplier and does not account for any alteration after receipt.

Pail means a cylindrical or rectangular metal container with walls of 29 gauge or thicker and a capacity of 7.6 to 45.4 liters (2 to 12 gal) (for example, bucket).

Permanent total enclosure (PTE) means a permanently installed enclosure that meets the criteria of Method 204 of appendix M, 40 CFR part 51, for a PTE and that directs all the exhaust gases from the enclosure to an add-on control device.

Protective oil means an organic material that is applied to metal for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oil includes, but is not limited to, lubricating oils, evaporative oils (including those that evaporate completely), and extrusion oils.

Repair spray means a spray coating for post-formed easy-open ends to provide additional protection in the scored areas by covering breaks at the score location or to provide an additional layer of protective coating on the interior of the end for corrosion resistance.

Research or laboratory equipment means any equipment that is being used to conduct research and development of new processes and products, when such equipment is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of final or intermediate products for commercial purposes, except in a *de minimis* manner.

Responsible official means responsible official as defined in 40 CFR 70.2.

Sheetcoating means a can manufacturing coating process that involves coating of flat metal sheets before they are formed into cans.

Side seam stripe means a coating applied to the interior and/or exterior of the welded or soldered seam of a three-piece can body to protect the exposed metal.

Startup, initial means the first time equipment is brought online in a facility.

Surface preparation means use of a cleaning material on a portion of or all of a substrate. That includes use of a cleaning material to remove dried coating which is sometimes called "depainting."

Temporary total enclosure (TTE) means an enclosure constructed for the purpose of measuring the capture efficiency of pollutants emitted from a given source as defined in Method 204 of appendix M, 40 CFR part 51.

Thinner means an organic solvent that is added to a coating after the coating is received from the supplier.

Three-piece aerosol can means a steel aerosol can formed by the three-piece can assembly process manufactured to contain food or nonfood products.

Three-piece can assembly means the process of forming a flat metal sheet into a shaped can body which may include the processes of necking, flanging, beading, and seaming and application of a side seam stripe and/or an inside spray coating.

Three-piece food can means a steel can formed by the three-piece can assembly process manufactured to contain edible products and designed to be hermetically sealed.

Total volatile hydrocarbon (TVH) means the total amount of nonaqueous volatile organic matter determined according to Methods 204 and 204A through 204F of appendix M to 40 CFR part 51 and substituting the term TVH each place in the methods where the term VOC is used. The TVH includes both VOC and non-VOC.

Two-piece beverage can means a two-piece draw and iron can manufactured

to contain drinkable liquids such as beer, soft drinks, or fruit juices.

Two-piece food can means a steel or aluminum can manufactured by the draw and iron process and designed to contain edible products other than beverages and to be hermetically sealed.

Uncontrolled coating operation means a coating operation from which none of the organic HAP emissions are routed through an emission capture system and add-on control device.

Volatile organic compound (VOC) means any compound defined as VOC in 40 CFR 51.100(s).

Volume fraction of coating solids means the ratio of the volume of coating solids (also known as volume of nonvolatiles) to the volume of coating; liters of coating solids per liter of coating.

Wastewater means water that is generated in a coating operation and is collected, stored, or treated prior to being discarded or discharged.

Tables to Subpart KKKK of Part 63

TABLE 1 TO SUBPART KKKK OF PART 63.—EMISSION LIMITS FOR NEW OR RECONSTRUCTED AFFECTED SOURCES

[You must comply with the emission limits that apply to your affected source in the following table as required by § 63.3490(a) through (c)]

If you apply surface coatings to metal cans or metal can parts in this subcategory . . .	Then for all coatings of this type . . .	You must meet the following organic HAP emission limit in kg HAP/liter solids (lbs HAP/gal solids): [a], [b]
1. One and two-piece draw and iron can body coating.	a. Two-piece beverage cans—all coatings	0.04 (0.31).
	b. Two-piece food cans—all coatings	0.06 (0.50).
	c. One-piece aerosol cans—all coatings	0.08 (0.65).
2. Sheetcoating	Sheetcoating	0.02 (0.17).
3. Three-piece can assembly	a. Inside spray	0.12 (1.03).
	b. Aseptic side seam stripes on food cans	1.48 (12.37).
	c. Nonaseptic side seam stripes on food cans	0.72 (5.96).
	d. Side seam stripes on general line nonfood cans.	1.18 (9.84).
	e. Side seam stripes on aerosol cans	1.46 (12.14).
4. End coating	a. Aseptic end seal compounds	0.06 (0.54).
	b. Nonaseptic end seal compounds	0.00 (0.00).
	c. Repair spray coatings	0.64 (5.34).

[a] If you apply surface coatings of more than one type within any one subcategory you may calculate an OSEL according to § 63.3531(i).
[b] Rounding differences in specific emission limits are attributable to unit conversions.

TABLE 2 TO SUBPART KKKK OF PART 63.—EMISSION LIMITS FOR EXISTING AFFECTED SOURCES

[You must comply with the emission limits that apply to your affected source in the following table as required by § 63.3490(a) through (c)]

If you apply surface coatings to metal cans or metal can parts in this subcategory . . .	Then for all coatings of this type . . .	You must meet the following organic HAP emission limit in kg HAP/liter solids (lbs HAP/gal solids): [a], [b]
1. One and two-piece draw and iron can body coating.	a. Two-piece beverage cans—all coatings	0.07 (0.59).
	b. Two-piece food cans—all coatings	0.06 (0.51).
	c. One-piece aerosol cans—all coatings	0.12 (0.99).
2. Sheetcoating	Sheetcoating	0.03 (0.26).
3. Three-piece can assembly	a. Inside spray	0.29 (2.43).
	b. Aseptic side seam stripes on food cans	1.94 (16.16).
	c. Nonaseptic side seam stripes on food cans	0.79 (6.57).
	d. Side seam stripes on general line nonfood cans.	1.18 (9.84).
	e. Side seam stripes on aerosol cans	1.46 (12.14).
4. End coating	a. Aseptic end seal compounds	0.06 (0.54).
	b. Nonaseptic end seal compounds	0.00 (0.00).
	c. Repair spray coatings	2.06 (17.17).

[a] If you apply surface coatings of more than one type within any one subcategory you may calculate an OSEL according to § 63.3531(i).
[b] Rounding differences in specific emission limits are attributable to unit conversions.

TABLE 3 TO SUBPART KKKK OF PART 63.—EMISSION LIMITS FOR AFFECTED SOURCES USING THE CONTROL EFFICIENCY/OUTLET CONCENTRATION COMPLIANCE OPTION

[You must comply with the emission limits that apply to your affected source in the following table as required by § 63.3490(d)]

If you use the control efficiency/outlet concentration option to comply with the emission limitations for any coating operation(s) . . .	Then you must comply with one of the following by using an emissions control system to . . .
1. in a new or reconstructed affected source	a. reduce emissions of total HAP, measured as THC (as carbon),[a] by 97 percent; or b. limit emissions of total HAP, measured as THC (as carbon),[a] to 20 ppmvd at the control device outlet and use a PTE.
2. in an existing affected source	a. reduce emissions of total HAP, measured as THC (as carbon),[a] by 95 percent; or b. limit emissions of total HAP, measured as THC (as carbon),[a] to 20 ppmvd at the control device outlet and use a PTE.

[a] You may choose to subtract methane from THC as carbon measurements.

TABLE 4 TO SUBPART KKKK OF PART 63.—OPERATING LIMITS IF USING THE EMISSION RATE WITH ADD-ON CONTROLS OPTION OR THE CONTROL EFFICIENCY/OUTLET CONCENTRATION COMPLIANCE OPTION

[If you are required to comply with operating limits by § 63.3492, you must comply with the applicable operating limits in the following table]

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
1. Thermal oxidizer	a. The average combustion temperature in each 3-hour block period must not fall below the combustion temperature limit established according to § 63.3546(a) or § 63.3556(a).	i. Collecting the combustion temperature data according to § 63.3547(c) or § 63.3557(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour block average combustion temperature at or above the temperature limit established according to § 63.3546(a) or § 63.3556(a).
2. Catalytic oxidizer	a. The average temperature difference across the catalyst bed in each 3-hour period does not fall below the temperature difference limit established according to § 63.3546(b)(2) or § 63.3556(b)(2); or	i. Collecting the temperature data according to § 63.3547(c) or § 63.3578(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour block average temperature difference at or above the temperature difference limit established according to § 63.3546(b)(2) or § 63.3556(b)(2).
	b. The average temperature measured at the inlet to the catalyst bed in each 3-hour block period must not fall below the limit established according to § 63.3546(b) or § 63.3556(b); and	i. Collecting the temperature data according to § 63.3547(c) or § 63.3557(c); and ii. Reducing the data to 3-hour block averages, and iii. Maintaining the 3-hour block average temperature at the inlet to the catalyst bed at or above the temperature limit established according to § 63.3546(b) or § 63.3556(b).
	c. Develop and implement an inspection and maintenance plan according to § 63.3546(b)(4) or § 63.3556(b)(4).	Maintaining an up-to-date inspection plan, records of annual catalyst activity checks, records of monthly inspections of the oxidizer system, and records of the annual internal inspections of the catalyst bed. If a problem is discovered during a monthly or annual inspection required by § 63.3546(b)(4) or § 63.3556(b)(4), you must take corrective action as soon as practicable consistent with the manufacturer's recommendations.
3. Regenerative oxidizers	a. Develop and implement a valve inspection plan according to § 63.3546(c) or § 63.3546(c); and either	Maintaining an up-to-date valve inspection plan. If a problem is discovered during an inspection required by § 63.3556(c), or § 63.3556(c), you must take corrective action as soon as soon as practicable.
	b. If you are using a regenerative thermal oxidizer, follow the operating limits according to 1.a of this table; or	See all applicable items in 1.a of this table.
	c. If you are using a regenerative catalytic oxidizer, follow the operating limits according to item 2.a of this table.	See all applicable items in 2.a, 2.b, and 2.c of this table.
4. Carbon adsorber	a. The total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each carbon bed regeneration cycle must not fall below the total regeneration desorbing gas mass flow limit established according to § 63.3546(d) or § 63.3556(d).	i. Measuring the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle according to § 63.3547(d) or § 63.3557(d); and ii. Maintaining the total regeneration desorbing gas mass flow at or above the mass flow limit.
	b. The temperature of the carbon bed, after completing each regeneration and any cooling cycle, must not exceed the carbon bed temperature limit established according to § 63.3546(d) or § 63.3556(d).	i. Measuring the temperature of the carbon bed, after completing each regeneration and any cooling cycle, according to § 63.3547(d) or § 63.3557(d); and ii. Operating the carbon beds such that each carbon bed is not returned to service until completing each regeneration and any cooling cycle until the recorded temperature of the carbon bed is at or below the temperature limit.
5. Condenser	a. The average condenser outlet (product side) gas temperature in each 3-hour period must not exceed the temperature limit established according to § 63,3546(e) or § 63.3556(e).	i. Collecting the condenser outlet (product side) gas temperature according to § 63.3547(e) or § 63.3557(e); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour block average gas temperature at the outlet at or below the temperature limit.

TABLE 4 TO SUBPART KKKK OF PART 63.—OPERATING LIMITS IF USING THE EMISSION RATE WITH ADD-ON CONTROLS OPTION OR THE CONTROL EFFICIENCY/OUTLET CONCENTRATION COMPLIANCE OPTION—Continued

[If you are required to comply with operating limits by § 63.3492, you must comply with the applicable operating limits in the following table]

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
6. Concentrators, including zeolite wheels and rotary carbon absorbers.	a. The average inlet temperature measured from the desorption reactivation zone in each 3-hour block period must not fall below the limit established according to § 63.3546(f) or § 63.3556(f).	i. Collecting the temperature data including zeolite inlet temperature according to § 63.3547(f) ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour block average temperature at or above the temperature limit.
	b. The indicator of performance for the desorption reactivation fan operation in each 3-hour block period must not fall outside of the range established according to § 63.3547(f) or § 63.3556(f).	i. Collecting the indicator data according to § 63.3547(f) or § 63.3557(f); and ii. Maintaining the indicator data within the range established.
	c. The nominal rotational speed of the concentrator in each 3-hour block period must not fall below the speed established according to § 63.3546(f) or § 63.3556(f).	i. Collecting the rotational speed according to § 63.3547(f) or § 63.3557(f); ii. Reducing the speed data to 3-hour block averages; and iii. Maintaining the 3-hour block average speed at or above the rotational speed limit.
	d. Develop and implement an inspection and maintenance plan according to § 63.3546(f)(3) or § 63.3556(f)(3).	Maintaining an up-to-date inspection plan, and records of annual adsorbent activity checks. The results shall be compared to historical results and/or results for new adsorbents. If a problem is discovered during the annual inspection required by § 63.3546(f)(3) or § 63.3556(f)(3), you must take corrective action as soon as practicable consistent with the manufacturer's recommendations.
7. Emission capture system that is a PTE according to § 63.3544(a) or § 63.3554(a).	a. The direction of the air flow at all times must be into the enclosure; and either	i. Collecting the direction of air of air flow, and either the facial velocity of air through all natural draft openings or the pressure drop across the enclosure; and ii. Maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.
	b. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or	*See* items 7.a.i and ii of this table.
	c. The pressure drop across the enclosure must be at least 0.007 inch H_20, as established in Method 204 of appendix M to 40 CFR part 51.	*See* items 7.a.i and ii of this table.
8. Emission capture system that is not a PTE according to § 63.3544(a).	a. The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in each 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to § 63.3547(g).	i. Collecting the gas volumetric flow rate or duct static pressure for each capture device according to § 63.3546(g); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour block average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limit.

TABLE 5 TO SUBPART KKKK OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART KKKK

[You must comply with the applicable General Provisions requirements according to the following table]

Citation	Subject	Applicable to subpart KKKK	Explanation
§ 63.1(a)(1)–(4)	General Applicability	Yes.	
§ 63.1(a)(5)	[Reserved]	No.	
§ 63.1(a)(6)	Source Category Listing	Yes.	
§ 63.1(a)(7)–(9)	[Reserved]	No.	
§ 63.1(a)(10)–(12)	Timing and Overlap Clarifications	Yes.	
§ 63.1(b)(1)	Initial Applicability Determination	Yes	Applicability to subpart KKKK is also specified in § 63.3481.
§ 63.1(b)(2)	[Reserved]	No.	
§ 63.1(b)(3)	Applicability Determination Recordkeeping.	Yes.	
§ 63.1(c)(1)	Applicability after Standard Established	Yes.	

TABLE 5 TO SUBPART KKKK OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART KKKK—Continued

[You must comply with the applicable General Provisions requirements according to the following table]

Citation	Subject	Applicable to subpart KKKK	Explanation
§ 63.1(c)(2)–(3)	Applicability of Permit Program for Area Sources.	No	Area sources are not subject to subpart KKKK.
§ 63.1(c)(4)–(5)	Extensions and Notifications	Yes.	
§ 63.1(e)	Applicability of Permit Program before Relevant Standard is Set.	Yes.	
§ 63.2	Definitions	Yes	Additional definitions are specified in § 63.3561.
§ 63.3(a)–(c)	Units and Abbreviations	Yes.	
§ 63.4(a)(1)–(5)	Prohibited Activities	Yes.	
§ 63.4(b)–(c)	Circumvention/Fragmentation	Yes.	
§ 63.5(a)	Construction/Reconstruction	Yes.	
§ 63.5(b)(1)–(6)	Requirements for Existing, Newly Constructed, and Reconstructed Sources.	Yes.	
§ 63.5(d)	Application for Approval of Construction/Reconstruction.	Yes.	
§ 63.5(e)	Approval of Construction/Reconstruction.	Yes.	
§ 63.5(f)	Approval of Construction/Reconstruction Based on Prior State Review.	Yes.	
§ 63.6(a)	Compliance with Standards and Maintenance Requirements—Applicability.	Yes.	
§ 63.6(b)(1)–(7)	Compliance Dates for New and Reconstructed Sources.	Yes	Section 63.3483 specifies the compliance dates.
§ 63.6(c)(1)–(5)	Compliance Dates for Existing Sources	Yes	Section 63.3483 specifies the compliance dates.
§ 63.6(e)(1)–(2)	Operation and Maintenance	Yes.	
§ 63.6(e)(3)	SSMP	Yes	Only sources using an add-on control device to comply with the standard must complete SSMP.
§ 63.6(f)(1)	Compliance Except during Startup, Shutdown, and Malfunction.	Yes	Applies only to sources using an add-on control device to comply with the standards.
§ 63.6(f)(2)–(3)	Methods for Determining Compliance	Yes.	
§ 63.6(g)(1)–(3)	Use of an Alternative Standard	Yes.	
§ 63.6(h)	Compliance with Opacity/Visible Emission Standards.	No	Subpart KKKK does not establish opacity standards and does not require continuous opacity monitoring systems (COMS).
§ 63.6(i)(1)–(14)	Extension of Compliance	Yes.	
§ 63.6(i)(15)	[Reserved]	No.	
§ 63.6(i)(16)	Compliance Extensions and Administrator's Authority.	Yes.	
§ 63.6(j)	Presidential Compliance Exemption	Yes.	
§ 63.7(a)(1)	Performance Test Requirements—Applicability.	Yes	Applies to all affected sources. Additional requirements for performance testing are specified in §§ 63.3543, 63.3544, 63.3545, 63.3554, and 63.3555.
§ 63.7(a)(2)	Performance Test Requirements—Dates.	Yes	Applies only to performance tests for capture system and control device efficiency at sources using these to comply with the standards. Sections 63.3540 and 63.3550 specify the schedule for performance test requirements that are earlier than those specified in § 63.7(a)(2).
§ 63.7(a)(3)	Performance Tests Required by the Administrator.	Yes.	
§ 63.7(b)–(e)	Performance Test Requirements—Notification, Quality Assurance, Facilities Necessary for Safe Testing, Conditions During Test.	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards.
§ 63.7(f)	Performance Test Requirements—Use of Alternative Test Method.	Yes	Applies to all test methods except those used to determine capture system efficiency.
§ 63.7(g)–(h)	Performance Test Requirements—Data Analysis, Recordkeeping, Reporting, Waiver of Test.	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards.
§ 63.8(a)(1)–(3)	Monitoring Requirements—Applicability	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standards. Additional requirements for monitoring are specified in §§ 63.3547 and 63.3557.
§ 63.8(a)(4)	Additional Monitoring Requirements	No	Subpart KKKK does not have monitoring requirements for flares.
§ 63.8(b)	Conduct of Monitoring	Yes.	
§ 63.8(c)(1)–(3)	Continuous Monitoring System (CMS) Operation and Maintenance.	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standards. Additional requirements for CMS operations and maintenance are specified in §§ 63.3547 and 63.3557.

TABLE 5 TO SUBPART KKKK OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART KKKK—Continued

[You must comply with the applicable General Provisions requirements according to the following table]

Citation	Subject	Applicable to subpart KKKK	Explanation
§ 63.8(c)(4)	CMS	No	Sections 63.3547 and 63.3557 specify the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply.
§ 63.8(c)(5)	COMS	No	Subpart KKKK does not have opacity or visible emission standards.
§ 63.8(c)(6)	CMS Requirements	No	Sections 63.3547 and 63.3557 specify the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply.
§ 63.8(c)(7)	CMS Out-of-Control Periods	Yes.	
§ 63.8(c)(8)	CMS Out-of-Control Periods Reporting	No	Section 63.3511 requires reporting of CMS out of control periods.
§ 63.8(d)–(e)	Quality Control Program and CMS Performance Evaluation.	No.	
§ 63.8(f)(1)–(5)	Use of an Alternative Monitoring Method.	Yes.	
§ 63.8(f)(6)	Alternative to Relative Accuracy Test	No.	
§ 63.8(g)(1)–(5)	Data Reduction	No	Sections 63.3542, 63.3547, 63.3552 and 63.3557 specify monitoring data reduction.
§ 63.9(a)	Notification Applicability	Yes.	
§ 63.9(b)(1)–(2)	Initial Notifications	Yes.	
§ 63.9(b)(3)	[Reserved]	No.	
§ 63.9(b)(4)–(5)	Application for Approval of Construction or Reconstruction.	Yes.	
§ 63.9(c)	Request for Extension of Compliance	Yes.	
§ 63.9(d)	Special Compliance Requirement Notification.	Yes.	
§ 63.9(e)	Notification of Performance Test	Yes	Applies only to capture system and add-on control device performance tests at sources using these to comply with the standards.
§ 63.9(f)	Notification of Visible Emissions/Opacity Test.	No	Subpart KKKK does not have opacity or visible emission standards.
§ 63.9(g)(1)–(3)	Additional Notifications When Using CMS.	No.	
§ 63.9(h)(1)–(3)	Notification of Compliance Status	Yes	Section 63.3510 specifies the dates for submitting the notification of compliance status.
§ 63.9(h)(4)	[Reserved]	No.	
§ 63.9(h)(5)–(6)	Clarifications	Yes.	
§ 63.9(i)	Adjustment of Submittal Deadlines	Yes.	
§ 63.9(j)	Change in Previous Information	Yes.	
§ 63.10(a)	Recordkeeping/Reporting—Applicability and General Information.	Yes.	
§ 63.10(b)(1)	General Recordkeeping Requirements	Yes	Additional requirements are specified in §§ 63.3512 and 63.3513.
§ 63.10(b)(2) (i)–(v)	Recordkeeping Relevant to Startup, Shutdown, and Malfunction Periods and CMS.	Yes	Requirements for Startup, Shutdown, and Malfunction records only apply to add-on control devices used to comply with the standards.
§ 63.10(b)(2) (vi)–(xi)		Yes.	
§ 63.10(b)(2) (xii)	Records	Yes.	
§ 63.10(b)(2) (xiii)		No.	
§ 63.10(b)(2) (xiv)		Yes.	
§ 63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations.	Yes.	
§ 63.10(c)(1)	Additional Recordkeeping Requirements for Sources with CMS.	Yes.	
§ 63.10(c)(2)–(4)	[Reserved]	No.	
§ 63.10(c)(5)–(6)		Yes.	
§ 63.10(c)(7)–(8)		No	The same records are required in § 63.3511(a)(7).
§ 63.10(c)(9)	[Reserved]	No.	
§ 63.10(c)(10)–(15)		Yes.	
§ 63.10(d)(1)	General Reporting Requirements	Yes	Additional requirements are specified in § 63.3511.
§ 63.10(d)(2)	Report of Performance Test Results	Yes	Additional requirements are specified in § 63.3511(b).
§ 63.10(d)(3)	Reporting Opacity or Visible Emissions Observations.	No	Subpart KKKK does not require opacity or visible emissions observations.
§ 63.10(d)(4)	Progress Reports for Sources with Compliance Extensions.	Yes.	
§ 63.10(d)(5)	Startup, Shutdown, Malfunction Reports	Yes	Applies only to and add-on control devices at sources using these to comply with the standards.
§ 63.10(e)(1)–(2)	Additional CMS Reports	No.	

TABLE 5 TO SUBPART KKKK OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART KKKK—Continued

[You must comply with the applicable General Provisions requirements according to the following table]

Citation	Subject	Applicable to subpart KKKK	Explanation
§ 63.10(e)(3)	Excess Emissions/CMS Performance Reports.	No	Section 63.3511(b) specifies the contents of periodic compliance reports.
§ 63.10(e)(4)	COMS Data Reports	No	Subpart KKKK does not specify requirements for opacity or COMS.
§ 63.10(f)	Recordkeeping/Reporting Waiver	Yes.	
§ 63.11	Control Device Requirements/Flares	No	Subpart KKKK does not specify use of flares for compliance.
§ 63.12	State Authority and Delegations	Yes.	
§ 63.13	Addresses	Yes.	
§ 63.14	Incorporation by Reference	Yes.	
§ 63.15	Availability of Information/Confidentiality	Yes.	

TABLE 6 TO SUBPART KKKK OF PART 63.—DEFAULT ORGANIC HAP MASS FRACTION FOR SOLVENTS AND SOLVENT BLENDS

[You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data]

Solvent/solvent blend	CAS. No.	Average organic HAP mass fraction	Typical organic HAP, percent by mass
1. Toluene	108–88–3	1.0	Toluene.
2. Xylene(s)	1330–20–7	1.0	Xylenes, ethylbenzene.
3. Hexane	110–54–3	0.5	n-hexane.
4. n-Hexane	110–54–3	1.0	n-hexane.
5. Ethylbenzene	100–41–4	1.0	Ethylbenzene.
6. Aliphatic 140		0	None.
7. Aromatic 100		0.02	1% Xylene, 1% cumene.
8. Aromatic 150		0.09	Naphthalene.
9. Aromatic naphtha	64742–95–6	0.02	1% Xylene, 1% cumene.
10. Aromatic solvent	64742–94–5	0.1	Naphthalene.
11. Exempt mineral spirits	8032–32–4	0	None.
12. Ligroines (VM & P)	8032–32–4	0	None.
13. Lactol spirits	64742–89–6	0.15	Toluene.
14. Low aromatic white spirit	64742–82–1	0	None.
15. Mineral spirits	64742–88–7	0.01	Xylenes.
16. Hydrotreated naphtha	64742–48–9	0	None.
17. Hydrotreated light distillate	64742–47–8	0.001	Toluene.
18. Stoddard solvent	8052–41–3	0.01	Xylenes.
19. Super high-flash naphtha	64742–95–6	0.05	Xylenes.
20. Varsol® solvent	8052–49–3	0.01	0.5% Xylenes, 0.5% ethylbenzene.
21. VM & P naphtha	64742–89–8	0.06	3% Toluene, 3% xylene.
22. Petroleum distillate mixture	68477–31–6	0.08	4% Naphthalene, 4% biphenyl.

TABLE 7 TO SUBPART KKKK OF PART 63.—DEFAULT ORGANIC HAP MASS FRACTION FOR PETROLEUM SOLVENT GROUPS [a]

[You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data]

Solvent type	Average organic HAP mass fraction	Typical organic HAP, percent by mass
Aliphatic [b]	0.03	1% Xylene, 1% toluene, and 1% ehylbenzene.
Aromatic [c]	0.06	4% Xylene, 1% toluene, and 1% ethylbenzene.

[a] Use this table only if the solvent blend does not match any of the solvent blends in Table 6 to this subpart and you only know whether the blend is aliphatic or aromatic.

[b] *E.g.*, Mineral Spirits 135, Mineral Spirits 150 EC, Naphtha, Mixed Hydrocarbon, Aliphatic Hydrocarbon, Aliphatic Naphtha, Naphthol Spirits, Petroleum Spirits, Petroleum Oil, Petroleum Naphtha, Solvent Naphtha, Solvent Blend.

[c] *E.g.*, Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

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BILLING CODE 6560–50–P

TRANSPORTATION CONFORMITY EMISSION BUDGETS FOR THE DELAWARE PORTION OF THE PHILADELPHIA AREA—Continued

Type of control strategy SIP	Year	Kent County		New Castle County		Effective date of adequacy determination or SIP approval
		VOC	NO_X	VOC	NO_X	
Post-1996 ROP Plan	2005	4.84	7.90	14.76	22.92	May 2, 2001, (66 FR 19769, published April 17, 2001).
Attainment Demonstration	2005	5.14	8.42	15.08	21.28	SIP approval on December 5, 2003; Effective on February 3, 2004.

(1)(2) [Reserved]

(e) EPA approves Delaware's revised 2005 VOC and NO_X motor vehicle emission budgets for the 1-hour ozone attainment plan for the Delaware portion of the Philadelphia-Wilmington-Trenton severe ozone nonattainment area as a SIP revision. The revisions were submitted by the Delaware Department of Natural Resources and Environmental Control on September 2, 2003. Submittal of these revised MOBILE6-based motor vehicle emissions budgets was a requirement of EPA's approval of the attainment demonstration under paragraph (c) of this section.

[FR Doc. 03–30041 Filed 12–4–03; 8:45 am]
BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[OAR–2002–0045, FRL–7594–8]

RIN 2060–AK53

National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule; technical corrections.

SUMMARY: On July 18, 2003, the EPA promulgated amendments to the national emission standards for hazardous air pollutants (NESHAP) for chemical recovery combustion sources at kraft, soda, sulfite, and stand-alone semichemical pulp mills. The technical corrections in this action restore provisions which were inadvertently deleted by the July 18, 2003, amendments and restore a provision which was inadvertently omitted from the January 12, 2001, final rule.

EFFECTIVE DATE: December 5, 2003.

ADDRESSES: Docket numbers OAR–2002–0045 and A–94–67, containing supporting information used in the development of this notice, are available for public viewing at the EPA Docket Center (Air Docket), EPA West, Room B–102, 1301 Constitution Avenue, NW., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Mr. Jeff Telander, Minerals and Inorganic Chemicals Group, Emission Standards Division (C504–05), Office of Air Quality Planning and Standards, U.S. EPA, Research Triangle Park, NC 27711, telephone number (919) 541–5427, facsimile number (919) 541–5600, electronic mail address *telander.jeff@epa.gov.*

SUPPLEMENTARY INFORMATION: *Docket.* The EPA has established an official public docket for this action including both Docket ID No. OAR–2002–0045 and Docket ID No. A–94–67. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. All items may not be listed under both docket numbers, so interested parties should inspect both docket numbers to ensure that they have received all materials relevant to the final rule. Although a part of the official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The official public docket is available for public viewing at the Air Docket in the EPA Docket Center, EPA West, Room B–102, 1301 Constitution Avenue, NW., Washington, DC 20460. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742.

Electronic Access. You may access this **Federal Register** document electronically through the EPA Internet under the **Federal Register** listings at *http://www.epa.gov/fedrgstr/.* You may also access a copy of the final rule incorporating the provisions of this **Federal Register** notice through the Technology Transfer Network (TTN) at *http://www.epa.gov/ttn/atw/pulp/pulppg.html.*

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov.edocket/* to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility identified above. Once in the system, select search, then key in the appropriate docket identification number.

Background: On February 18, 2003, we published a direct final rule (68 FR 7706) and parallel proposal (68 FR 7735) amending the NESHAP for chemical recovery combustion sources at kraft, soda, sulfite, and stand-alone semichemical pulp mills (40 CFR part 63, subpart MM). The amendments clarified and consolidated the monitoring and testing requirements and added a site-specific alternative standard for one pulp mill. The consolidation of the monitoring and testing requirements resulted in significant text shifts within and between the monitoring and testing sections of the final rule.

On July 18, 2003 (68 FR 42603), we published amendments to the final rule that deleted portions of subpart MM added by the direct final rule (68 FR 7706), the provisions of which were the subject of adverse comment. The amendments also made two technical corrections to inadvertent errors in rule language. The EPA indicated in that notice that if we took further action, we would do so by acting on the pending proposed rule (68 FR 7735) and would not submit that proposal to another round of public comment.

However, the amendments inadvertently failed to restore some of the underlying rule language from the original rule. We are restoring those provisions here. The technical

corrections in this action restore the following provisions inadvertently deleted by the July 18, 2003, amendments:

- Reference in § 63.864(d) to the procedures in §§ 63.6(h) and 63.8 for installing, calibrating, maintaining, and operating a continuous opacity monitoring system;
- Requirement in § 63.864(e)(10) to determine and record the pressure drop across the scrubber and the scrubbing liquid flow rate at least once every successive 15-minute period;
- Requirement in § 63.864(e)(11) to determine and record the operating temperature of the regenerative thermal oxidizer at least once every successive 15-minute period; and,
- "Eq. 1" label for the equation in § 63.865(a)(1).

The technical corrections in this action also restore the particulate matter (PM) emission limit in English units in § 63.862(b)(1) for new kraft and soda recovery furnaces, which was inadvertently omitted from the January 12, 2001, final rule. This addition to the rule text does not alter the standard. It merely expresses it in English units, to go along with the metric units already in the rule.

The EPA is issuing today's technical corrections in final form because we are acting on the pending proposal on which there has been notice and opportunity for public comment. In addition, we gave actual notice of this action to the commenters to that proposed rule, alerted them to the possibility of this action, and considered their comments.

Section 553(d) of 5 U.S.C. allows an agency, upon a finding of good cause, to make a rule effective immediately. Because today's technical corrections restore regulatory language which was inadvertently deleted by previous amendments, do not add any requirements necessitating additional time for compliance, and otherwise do not substantively change the requirements of the final rule, we find good cause to make the technical corrections effective immediately.

Statutory and Executive Order Review

Under Executive Order 12866 (58 FR 51736, October 4, 1993), this action is not a "significant regulatory action" and is, therefore, not subject to review by the Office of Management and Budget. Because EPA has made a "good cause" finding that this action is not subject to notice and comment requirements under the Administrative Procedure Act or any other statute, it is not subject to the regulatory flexibility provisions of the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*), or to sections 202 and 205 of the Unfunded Mandates Reform Act of 1995 (UMRA) (Public Law 104–4). In addition, this action does not significantly or uniquely affect small governments or impose a significant intergovernmental mandate, as described in sections 203 and 204 of the UMRA. This action also does not significantly or uniquely affect the communities of tribal governments, as specified by Executive Order 13084 (63 FR 27655, May 10, 1998). This action will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132 (64 FR 43255, August 10, 1999). This action also is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because it is not economically significant.

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Public Law 104–113; 15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. The EPA is not proposing/adopting any voluntary consensus standards in this action.

This action does not involve special consideration of environmental justice related issues as required by Executive Order 12898 (59 FR 7629, February 16, 1994). In issuing these technical corrections, EPA has taken the necessary steps to eliminate drafting errors and ambiguity, minimize potential litigation, and provide a clear legal standard for affected conduct, as required by section 3 of Executive Order 12988 (61 FR 4729, February 7, 1996). The EPA has complied with Executive Order 12630 (53 FR 8859, March 15, 1988) by examining the takings implications of these technical corrections in accordance with the "Attorney General's Supplemental Guidelines for the Evaluation of Risk and Avoidance of Unanticipated Takings" issued under the executive order. These technical corrections do not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

The Congressional Review Act (5 U.S.C. 801 *et seq.*), as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that, before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. Section 808 allows the issuing agency to make a rule effective sooner than otherwise provided by the Congressional Review Act if the agency makes a good cause finding that notice and public procedure is impracticable, unnecessary, or contrary to the public interest. This determination must be supported by a brief statement (5 U.S.C. 808(2)). As stated previously, EPA has made such a good cause finding, including the reasons therefor, and established an effective date of December 5, 2003. The EPA will submit a report containing the rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances, Reporting and recordkeeping requirements.

Dated: November 10, 2003.

Robert Brenner,

Acting Assistant Administrator for Air and Radiation.

■ For the reasons set out in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is amended as follows:

PART 63—[AMENDED]

■ 1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart MM—National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills

■ 2. Section 63.862 is amended by revising paragraph (b)(1) to read as follows:

§ 63.862 Standards.

* * * * *

(b) *Standards for HAP metals: new sources.* (1) The owner or operator of any new kraft or soda recovery furnace must ensure that the concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.034 g/dscm (0.015 gr/dscf) corrected to 8 percent oxygen.

* * * * *

■ 3. Section 63.864 is amended by:

■ a. Revising paragraph (d) introductory paragraph;
■ b. Revising paragraph (e)(10)introductory text; and
■ c. Revising paragraph (e)(11).
The revisions read as follows:

§ 63.864 Monitoring requirements.

* * * * *

(d) *Continuous opacity monitoring system (COMS).* The owner or operator of each affected kraft or soda recovery furnace or lime kiln equipped with an ESP must install, calibrate, maintain, and operate a COMS according to the provisions in §§ 63.6(h) and 63.8 and paragraphs (d)(1) through (4) of this section.

* * * * *

(e) * * *

(10) The owner or operator of each affected kraft or soda recovery furnace, kraft or soda lime kiln, sulfite combustion unit, or kraft or soda smelt dissolving tank equipped with a wet scrubber must install, calibrate, maintain, and operate a CPMS that can be used to determine and record the pressure drop across the scrubber and the scrubbing liquid flow rate at least once every successive 15-minute period using the procedures in § 63.8(c), as well as the procedures in paragraphs (e)(10)(i) and (ii) of this section:

* * * * *

(11) The owner or operator of each affected semichemical combustion unit equipped with an RTO must install, calibrate, maintain, and operate a CPMS that can be used to determine and record the operating temperature of the RTO at least once every successive 15-minute period using the procedures in § 63.8(c). The monitor must compute and record the operating temperature at the point of incineration of effluent gases that are emitted using a temperature monitor accurate to within ±1 percent of the temperature being measured.

* * * * *

■ 4. Section 63.865 is amended by revising paragraph (a)(1) to read as follows:

§ 63.865 Performance test requirements and test methods.

* * * * *

(a) * * *

(1) Determine the overall PM emission limit for the chemical recovery system at the mill using Equation 1 of this section as follows:

$$EL_{PM} = \frac{\left[\left(C_{ref,RF}\right)\left(Q_{RFtot}\right)+\left(C_{ref,LK}\right)\left(Q_{LKtot}\right)\right](F1)}{\left(BLS_{tot}\right)} + ER1_{ref,SDT} \qquad \text{(Eq. 1)}$$

Where:

EL_{PM} = overall PM emission limit for all existing process units in the chemical recovery system at the kraft or soda pulp mill, kg/Mg (lb/ton) of black liquor solids fired.

$C_{ref, RF}$ = reference concentration of 0.10 g/dscm (0.044 gr/dscf) corrected to 8 percent oxygen for existing kraft or soda recovery furnaces.

Q_{RFtot} = sum of the average volumetric gas flow rates measured during the performance test and corrected to 8 percent oxygen for all existing recovery furnaces in the chemical recovery system at the kraft or soda pulp mill, dry standard cubic meters per minute (dscm/min) (dry standard cubic feet per minute (dscf/min)).

$C_{ref,LK}$ = reference concentration of 0.15 g/dscm (0.064 gr/dscf) corrected to 10 percent oxygen for existing kraft or soda lime kilns.

Q_{LKtot} = sum of the average volumetric gas flow rates measured during the performance test and corrected to 10 percent oxygen for all existing lime kilns in the chemical recovery system at the kraft or soda pulp mill, dscm/min (dscf/min).

F1 = conversion factor, 1.44 minutes·kilogram/day·gram (min·kg/d·g) (0.206 minutes·pound/day·grain (min·b/d·gr)).

BLS_{tot} = sum of the average black liquor solids firing rates of all existing recovery furnaces in the chemical recovery system at the kraft or soda pulp mill measured during the performance test, megagrams per day (Mg/d) (tons per day (ton/d)) of black liquor solids fired.

$ER1_{ref, SDT}$ = reference emission rate of 0.10 kg/Mg (0.20 lb/ton) of black liquor solids fired for existing kraft or soda smelt dissolving tanks.

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[FR Doc. 03–30265 Filed 12–4–03; 8:45 am]
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DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Medicare & Medicaid Services

42 CFR Parts 412, 413, 476, and 484

[CMS–3055–F]

RIN 0938–AK68

Medicare Program; Photocopying Reimbursement Methodology

AGENCY: Centers for Medicare & Medicaid Services (CMS), HHS.

ACTION: Final rule.

SUMMARY: This final rule increases the rate of reimbursement for expenses incurred by prospective payment system (PPS) hospitals for photocopying medical records requested by Quality Improvement Organizations (QIOs), formerly known as Utilization and Quality Control Peer Review Organizations (PROs). We are increasing the rate from 7 cents per page to 12 cents per page to reflect inflationary changes in the labor and supply cost components of the formula.

This final rule also provides for the periodic review and adjustment of the per-page reimbursement rate to account for inflation and changes in technology. The methodology for calculating the per-page reimbursement rate will remain unchanged.

We are also providing for the payment of the expenses of furnishing photocopies to QIOs, to other providers subject to a PPS (for example, skilled nursing facilities and home health agencies), in accordance with the rules established for reimbursing PPS hospitals for these expenses.

EFFECTIVE DATE: These regulations are effective on January 5, 2004.

FOR FURTHER INFORMATION CONTACT: Les Caplan, (410) 786–7223.

SUPPLEMENTARY INFORMATION:

I. Background

Section 1866(a)(1)(F) of the Social Security Act (the Act) requires a hospital, as a condition of Medicare participation, to enter into an agreement with a quality improvement organization (QIO), for the peer review of Medicare services provided by the hospital. (**Note:** QIOs were formerly known as peer review organizations (PROs). We published a final rule with comment period on May 24, 2002 (67 FR 36539), changing the name to QIOs.) Our regulations at 42 CFR 476.78 provide that health care facilities that



Federal Register

Thursday,
December 11, 2003

Part III

Environmental Protection Agency

40 CFR Part 63
National Emission Standards for Hazardous Air Pollutants: Miscellaneous Coating Manufacturing; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[Docket ID No. OAR–2003–0178; FRL–7554–3]

RIN 2060–AK59

National Emission Standards for Hazardous Air Pollutants: Miscellaneous Coating Manufacturing

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national emission standards for hazardous air pollutants (NESHAP) for miscellaneous coating manufacturing facilities. The final rule establishes emission limits and work practice requirements for new and existing miscellaneous coating manufacturing operations, including process vessels, storage tanks, wastewater, transfer operations, equipment leaks, and heat exchange systems, and implements section 112(d) of the Clean Air Act (CAA) by requiring all major sources to meet hazardous air pollutant (HAP) emission standards reflecting application of the maximum achievable control technology (MACT). The HAP emitted from miscellaneous coating manufacturing facilities include toluene, xylene, glycol ethers, methyl ethyl ketone, and methyl isobutyl ketone. Exposure to these substances has been demonstrated to cause adverse health effects such as irritation of the lung, eye, and mucous membranes, effects on the central nervous system, and cancer. We do not have the type of current detailed data on each of the facilities and the people living around the facilities covered by the final rule for this source category that would be necessary to conduct an analysis to determine the actual population exposures to the HAP emitted from these facilities and the potential for resultant health effects. Therefore, we do not know the extent to which the adverse health effects described above occur in the populations surrounding these facilities. However, to the extent the adverse effects do occur, and the final rule reduces emissions, subsequent exposures will be reduced. The final rule will reduce HAP emissions by 4,900 tons per year (tpy) for existing facilities that manufacture miscellaneous coatings.

EFFECTIVE DATE: December 11, 2003.

ADDRESSES: Docket ID. No. OAR–2003–0178 and A–96–04 are located at the U.S. EPA, Office of Air & Radiation Docket & Information Center (6102T), 1301 Constitution Avenue, NW., room B108, Washington, DC 20460.

FOR FURTHER INFORMATION CONTACT: Mr. Randy McDonald, Organic Chemicals Group, Emission Standards Division (MD–C504–04), U.S. EPA, Research Triangle Park, NC 27711, telephone number (919) 541–5402, electronic mail (e-mail) address *mcdonald.randy@epa.gov.*

SUPPLEMENTARY INFORMATION: *Regulated Entities.* Categories and entities potentially regulated by this action include:

Category	NAICS*	Examples of regulated entities
Industry	3255	Manufacturers of coatings, including inks, paints, or adhesives.

*North American Industry Classification System.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your facility is regulated by this action, you should examine the applicability criteria in § 63.7985 of the final rule. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Docket. The EPA has established official electronic public dockets for this action under Docket ID No. OAR–2003–0178 and A–96–04. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, a public docket does not include Confidential Business Information or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the Air and Radiation Docket in the EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566–1744, and the telephone number for the Air and Radiation Docket is (202) 566–1742. A reasonable fee may be charged for copying docket materials.

Electronic Access. You may access this **Federal Register** document electronically through the EPA Internet under the **Federal Register** listings at *http://www.epa.gov/fedrgstr/.* An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Portions of the docket materials are available electronically through Docket ID No. OAR–2003–0178. Once in the system, select "search," then key in the appropriate docket identification number. You may still access publicly available docket materials through the Docket ID No. A–96–04.

Worldwide Web (WWW). In addition to being available in the docket, an electronic copy of the final rule will also be available on the WWW through the Technology Transfer Network (TTN). Following signature, a copy of the rule will be placed on the TTN's policy and guidance page for newly proposed or promulgated rules at *http://www.epa.gov/ttn/oarpg.* The TTN provides information and technology exchange in various areas of air pollution control. If more information regarding the TTN is needed, call the TTN HELP line at (919) 541–5384.

Judicial Review. Under section 307(b)(1) of the CAA, judicial review of the final NESHAP is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by February 9, 2004. Under section 307(d)(7)(B) of the CAA, only an objection to a rule or procedure raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under CAA section 307(b)(2) of the CAA, the requirements established by the final rule may not be challenged separately in any civil or criminal proceeding brought to enforce these requirements.

Background Information Document. The EPA proposed the NESHAP for miscellaneous coating manufacturing on April 4, 2002 (67 FR 16154), and received 81 comment letters and comments from 8 speakers at a public hearing on the proposal. A background information document (BID) ("National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Miscellaneous Coating Manufacturing Industry, Summary of Public Comments and Responses,") containing EPA's responses to each public comment is available in Docket ID No. OAR–2003–0178.

Outline. The information presented in this preamble is organized as follows:

I. Background
A. What is the source of authority for development of NESHAP?
B. What criteria are used in the development of NESHAP?
C. What is the history of the source category?
D. What are the health effects associated with the pollutants emitted from miscellaneous coating manufacturing?
E. How did we develop the final rule?
II. Summary of the Final Rule
A. What are the affected sources and emission points?
B. What are the emission limitations and work practice standards?
C. What are the testing and initial compliance requirements?
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III. Summary of Environmental, Energy, and Economic Impacts
A. What are the air emission reduction impacts?
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C. What are the economic impacts?
D. What are the non-air quality health and environmental impacts and energy impacts?
IV. Summary of Responses to Major Comments
A. What changes to applicability did the commenters suggest?
B. How Did We Develop the Standards?
C. Standards for Process Vessels
D. Standards for Storage Tanks
E. Standards for Wastewater
F. Standards for Equipment Leaks
G. Standards for Transfer Operations
H. Pollution Prevention
I. Initial Compliance
J. Ongoing Compliance
K. Recordkeeping and Reporting
L. Startup, Shutdown, and Malfunction
V. Statutory and Executive Order Reviews
A. Executive Order 12866: Regulatory Planning and Review
B. Paperwork Reduction Act
C. Regulatory Flexibility Act
D. Unfunded Mandates Reform Act
E. Executive Order 13132: Federalism
F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments
G. Executive Order 13045: Protection of Children from Environmental Health and Safety Risks
H. Executive Order 13211: Actions that Significantly Affect Energy Supply, Distribution, or Use
I. National Technology Transfer Advancement Act
J. Congressional Review Act

I. Background

A. What Is the Source of Authority for Development of NESHAP?

Section 112 of the CAA requires us to list categories and subcategories of major sources and some area sources of HAP and to establish NESHAP for the listed source categories and subcategories. Major sources of HAP are those that are located within a contiguous area and under common control and have the potential to emit greater than 9.1 megagrams per year (Mg/yr) (10 tpy) of any one HAP or 22.7 Mg/yr (25 tpy) of any combination of HAP.

B. What Criteria Are Used in the Development of NESHAP?

Section 112 of the CAA requires that we establish NESHAP for the control of HAP from both new and existing major sources. The CAA requires the NESHAP to reflect the maximum degree of reduction in emissions of HAP that is achievable, taking into consideration the cost of achieving the emissions reductions, any non-air quality health and environmental impacts, and energy requirements. This level of control is commonly referred to as the maximum achievable control technology or MACT.

The MACT floor is the minimum control level allowed for NESHAP and is defined under section 112(d)(3) of the CAA. In essence, the MACT floor ensures that all major sources achieve the level of control already achieved by the better-controlled and lower-emitting sources in each source category or subcategory. For new sources, the MACT floor cannot be less stringent than the emission control that is achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than standards for new sources, but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources for which the Administrator has emissions information (or the best-performing five sources for which the Administrator has or could reasonably obtain emissions information for categories or subcategories with fewer than 30 sources).

In developing MACT, we also consider control options that are more stringent than the floor. In considering whether to establish standards more stringent than the floor, we must consider cost, non-air quality health and environmental impacts, and energy requirements.

C. What Is the History of the Source Category?

Section 112 of the CAA requires us to establish rules for categories of emission sources that emit HAP. On July 16, 1992, we published an initial list of 174 source categories to be regulated (57 FR 31576). The listing was our best attempt to identify major sources of HAP by manufacturing category. Following the publication of that listing, we published a schedule for the promulgation of emission standards for each of the 174 listed source categories. At the time the initial list was published, we recognized that we might have to revise the list from time to time as better information became available.

Based on information we collected in 1995, we realized that several of the original source categories on the list had similar process equipment, emission characteristics and applicable control technologies. Additionally, many of these source categories were on the same schedule for promulgation, by November 15, 2000. Therefore, we decided to combine a number of source categories from the original listing into one broad set of emission standards. On November 7, 1996, we published a **Federal Register** notice combining 21 source categories from the initial list of 174 into the Miscellaneous Organic Chemical Processes source category (61 FR 57602). One of the 21 source categories was the manufacture of paints, coatings, and adhesives.

On November 18, 1999, we published a **Federal Register** notice describing changes to the source category list (64 FR 63035). At that time, we also described our intent to group the source categories into two new source categories instead of one. The two new source categories are called the miscellaneous organic chemical manufacturing source category and the miscellaneous coating manufacturing source category. We proposed the NESHAP for both source categories on April 4, 2002 (67 FR 16154).

Today's action establishes final standards for miscellaneous coating manufacturing (40 CFR part 63, subpart HHHHH). Final standards for miscellaneous organic chemical manufacturing (40 CFR part 63, subpart FFFF) will be published separately.

D. What Are the Health Effects Associated With the Pollutants Emitted From Miscellaneous Coating Manufacturing?

The CAA was created, in part, "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of the population" (*see* section 101(b) of the CAA). These NESHAP will protect public health by reducing emissions of HAP from miscellaneous coating manufacturing facilities.

Miscellaneous coating manufacturing facilities emit an estimated 6,900 Mg/yr (7,600 tpy) of HAP. Approximately 30

percent of the HAP emitted by miscellaneous coating manufacturing facilities is toluene, 30 percent is xylene, and glycol ethers, methyl ethyl ketone, and methyl isobutyl ketone account for approximately 25 percent. The final rule reduces total HAP emissions from miscellaneous coating manufacturing facilities by 64 percent. As a result of controlling these HAP, the final NESHAP will also reduce emissions of volatile organic compounds (VOC). A summary of the potential health effects caused by exposure to these pollutants is presented in the preamble to the proposed rule (67 FR 16154).

E. How Did We Develop the Final Rule?

We proposed the NESHAP for the Miscellaneous Coating Manufacturing source category on April 4, 2002 (67 FR 16154) and provided an 85-day comment period. We received public comments on the proposed miscellaneous coating manufacturing NESHAP from 81 sources consisting of paint, ink, and adhesives manufacturers, industry trade associations, a federal government agency, an environmental group, and other interested parties. In addition, a public hearing was held, at which 8 of 11 speakers provided testimony related to the proposed miscellaneous coating manufacturing rule. A copy of each of the comment letters is available in Docket ID No. OAR–2003–0178.

The final rule reflects full consideration of all the comments we received on the proposed subpart HHHHH, as well as our reassessment of certain data in the rulemaking record. A detailed response to all comments is included in the BID for the promulgated standards (Docket ID No. OAR–2003–0178).

II. Summary of the Final Rule

A. What Are the Affected Sources and Emission Points?

The affected source for the miscellaneous coating manufacturing source category is the miscellaneous coating manufacturing operations at the facility. These operations include storage tanks, process vessels, equipment components, wastewater treatment and conveyance systems, transfer operations, and ancillary sources such as heat exchange systems.

The final standards for miscellaneous coating manufacturing cover vents from process vessels, storage tanks, wastewater, transfer operations, equipment leaks, and ancillary heat exchange operations. Total baseline HAP emissions for the miscellaneous coating manufacturing source category are estimated to be 6,900 Mg/yr (7,600 tpy).

B. What Are the Emission Limitations and Work Practice Standards?

Process Vessel Vents

For stationary process vessels with capacities greater than or equal to 0.94 cubic meters (m^3) (250 gallons (gal)) at existing sources, the final rule requires an overall reduction, adjusting for capture and control efficiency based on enclosure tests, as applicable, of at least 75 percent by weight for HAP with a vapor pressure greater than or equal to 0.6 kilopascals (kPa) (0.09 pounds per square inch absolute (psia)), and at least a 60 percent reduction by weight for HAP with a vapor pressure less than 0.6 kPa (0.09 psia). The final rule also provides an emissions averaging alternative for stationary process vessels at existing sources that are equipped with a tightly-fitting vented cover. The overall mass reduction in HAP emissions for vessels in the averaging group must be equal to or greater than the reduction that would have resulted if each of the covered vessels were vented to a control device that achieves a 75 percent emissions reduction for HAP with a vapor pressure greater than or equal to 0.6 kPa (0.09 psia) or a 60 percent emissions reduction for HAP with a vapor pressure less than 0.6 kPa (0.09 psia). The final rule requires that portable process vessels at existing sources with capacities greater than or equal to 0.94 m^3 (250 gal) be equipped with a cover. Stationary and portable vessels at new sources must be equipped with a tightly-fitting vented cover, and the vented organic HAP emissions must be reduced by at least 95 percent by weight. Alternatively, for stationary process vessels with capacities greater than or equal to 0.94 m^3 (250 gal) at existing and new sources and portable process vessels with capacities greater than or equal to 0.94 m^3 (250 gal) at new sources, you may install a tightly-fitting vented cover and vent emissions to a condenser operated at specified temperature limits to satisfy the overall control requirement. Another option for meeting the standards for stationary process vessels at existing sources is to use the vessels to produce coatings with less than 5 percent HAP by weight; no additional control of process vessel vents is required when producing such coatings.

We did not specifically request information on process vessels with capacities less than 0.94 m^3 (250 gal). Thus, we do not have information indicating that a sufficient number of sources are using control devices or other HAP emission reduction techniques to enable us to set a MACT floor based on such devices or techniques. Therefore, the MACT floor for process vessels with capacities less than 0.94 m^3 (250 gal) is no emissions reduction. We examined one regulatory alternative that would require the same 75 percent emissions reduction as for larger process vessels. We concluded that the total impacts of this alternative, including cost, non-air quality health and environmental impacts, and energy requirements, are unreasonable in light of the HAP emission reductions achieved. Thus, we did not develop standards for process vessels with capacities less than 250 gal.

Storage Tanks

The standards for storage tanks at existing sources require either organic HAP emissions reductions of 90 percent by weight or more, or the use of floating roofs, or vapor balancing if the storage tanks have capacities greater than or equal to 75 m^3 (20,000 gal) and store material with an organic HAP vapor pressure greater than or equal to 13.1 kPa (1.9 psia). The standards for storage tanks at new sources require either organic HAP emissions reductions of at least 80 percent by weight, the use of floating roofs, or vapor balancing if the storage tanks have capacities greater than or equal to 10,000 gal and store material with an organic HAP vapor pressure greater than or equal to 0.02 psia. The standards for new sources also require either organic HAP emissions reductions of at least 90 percent by weight, the use of floating roofs, or vapor balancing for storage tanks that have capacities equal to or greater than 75 m^3 (20,000 gal) but less than 94 m^3 (25,000 gal) and store material that has an organic HAP vapor pressure greater than or equal to 10.3 kPa (1.5 psia), and tanks with capacities greater than 94 m^3 (25,000 gal) storing material that has an organic HAP vapor pressure greater than or equal to 0.7 kPa (0.1 psia). The final rule does not include standards for storage tanks smaller than 20,000 gal at existing sources or for storage tanks smaller than 10,000 gal at new sources because the MACT floor for these tanks was determined to be no emissions reduction.

Wastewater

For existing sources, the final rule requires that wastewater containing a total partially soluble and soluble HAP load of 750 pounds per year (lb/yr) and a concentration of 4,000 parts per million by weight (ppmw) or greater be treated as hazardous waste or in an

enhanced biological treatment unit. The final rule also allows for offsite treatment provided the affected sources that ship their wastewater to an offsite facility for treatment as a hazardous waste note this fact along with the name of the facility to which the wastewater is shipped in their notification of compliance status report. If the wastewater is shipped offsite for treatment in an enhanced biological treatment unit, the offsite facility must comply with the monitoring, recordkeeping, and reporting requirements in subpart HHHHH. For new sources, the applicability triggers for control are more stringent, affecting all streams that contain partially soluble and soluble HAP at a concentration greater than or equal to 1,600 ppmw.

Transfer Operations

Standards for transfer operations at existing and new sources require 75 percent control of HAP emissions from product loading to tank trucks and railcars if the amount of material transferred contains at least 11.4 million liters per year (l/yr) (3.0 million gal/yr) of HAP, and the material has a HAP partial pressure greater than or equal to 10.3 kPa (1.5 psia). Acceptable control strategies also include routing displaced vapors back to the process, or the use of condensers operated below specified temperature limits.

Equipment Leaks

The final rule requires compliance with leak detection and repair (LDAR) programs for equipment leaks. Existing sources must comply with the sensory-based LDAR provisions of 40 CFR part 63, subpart R, the NESHAP for Gas Distribution Facilities. Alternatively, existing sources may comply with the LDAR program in 40 CFR part 63, subpart TT, or subpart UU (the National Emission Standards for Equipment Leaks—Control Level 1 and Control Level 2, respectively) because these alternatives are equivalent to or more stringent than the sensory-based LDAR program. New sources must comply with either the subpart TT or subpart UU LDAR provisions. For heat exchange systems at existing and new sources, the final rule requires a leak detection program, consistent with the program in 40 CFR 63.104 (the Hazardous Organic NESHAP (HON)).

Cleaning operations are considered part of the miscellaneous coating manufacturing operations at existing and new sources. Therefore, cleaning fluids are considered to be process fluids, and the requirements for process vessels, storage tanks, equipment leaks, and wastewater systems that apply to other process operations also apply to cleaning operations.

C. What Are the Testing and Initial Compliance Requirements?

To verify that the required reductions have been achieved, you must either test or use calculation methodologies, depending on the emission stream characteristics, control device, and the type of process vent. Initial compliance demonstration provisions for stationary process vessels at miscellaneous coating manufacturing sources reference the 40 CFR part 63, subpart SS, closed vent system and performance test provisions and the capture efficiency Method 204 in appendix M to 40 CFR part 51. Control devices handling greater than 9.1 Mg/yr (10 tpy) of HAP must be tested, while engineering assessments are allowed for control devices with lower loads and for condensers. Performance test provisions are based on worst case operating conditions for devices controlling process vents.

The initial compliance demonstration procedures reference 40 CFR part 63, subpart SS, for storage tanks complying using control devices and transfer operations, and 40 CFR part 63, subpart WW, for storage tanks complying using floating roofs.

D. What Are the Continuous Compliance Requirements?

The final rule requires monitoring to determine whether you are in compliance with emission limits on an ongoing basis. This monitoring is done either by continuously measuring HAP emissions reductions or by continuously measuring a site-specific operational parameter, the value of which you would establish during the initial compliance demonstration. These parameters are required to be monitored at 15-minute intervals throughout the operation of the control device. For control devices that do not control more than 1 tpy of HAP emissions, only a daily verification of the operating parameter is required, as is provided in 40 CFR part 63, subpart GGG. To demonstrate compliance with work practice standards, such as the requirement to maintain floating roofs, inspection of equipment serves as the monitoring demonstration.

E. What Are the Notification, Recordkeeping, and Reporting Requirements?

The final rule requires recordkeeping and initial and semiannual reporting. The initial notification is required within 120 days of the effective date of the NESHAP. That report, which is very brief, serves to alert appropriate agencies (State agencies and EPA Regional Offices) of the existence of your affected source and puts them on notice for future compliance actions. The precompliance report details compliance alternatives that require preapproval and is required 6 months prior to the compliance date. The notification of compliance status (NOCS) report, which is due 150 days after the compliance date of the NESHAP, is a comprehensive report that describes the affected source and the strategy being used to comply. The final rule also incorporates a number of provisions in subpart A of 40 CFR part 63 (General Provisions), among them the startup, shutdown and malfunction provisions.

III. Summary of Environmental, Energy, and Economic Impacts

A. What Are the Air Emission Reduction Impacts?

We estimate nationwide baseline HAP emissions from the miscellaneous coating manufacturing sources to be 6,900 Mg/yr (7,600 tpy). We project that the final rule will reduce HAP emissions by about 4,400 Mg/yr (4,900 tpy). Because many of the HAP emitted by miscellaneous coating manufacturing facilities are also VOC, the proposed NESHAP will also reduce VOC.

Combustion of fuels to generate electricity and steam will increase secondary emissions of carbon monoxide (CO), nitrogen oxides (NO_X), and sulfur dioxide (SO_2) by about 25 Mg/yr (27 tpy). These impacts were estimated assuming electricity is generated in coal-fired power plants and steam is produced in natural gas-fired industrial boilers.

B. What Are the Cost Impacts?

The cost impacts include the capital cost to install control devices and monitoring equipment, and include the annual costs involved in operating control devices and monitoring equipment, implementing work practices, and conducting performance tests. The annual cost impacts also include the cost savings generated by reducing the loss of product or solvent in the form of emissions. The total capital costs for existing sources are estimated to be $57 million, and the total annualized costs for existing sources are estimated to be $16 million. Total capital costs for new sources are estimated to be $1.3 million per new facility and total annualized costs are estimated to be $.25 million per new facility. Three new facilities were estimated in the first 3 years after promulgation of this rule.

We estimate that in the first 3 years after the effective date of 40 CFR part 63, subpart HHHHH, that the annual cost burden will average $3,500/yr per respondent for recordkeeping and reporting requirements for an estimated 129 sources. Most of these costs are for new and reconstructed sources that must be in compliance upon startup; other costs are for existing sources to prepare initial notifications and plans. In the fourth year after the effective date, existing facilities must begin to monitor and record operating parameters to comply with operating limits and prepare compliance reports. These activities will significantly increase the nationwide annual burden.

We expect that the actual compliance cost impacts of the NESHAP will be less than described above because of the potential to use common control devices, upgrade existing control devices, implement emissions averaging, or comply with the preset temperature limits for condensers. Because the effect of such practices is highly site-specific and data were unavailable to estimate how often the lower cost compliance practices could be utilized, we could not quantify the amount by which actual compliance costs will be reduced.

C. What Are the Economic Impacts?

The economic impact analysis shows that the expected price increase for affected output would be 0.3 percent as a result of the NESHAP for miscellaneous coating manufacturers. The expected change in production of affected output is a reduction of 0.1 percent as a result of the final rule. One plant closure is expected out of the 127 facilities affected by the final rule. It should be noted that the baseline economic conditions of the facility predicted to close affect the closure estimate provided by the economic model, and that the facility predicted to close appears to have low profitability levels currently. Therefore, no adverse impact is expected to occur for those industries that produce output affected by the NESHAP, such as paints, inks, and adhesives.

D. What Are the Non-Air Quality Health and Environmental Impacts and Energy Impacts?

We do not expect wastewater, solid waste, or hazardous waste to be generated from controlling HAP emissions from miscellaneous coating manufacturing facilities. Thus, we expect no non-air quality health impacts from controlling HAP emissions from miscellaneous coating manufacturing facilities. We expect the overall energy demand (*i.e.*, for electricity generation and steam production) to increase by an estimated 32,000 gigajoules per year (30.0 billion British thermal units per year (Btu/yr).

IV. Summary of Responses to Major Comments

A. What Changes to Applicability Did the Commenters Suggest?

Comment: A number of commenters opposed regulation of activities such as mixing additives and other ingredients, thinning, and adjusting tint by facilities that are the end-users of coatings and are subject to any of the surface coating NESHAP; several of the commenters described these activities as "affiliated operations," and they concurred with the definition and draft preamble language for the Paper and Other Web Coating (POWC) NESHAP that were discussed during POWC stakeholder meetings on May 22 and June 26, 2002.[1] For example, several of the commenters requested specific exemptions for affiliated operations at facilities subject to surface coating rules in subpart GG (National Emission Standards for Aerospace Manufacturing and Rework Facilities), subpart KK of 40 CFR part 63 (NESHAP for the Printing and Publishing Industry), and/or subpart JJJJ of 40 CFR part 63 (NESHAP: Paper and Other Web Coating). Another commenter requested an exemption for the onsite formulation and mixing of specialty, ablative coatings that are applied to space vehicles at a National Aeronautics and Space Administration (NASA) site and are exempt from control under subpart GG of 40 CFR part 63. Two commenters requested specific language in either the preamble or final rule to clarify that operations at facilities subject to subpart DDDD of 40 CFR part 63 (the plywood and composite wood products NESHAP) are not subject to subpart HHHHH of 40 CFR part 63. Another commenter also suggested extending the provision to all equipment associated with a process for which another 40 CFR part 63 standard has been promulgated. One commenter stated that end users, particularly those at facilities subject to subpart MMMM of 40 CFR part 63 (NESHAP: Surface Coating of Miscellaneous Metal Parts and Products), should be exempt because subpart MMMM already addresses emissions associated with the use of diluents at such facilities. Another commenter noted that the exemption in § 63.7985(a)(4) of operations that are part of an affected source under another subpart of 40 CFR part 63 should apply to end-users subject to subparts MMMM, IIII (auto surface), and PPPP (plastic parts and products) because affiliated operations are part of the affected sources under those rules. One commenter requested clarification that the exemption in § 63.7985(a)(4) is not limited only to operations that are required to implement controls under other standards.

Two commenters requested exemptions for affiliated operations at facilities subject to any of the surface coating NESHAP. According to the commenters, the exemption is necessary because we obtained no information on end-users while developing subpart HHHHH, some of the regulated community would not have an opportunity to comment on the proposal because some of the surface coating rules will not be published until after subpart HHHHH is finalized, and we considered emissions from affiliated operations in some surface coating source categories to be insignificant when we were developing the surface coating NESHAP. To exclude end users in general, one commenter recommended more clearly defining "coatings manufacturing" with a definition similar to that for "batch process" in subpart GGG of 40 CFR part 63, using a more narrow listing of Standard Industrial Classification (SIC) and North American Industrial Classification System (NAICS) codes, and adding specific exemptions for temporary activities such as mixing prior to painting a tank or structure at a major source.

Response: The final rule does not apply to activities conducted by end users of coating products in preparation for application. As noted by some of the commenters, we have decided to exempt affiliated operations at POWC facilities from subpart HHHHH. In the preamble to the final POWC surface coating MACT rule (67 FR 72330, December 4, 2002), we define affiliated operations at POWC facilities and indicate that they are part of the POWC source category, but they are not part of the POWC affected source for a variety of reasons. We also examined other surface coating rules, and determined that the exemption for affiliated operations should also be applied to sources that are subject to the printing and publishing rule (subpart KK), the aerospace manufacturing rule (subpart GG), the metal coil coating rule (subpart SSSS of 40 CFR part 63), and the miscellaneous metal parts and products rule (subpart MMMM). These five rules lack requirements for affiliated

[1] The final POWC NESHAP was published on December 4, 2002 (67 FR 72330).

operations, but affiliated operations were considered during the development of the rules and controls were determined not to be warranted. We have not extended this exemption to other surface coating rules (or certain other rules) that already include affiliated operations as part of the affected source under the applicable subpart because operations that are part of another affected source are exempt from the final subpart HHHHH according to § 63.7985(a)(4). One commenter's assumption that this exemption is not limited to those operations within another affected source that must implement controls is correct. Preparations for painting equipment or structures at a facility are not part of a manufacturing process and thus are not subject to subpart HHHHH.

Comment: Several commenters recommended clarifying the provision in § 63.7985(c)(3) of the proposed rule that would exempt all equipment associated with a process that has less than 5 percent HAP in process vessels. One commenter noted that this provision will not exempt all water-based coating manufacturing because the actual HAP content in the process vessel varies during the process. To be useful, this commenter stated the determination must be based on the HAP content of the final product. According to another commenter, the exemption should be based on "organic" HAP, and sources should be allowed to determine this percentage based on material safety data sheets (MSDS) or other available information as an alternative to chemical analysis. One commenter suggested that the exemption would be less confusing if it were applied to individual vessels rather than a "coating process" because equipment is generally associated with a specific process vessel and the definition of "process" is too broad. One commenter also stated that if a process vessel is not subject to control because its capacity is less than 250 gallons or the HAP emissions are less than 50 parts per million by volume (ppmv), then it is also reasonable that no other requirements should apply to any of the equipment associated with that process vessel (*i.e.*, the storage tank, equipment leak, and wastewater standards).

To minimize the compliance burden, one commenter requested exemptions for impurities and trace constituents present in quantities less than 0.1 percent by weight for carcinogens and less than 1.0 percent by weight for all other HAP, values which are consistent with the levels that must be provided on MSDS. The commenter stated that this would reduce the burden of determining the HAP content in a vessel for comparison with the 5 percent exemption level and for determining the HAP content in process vessel vents for comparison to the 50 ppmv limit.

Response: Under the proposed rule, whenever the contents of a process vessel contain less than 5 percent HAP by weight, the owner or operator would be exempt from all requirements for the process vessel and related equipment. Under the final rule, this provision has been replaced with a provision that provides for compliance with the stationary process vessel standards at existing sources when the vessel is being used to manufacture a coating that contains less than 5 percent HAP by weight. Our rationale for allowing the mass limit as an alternative standard is based on an estimated equivalent reduction in HAP emissions as compared to complying with the process vessel standards. Although we did not collect specific data on coatings content, we reviewed information that we collected in the development of standards for other coating manufacturing source categories. Based on these data, we concluded that we could achieve equivalent reductions in HAP emissions if coating manufacturers reduce the HAP content of final products to less than 5 percent by weight. In order to achieve equivalent reductions of 75 percent for process vessels, the average HAP content of coatings would have to be greater than 20 percent. Other data collection efforts support the conclusion. For example, the average HAP levels in all the solventborne coatings reported in the metal can and wood building products source categories are 32 and 28 percent, respectively. On a consumption-weighted basis, the HAP content of coatings in the metal can source category is 20 percent. Further, although the HAP content of many water-based coatings is less than 5 percent by weight, we did not include an explicit exemption for waterborne coatings because the HAP content of some waterborne coatings could be relatively high as long as the HAP is soluble in water.

In developing this alternative, we are persuaded by one commenter's suggestion to apply it to all vessels that are associated with the manufacturing of the final product. Although another commenter suggested that identifying all process vessels in a manufacturing process would be confusing, we think that this alternative would actually simplify compliance for most owners and operators. As long as the process vessel meets the definition in the final rule, an owner or operator could comply with the alternative standard when the vessel was processing material that would ultimately contain less than 5 percent HAP by weight as final product.

To further eliminate confusion, we clarified that the alternative applies only to process vessels. Storage tanks are not considered because their control requirements are determined based on the size of the tank and the HAP partial pressure, not whether the tank is used for an individual product. Transfer operations are not considered because their control requirements are determined based on the total annual quantity of coating that is loaded and its weighted average partial pressure. Equipment leaks also are not considered because the need for control is determined by the number of hours a particular component is in organic HAP service within the affected source, not the specific product being produced. Also, we did not exempt wastewater streams from process vessels smaller than 250 gal because we have no evidence that such vessels are cleaned by a different procedure than larger vessels or that the wastewater streams from such cleaning operations are kept separate.

We did not allow in the final rule a *de minimis* exemption of 0.1 or 1 weight percent HAP for trace constituents. This exemption is not relevant to the 5 weight percent HAP product alternative standard. Further, we do not feel that an additional *de minimis* or trace constituent exemption for compliance with the remaining standards is necessary.

Comment: One commenter recommended establishing applicability based on the affected source rather than the major source so that small coating manufacturing operations co-located with large surface coating sources are not subject to subpart HHHHH.

Response: We have not made the suggested change because the definition of a "major source" encompasses an entire plant site without being subdivided according to industrial classifications or activities. This definition is contained in section 112(a)(1) of the CAA, which includes "any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tpy or more of any HAP or 25 tpy or more of any combination of HAP."

Comment: One commenter requested an exemption for processes with uncontrolled emissions less than 10,000 lb/yr.

Response: We have not incorporated the requested exemption because it is not supported by the available data.

Comment: One commenter requested an exemption for waterborne coatings.

Response: We have not included an explicit exemption for waterborne coatings because the HAP content of a waterborne coating could be relatively high as long as the HAP is soluble in water. However, a source can reformulate coatings to contain less than 5 percent HAP as a means of meeting the process vessel vent emission limits and work practice standards for existing sources.

Comment: One commenter requested an exemption for low vapor pressure HAP.

Response: We did not provide an exemption for low vapor pressure HAP materials because we could not justify a no emissions reduction MACT floor for these materials based on our information. We did not collect information that could be used to support the concept that process vessels containing only low vapor pressure materials would not be controlled to the same levels as those containing higher vapor pressure materials. Further, we reviewed HAP storage tank throughput at facilities that reported control of process vessels, and noted that lower vapor pressure HAP, such as glycol ethers and ethylene glycol, were also used at these facilities. However, for the final rule, we have written the standard for stationary process vessels at existing sources to require 75 percent reduction only for HAP with a vapor pressure greater than or equal to 0.6 kPa. We made this change based on a revised analysis that showed the total impacts of the regulatory alternative are unreasonable for HAP with vapor pressures less than 0.6 kPa. Thus, these HAP must be controlled to the MACT floor level of 60 percent.

Comment: Three commenters requested clarification of how to determine whether 40 CFR part 63, subpart FFFF, or 40 CFR part 63, subpart HHHHH, applies to their operations. One commenter noted that the proposed definition of "coating manufacturing" is expansive and would unnecessarily subject facilities to both subparts.

Response: If the product being manufactured is a coating, and the manufacturing steps involve blending, mixing, diluting, and related formulation operations, without an intended reaction, then the process is subject to subpart HHHHH. If a reaction as well as various other operations are involved, then the process typically is subject to subpart FFFF. However, if the downstream formulation operations are distinct from the preceding synthesis process(es), (perhaps because the synthesized product is isolated and some of it is sold or transferred offsite), then the formulation operations are subject to subpart HHHHH, and the synthesis operations are subject to subpart FFFF. In the event that equipment used for manufacturing products in processes that are subject to subpart FFFF is also used for coating manufacturing operations that are subject to subpart HHHHH, then the primary use of the equipment determines applicability.

B. How Did We Develop the Standards?

Comment: According to one commenter, the lack of standards for all HAP is unlawful. The commenter cited hydrogen chloride (HCl), hydrogen fluoride, chlorine, potassium compounds, and maleic and phthalic anhydrides as examples of HAP that are not regulated. Another commenter recommended listing the HAP that are subject to the final rule, or cross-referencing Table 2 in subpart F of the HON.

Response: The standards in subpart HHHHH apply to all HAP that are used in coating manufacturing. Of the six compounds cited by the first commenter, only HCl and phthalic anhydride are listed in our database. All process vessels larger than 250 gallons that emit any HAP, including the six cited by the first commenter, must be controlled. We did not list the HAP in the final rule because the rule applies to all HAP listed in the Clean Air Act.

Comment: One commenter stated that the thresholds in the proposed subpart HHHHH unlawfully exempt emission points from control. According to the commenter, all emission points must be controlled.

Response: We disagree that every emission point at a major source must be required to reduce emissions. First, section 112(a) of the CAA defines "stationary source" (through reference to section 111(a)) as: * * * any building, structure, facility, or installation which emits or may emit any air pollutant * * *." (42 U.S.C. 7412(a)(3) and 7411(a)(3)). The General Provisions for the MACT program define the term "affected source" as * * * the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory for which a section 112(d) standard or other relevant standard is established pursuant to section 112 * * *." (40 CFR 63.2). Nothing in the definition of "stationary source" or in the regulatory definition of "affected source" states or implies that each emission point or volume of emissions must be subjected to control requirements in standards promulgated under CAA section 112.

Further, even under the commenter's interpretation of "stationary source," the Agency would still have discretion in regulating individual emission sources. Section 112(d)(1) of the CAA allows the Administrator to * * * distinguish among classes, types, and sizes of sources within a category or subcategory in establishing such standards * * *." We interpret this provision for the miscellaneous coating manufacturing NESHAP, as we have for previous rules, as allowing emission limitations to be established for subcategories of sources based on size or volume of materials processed at the affected source. Under the discretion allowed by the CAA for the Agency to consider sizes of sources, we made the determination that certain small-capacity and low-use operations (*e.g.*, smaller storage tanks) can be analyzed separately for purposes of identifying the MACT floor and determining whether beyond-the-floor requirements are reasonable. In addition, our MACT floor determinations for certain categories (*e.g.*, stationary process vessels), which are set according to section 112(d)(3) of the CAA, reflect the performance levels of the best-performing sources for which we had information, including vapor pressure thresholds or cutoffs below which the best-performing sources do not reduce emissions.

In general, our MACT floor determinations have focused on the best-performing sources in each source category, and they consider add-on control technologies as well as other practices that reduce emissions. As part of our information collection effort, we requested information on emission reduction measures. We generally did not receive information indicating that, for the emission points covered by 40 CFR part 63, subpart HHHHH, sources are currently reducing emissions through measures other than control technologies (*e.g.*, by fuel switching or raw materials or process changes) in sufficient numbers to support a MACT floor based on such measures. Accordingly, our standards include a performance level that represents the level achieved by the best control technology, and a threshold or cutoff that represents the lowest emission potential that is controlled by the best 12 percent of sources. Because the miscellaneous coating manufacturing source category is broad in terms of the

numbers and types of processing operations that are covered, one challenge was to develop a format by which all sources could be compared to each other to establish the best-performing sources. The performance level generally is of the format that can be applied to different types of control technology and processes and is generally consistent with existing State and local rules. Thus, different types of control technology and emission levels resulting from existing rules are captured in our MACT floor analysis. The cutoff allows owners and operators that have reduced their emissions below a certain level using one or more methods, including process changes to reduce or eliminate pollution at the source, to comply without additional control. Both performance levels and cutoffs have been set to account for variations in emission stream characteristics so that the standards can be applied consistently across the source category. This approach is consistent with the language of CAA section 112(d)(3) that requires us to set the MACT floor based on the best-performing 12 percent of existing sources.

C. Standards for Process Vessels

Comment: One commenter is not convinced that the existing source MACT floor for portable vessels should be only a cover because some portable vessels have a cover plus add-on control devices, and the actual performance of a covered vessel varies depending on the type of cover and other factors such as the HAP content and vapor pressure of the material being processed. Similarly, the commenter also objected to the existing source MACT floor for stationary process vessels, claiming that it does not reflect the actual performance of the best performers, and that we have not accounted for various factors that affect the performance.

Other commenters indicated that the existing source MACT floor is too stringent, or at the very least the control level should not be increased from 60 percent to 80 percent. For example, one commenter is not convinced that 6 percent, or the average of the best performing 12 percent, are controlled because many of the controls are applied only to vessels with specific characteristics rather than facility-wide. Another commenter questioned the validity of averaging uncontrolled sources with controlled sources in developing the MACT floor, and concluded that the floor should be no control. In response to a solicitation for comment regarding the setting of the floor based on the mean or the median of controlled vessels (*i.e.*, 60 percent versus 80 percent control, respectively), the commenter stated the mean is appropriate for several reasons: (1) There are sufficient data points to use the mean, (2) 60 percent represents a real-world technology, (3) EPA claimed in MACT floor memoranda that the mean is a better measure of the central tendency of the data, (4) EPA indicated during the stakeholder process that the mean would be used as it is representative of the industry and consistent with Congress' intent under the CAA, and (5) EPA guidelines for MACT determinations under CAA section 112(j) state that the MACT floor should be based on the mean unless there is a large discrepancy between the emission reductions achieved by available control options (which the commenter indicated is not the case here because control efficiencies are uniformly distributed between 2 and 99 percent). Numerous other commenters simply stated that the MACT floor has been adequately characterized, and should not be revised

Nearly all of the commenters objected to the apparent requirement for 100 percent capture of emissions for the new and existing source MACT floors for stationary process vessels, and they stated the floor control levels should specify only the efficiency of the control device. They expressed particular concern with a statement in the preamble to the proposed rule that indicated covers must be sealed and gasketed. The commenters noted that 100 percent capture is not feasible (and, therefore, not achieved in practice except possibly if using chemical reaction type vessels and closed solids charging systems) because covers often must include an opening for an agitator shaft, and vessels must be opened periodically to take samples, add material, and perform inspections. They also noted that this requirement contradicts our position in stakeholder meetings and background memoranda, and they concluded that the information collection request (ICR) data do not support a capture component to the floor (*i.e.*, only information about the control efficiency was requested). Even if actual capture efficiencies are allowed, they noted that the proposed overall capture plus control efficiency of 95 percent for process vessels at new sources would be virtually impossible to achieve because it effectively requires nearly 100 percent capture.

Numerous commenters objected to the requirement that emissions from cleaning are subject to control, at least if the vessel does not have an automatic wash system. One commenter noted that most vessels are cleaned by hand, but even vessels that have automatic wash systems must be opened for inspections after cleaning.

Response: We did not adjust the MACT floors for portable or stationary vessels. For portable vessels, the MACT floor is to equip each vessel larger than 250 gal with a cover. Our data show that less than 6 percent of portable vessels are equipped with add-on control devices, but over 90 percent are equipped with covers. We did not receive information regarding any other emission reduction techniques besides the use of covers or add-on control devices for portable vessels in responses to our ICR request for such information. Thus, we do not have information indicating that a sufficient percentage of sources to set a floor are using any emission reduction techniques other than covers, and we cannot support a floor determination based on the use of any other techniques.

Our database includes information for 4,628 stationary process vessels larger than 250 gal. Six percent of all stationary process vessels corresponds to a total of 278 vessels. A total of 368 vessels are equipped with some type of add-on device, or about 8 percent. The average control of the best-performing 12 percent (60 percent reduction) represents a technically feasible level of control and, therefore, we disagree with the assertion that the floor should be no control. The average control efficiency was determined for 368 vessels, including 278 controlled vessels and factoring in no control for the remaining 187 top records.

The commenters also contended that reported efficiencies do not consider capture efficiency. Of the 378 vessels that are controlled, over 278 (6 percent of the stationary process vessels) reported either direct ventilation to control devices, reported closed vent systems to control devices, or reported operating essentially 100 percent capture (routing building exhausts to an incinerator a capture system) and control. Therefore, we concluded that it is appropriate to set the existing source MACT floor for stationary process vessels larger than 250 gal on an overall control efficiency based on the reported efficiencies.

The new source MACT floors for portable and stationary process vessels larger than 250 gal are based on the best-performing source. For both portable and stationary process vessels, the best-performing source covers the vessels and vents emissions through a closed-vent system to a thermal incinerator with an overall control efficiency of 95

percent. Thus, the MACT floors are based on these conditions.

We recognize that basing MACT floors for stationary and portable vessels on capture and control does not overtly consider fuel, materials, process, or similar changes that could result in lower overall mass emissions. However, based on the information we have, we cannot accurately quantify a level of mass emissions that could result from such emission reduction techniques as a MACT floor and that could be achieved by all coating manufacturers given the variability in processing operations, the scale of processing operations, and products manufactured.

We did not specifically request information for portable or stationary process vessels with capacities less than 250 gal, and we do not have any such information. We set a MACT floor of no emissions reductions because we do not have information indicating that a sufficient percentage of sources are using emission reduction techniques or add-on controls to enable us to set a MACT floor.

The MACT floor for stationary process vessels at existing sources is based on overall control. Thus, the final rule specifies that these process vessels must either be equipped with tightly-fitting vented covers and closed vent systems meeting the requirements of subpart SS of 40 CFR part 63. We have decided to exempt some emissions releases that result from safety and hygiene practices because it is unlikely that these vents would reach the 50 ppmv concentration level defined to be a process vessel vent. The exemption also will relieve owners and operators from the burden of demonstrating that they meet the concentration level. Specifically, the definition of process vessel vent excludes flexible elephant trunk systems that draw ambient air (*i.e,* systems that are not ducted, piped, or otherwise connected to the unit operations) away from operators that could be exposed to fumes when vessels are opened. As an alternative, capture efficiency must be considered in the overall control efficiency determination if vessels are not equipped with tightly-fitting vented covers and closed vent systems. Opening of covers for addition of materials, sampling, etc., is included as part of the capture efficiency demonstration. For new sources, the final rule requires the use of tightly-fitting vented covers to controls; determining capture is not an option because, as the commenters noted, achieving 95 percent overall control would require nearly 100 percent capture.

Finally, we have not required control of cleaning that is accomplished manually. However, emissions resulting from automatic wash systems are required to be considered and controlled. Similarly, control is required for emissions resulting from flushing of lines or other equipment with solvent at the end of a batch because these are closed operations.

Comment: Most of the commenters stated that the standard for stationary process vessels at existing sources should be set at the MACT floor. According to the commenters, the cost of the regulatory alternative is unreasonable because our analysis overstated the uncontrolled emissions, used unrealistic model plant and emission stream characteristics, and understated the costs.

The commenters disputed our estimate of uncontrolled emissions for a number of reasons. Their primary argument is that using the Emission Inventory Improvement Program (EIIP) equations would give a more accurate estimate of the HAP emissions than the AP–42 VOC emission factor. They noted that EPA has identified the EIIP equations as the preferred method, companies use them as the basis for title V permits, States prefer them for permitting and compliance demonstrations, and EPA specifies the use of similar equations in 40 CFR part 63, subpart GGG. Conversely, they noted that the AP–42 VOC emission factor is inappropriate because, typically, half or less of the VOC is HAP; the factor is meant to estimate emissions from the entire process, not just stationary process vessels; and the industry has shifted to less volatile solvents in recent years. One commenter provided data showing that the EIIP methodology, calibrated with stack testing, results in emissions equal to about 0.2 to 0.6 percent of HAP throughput. Another commenter also noted that our baseline emissions estimate exceeds facility-wide Toxic Release Inventory (TRI) emissions (which also include non-HAP, fugitives, emissions from portable vessels, and emissions from other processes) by factors between 3 and 36. The commenter also does not believe that 5 facilities generate half of the emissions in the source category. For example, the commenter contacted the facility in our database with the highest estimated emissions and determined that only 2 percent of the solvent throughput is attributable to the manufacture of inks and coatings; the remainder is associated with the distribution of paint thinners and paint reducers.

The commenters considered many of the model plant parameters and emission stream characteristics to be unrealistic. Related to their concerns that 100 percent capture is infeasible, they noted that local exhaust ventilation systems usually convey large volumes of air to minimize worker exposure, reduce the risk of fires, and contain dust. As a result of the high air flow rates, they noted that the HAP concentration is much lower than the 40,000 ppmv in our impacts analysis. Based on stack test data, one commenter stated that actual concentrations are less than 1,200 ppmv. Another commenter indicated the concentrations are in the hundreds of ppmv. The commenters noted that for toluene, the surrogate HAP used in our analysis, 40,000 ppmv is within the flammable range, which poses safety concerns and would necessitate the use of expensive fire/explosion prevention equipment and inerting systems. One commenter stated that xylene should be used as the surrogate HAP because it is now four times more prevalent than toluene. The commenters noted that the model included emissions only from filling, but emissions also result from other process steps such as mixing, gas sweep, heat-up, holding, emptying, and cleaning. They also disagreed with the assumption that a control device needs to be sized to handle emissions from only 5 vessels at a time. For example, one commenter indicated that many facilities have dozens of process vessels being filled simultaneously (as much as 50 to 75 percent of all vessels onsite). Another commenter noted that each vessel would have to have its own condenser because a common header poses safety and product quality risks. One commenter objected to the assumption that condensers can be used to control all process vessels because water cooled condensers will not be effective for the low concentration (and high flow) streams in the industry, and condensers are meant to operate for long periods of time under steady-state conditions, not intermittently during filling steps.

According to this commenter, our cost analysis included a number of errors and deficiencies. For example, the analysis did not include the cost to replace existing vessels with chemical reaction type tanks and raw material addition equipment, which would be needed to even approach 100 percent capture. If cleaning emissions must be controlled, the commenter indicated that a cost for automatic wash systems must be included. Fire and safety instrumentation and systems would be needed since the model operates with toluene in the flammable range.

Even if condensers are assumed to be applicable for all process vessels (which

the commenter opposed), the commenter noted the following concerns with the analysis: (1) Solvent recovery is not feasible because the condensed solvent is contaminated with condensed water vapor (and must be disposed of as hazardous waste); (2) the amount of coolant piping and valves per condenser is underestimated; (3) baghouses will be needed upstream of the condenser to remove particulate if solid materials are added to the process vessel; (4) two-stage rather than single stage condensers will be required to operate at the model operating temperature of 32°F; (5) the refrigeration unit needs to be large enough to service 75 percent of the facility's condensers; and (6) costs are needed for foundations and supports, electrical components, instrumentation, insulation, site preparation, and buildings.

The commenter also stated the analysis understates the incremental cost effectiveness relative to the floor because it used uncontrolled emissions rather than baseline emissions; the condenser count is incorrect for more than 30 facilities; the costs for covers were not included for the vessels that do not currently have them; the results reported in $/Mg are actually in $/ton; and the saturation toluene concentration is 37,370 ppmv, not 40,000 ppmv. Based on a sensitivity analysis that incorporates some of these suggested changes and looks at a range of emission stream flows, HAP concentrations, and control devices, the commenter estimated that costs are at least 5 to 20 times higher than our estimate. The commenter noted that these estimates are conservatively low because they do not include costs for chemical reaction tanks, raw material addition equipment, and fire safety equipment; they also do not consider the impact of using a less volatile surrogate HAP on emission reductions. Even without changing the elements in the analysis, the commenter stated that we should consider the average facility cost effectiveness value rather than the nationwide value because a majority of the facilities in the analysis have incremental costs above $3,500/Mg; typically, these facilities are small or produce predominately water-based coatings.

Response: We agree that the EIIP guidance is appropriate for use in estimating emissions from coating manufacturing process sources. We did not use EIIP models because we did not have the level of detail required to conduct emission estimates from the facilities in our database. We considered the 1 to 2 percent solvent throughput values contained in the Chapter 5 AP–42 documentation to be adequate in characterizing the level of emissions for nationwide impacts. And, although one commenter indicated that the EIIP methodology would result in HAP emissions between 0.2 and 0.6 percent of HAP throughput for his facilities, this commenter also calculated a loss of 1.3 percent for one facility due to more conservative assumptions associated with that facility's operations. While our 1 percent factor may be conservative, it was a reasonable value for the impacts analysis. The commenters noted that the AP–42 VOC emission factor is inappropriate because, typically, half or less than half of the VOC is HAP; however, because the factor is based on HAP throughput, only the portion of solvent that is HAP is considered, and therefore, basing the emissions on HAP throughput appropriately limits the estimates to HAP, not VOC. Regarding the comment that our baseline emissions estimate exceeds facility-wide TRI emissions, we note that one commenter indicated that baseline HAP emissions total 6.3 million pounds for all 127 facilities in the database, as compared to our estimate of 13.5 million pounds, roughly a factor of two. Because of the uncertainty associated with estimation methods, and varying operational practices from site to site, these estimates are reasonable.

Regarding assumptions made in our cost analysis of the regulatory alternative for stationary process vessels, we note that the low overall control efficiency (75 percent) enables numerous control scenarios for achieving compliance, including those scenarios where air flows are increased to enable proper capture of emissions from opening in vessels. While we did not cost out this alternative for presentation of impacts, it would likely be a scenario employed by owners and operators. As discussed previously, the two predominant types of control devices are condensers and thermal incinerators. Therefore, to further examine the cost effectiveness of the regulatory alternative, we evaluated the cost effectiveness of applying a capture and control system using thermal incineration. We started with the analyses generated by one commenter, which are based on EPA's COST–AIR control cost spreadsheets for regenerative thermal oxidizers and included the commenter's estimated installation costs for ductwork, auxiliary equipment, vapor collection systems and lids for tanks. The commenter also noted that cost calculations did not include chemical reaction type tanks to approach 100 percent capture, automatic cleaning systems, raw material addition equipment, baghouses or fire control system costs. We also excluded chemical reaction tanks and raw material feed equipment because they would not be needed when high air flow rates and a capture system are used to collect and route emissions from the existing tanks to a thermal incinerator.

The commenter apparently generated an industry-wide cost effectiveness estimate for thermal oxidizers from average flow and concentration value ranges. The commenter did not provide enough information to methodically step through the procedure to arrive at the resulting value of $16,138/Mg. In fact, it was not clear whether the commenter selected ranges of concentrations and flowrates corresponding to 36 stack test data points and then calculated cost effectiveness values from the midpoints of these ranges or whether the commenter calculated the cost effectiveness of 36 stack test data points and developed an arithmetic average. We note that the table supplied by the commenter identifying concentration and flowrate ranges indicates that flowrates and concentrations were considered to be independent of each other and produced a counterintuitive result that flowrate and concentrations would be directly proportional, as opposed to inversely proportional. For example, the low flow rate range midpoint values were listed as 300 cubic feet per minute (cfm) and 50 ppmv, while the high flowrate range midpoints were listed as 7,500 cfm and 1,750 ppmv. We would expect that as flowrates increased, concentrations would decrease, and we concluded that an analysis resulting from the use of these ranges would likely not represent the actual emission stream characteristics. Further, we estimated the cost effectiveness of incinerator controls for these 5 ranges and obtained values ranging from $290,000/Mg for the 300 cfm, 50 ppmv concentration stream to $400/Mg for the stream with 7,500 cfm and 1,750 ppmv, indicating a wide range of cost effectiveness.

We reasoned that a more representative evaluation would be based on a selected model emission stream. This model stream was based on a common value resulting from the histogram presented by the commenter; we selected as model emission stream characteristics a flowrate of 5,000 standard cubic feet per minute (scfm) waste gas and a concentration of 500 ppmv. Our analysis indicated that the cost effectiveness value for this model stream would be $2,200/Mg, assuming only 75 percent reduction of potential HAP emission was achieved. Based on

this result, we concluded that an evaluation of capture and control systems using thermal incineration would result in reasonable costs.

Our original analysis that was the basis for selecting the 75 percent regulatory alternative based on condenser control is still valid and the total impacts, considering the emission reduction achieved as well as cost, non-air quality health and environmental impacts, and energy requirements, are reasonable. Thus, we continue to base the standard for stationary process vessels at existing sources on the regulatory alternative. However, the commenter has pointed out valid concerns regarding our assumptions. Upon review, we agree that we mistakenly overestimated reductions from the regulatory alternative by approximately 15 percent from the uncontrolled levels. Therefore, our estimated total reductions for the regulatory alternative should be on the order of 4,400 Mg/yr, not 5,000 Mg/yr. The revised incremental HAP reduction achieved by the regulatory alternative is about 1,000 Mg/yr, and it reduces costs by an estimated $130/Mg of HAP controlled. The incremental electricity consumption to operate the refrigeration unit for the condensers is about 1.7 million kilowatt hours per year (kWh/yr), and the fuel energy to generate the electricity is about 16 billion Btu/yr. Total CO, NO_x, and SO_2 emissions from combustion of the additional fuel to generate the electricity is 14 Mg/yr. There would be no wastewater, solid waste, or other non-air quality health or environmental impacts.

Regarding concerns expressed by the commenter on the system design requirements, such as the required size of the refrigeration units, the amount of piping and valves per condenser, and various installation cost elements, we recognize that these costs could be higher, depending on the site specific situation. In general, the costs would increase for the MACT floor condenser system as well as the regulatory alternative condenser system. The basis for selecting the 75 percent regulatory alternative is that the incremental cost between the MACT floor of 60 percent and the regulatory alternative is reasonable when considered in light of the non-air quality health and environmental impacts and energy requirements. In our original analysis based on condensation of toluene, the difference in total annual cost of the two model systems, one rendering an exit gas temperature of 36°F and one rendering an exit gas temperature of 50°F, was about the same, $45,100 for the regulatory alternative, and $43,417 for the MACT floor alternative; our costs did not specifically assume that the condenser system rendering an outlet gas temperature of 36°F would require a precooler; however, our conservative approach to estimating condenser costs based on a minimum surface area would account for the precooler costs, since the calculated surface area of the model condenser system was lower than the minimum size for which costs are available. Given all the cost elements, we note that the significant factor in annualized cost differences between the two alternatives is the recovery credit, which for the regulatory alternative was $37,063 while the recovery credit for the MACT floor alternative was $29,650. When subtracted from the total annual cost, the annualized cost for the regulatory alternative was $8,038, while the annualized cost for the MACT floor alternative was $13,766. Because cost effectiveness is expressed as total annualized cost divided by emissions reductions, recovery credit factors in not only by lowering the total cost of the option, but increases the denominator in the cost effectiveness term. The incremental difference between the two models, and also between the nationwide impacts that were essentially extrapolated from these two models, is negative. Further, the effect of the recovery credit essentially drives this decision, and is valid for our analysis. We assumed that each vessel would be equipped with a condenser and the condensed material could be returned directly to the vessel without further refinement; we do not agree that cross contamination would be a problem under this scenario; further, moisture generated from condensation of humid air does not appear to be a concern currently as indicated by the predominance of air systems and lack of nitrogen blanketing systems on storage tanks.

The commenters suggested that our cost analysis would have yielded different conclusions had we designed the model condensation systems for xylene, rather than toluene. We agree that cost effectiveness of implementing the model condensation systems largely depends on emission potential, which in turn varies according to the volatility of the HAP materials. Therefore, we decided to expand the commenter's issue and determine the HAP materials for which incremental costs for the 75 percent regulatory alternative are reasonable. We conducted an additional analysis on a model set of emission events consisting of identical processing steps, but processing a different HAP. For the analysis we evaluated the following HAP: Toluene, xylene, cumene, phenol, and ethylene glycol. These compounds represent a range of vapor pressures for common HAP in the industry. We found that the incremental cost impacts of going above the MACT floor are unreasonable for HAP with vapor pressures less than that of cumene. Therefore, we revised the regulatory alternative and standard for stationary process vessels at existing sources to include a HAP vapor pressure threshold of 0.6 kPa at 25°C. Emissions of HAP with vapor pressures above the threshold must be controlled to the regulatory alternative level of 75 percent, whereas HAP with lower vapor pressures must be controlled to the MACT floor level of 60 percent. About 1 percent of the total HAP throughput in the industry consists of HAP with vapor pressures below the threshold; thus, we did not revise the incremental impacts for the regulatory alternative.

Note that we could not do a similar analysis for thermal incinerators because the efficiency of incinerators is generally assumed at 98 percent, and the analysis becomes dependent on assumptions made about incremental costs of capture efficiency. Instead, we assumed that the incremental analysis based on condenser control alone could also be used to justify the regulatory alternative.

We examined the feasibility of a regulatory alternative for portable process vessels with capacities greater than or equal to 250 gal at existing sources that would require the same 75 percent overall control as the regulatory alternative for stationary process vessels with capacities greater than or equal to 250 gal at existing sources. Using the same condenser cost analysis, we concluded that the total impacts of this option are unreasonable in light of the emissions reductions achieved. The incremental HAP reduction achieved by this beyond-the-floor option is approximately 400 Mg/yr, and the incremental cost was estimated to be approximately $21,000/Mg of HAP controlled. In addition, electricity consumption to operate refrigeration units would increase from zero at the MACT floor to nearly 2.0 million kwh/yr. Fuel consumption (coal) to generate the electricity would increase by more than 19.0 billion Btu/yr; collectively, CO, NO_x, and SO_2 emissions would increase by about 16.5 Mg/yr; and there would be no wastewater, solid waste, or other non-air quality health or environmental impacts.

We also evaluated a regulatory alternative for portable and stationary process vessels smaller than 250 gal at existing sources that would require the

same 75 percent overall control as the regulatory alternative for stationary process vessels larger than 250 gal at existing sources. We do not know the number of such vessels or their size distribution. Therefore, we conducted the analysis for a model 250 gal vessel with a tightly-fitting vented cover at baseline that is used in the production of a coating that is manufactured using toluene. As for the other analyses, we assumed the vessel is controlled using a condenser to meet the regulatory alternative, and the condenser can be served by the same refrigeration unit as for the stationary process vessels. We concluded that the total impacts of this alternative are unreasonable in light of the emission reduction achieved. The incremental HAP reduction achieved by this beyond-the-floor alternative is 0.07 Mg/yr, and the incremental cost is over $25,000/Mg of HAP controlled. If the vessel at baseline does not have a tightly-fitting vented cover, the baseline emissions would be greater by an unknown amount, but the total costs would still be unreasonable. We also assumed that there would be no additional electricity or energy impacts because they are based on sized refrigeration systems, and addition of one or more vessels smaller than 250 gal would not require additional refrigeration capacity. Also, there would be no wastewater, solid waste, or other non-air quality health or environmental impacts.

Comment: One commenter requested flexibility in the control requirements for process vessels. The commenter noted that the proposed standard was tailored to the use of condensers on every process vessel, but it is not suited for the use of other control technologies or varying control levels among process vessels. The commenter also urged us to provide flexible averaging provisions that would allow different levels of control on different vessels while achieving overall control equivalent to that achieved by requiring the same control efficiency for each vessel. Furthermore, the commenter stated the proposed emissions averaging provisions are not useful because most vessels are not larger than 10,000 gallons; too few emission points are allowed in the average; it is too complex and burdensome; submitting a plan in the precompliance report 18 months before the compliance date is infeasible because facilities would not have determined how to comply by that date, and the requirement to obtain approval prior to making changes is cumbersome and restricts operations; it does not account for changes in the mix of processes being run; and it should be available for use at anytime, not just when demonstrating initial compliance.

Response: The final rule includes an emissions averaging option for stationary process vessels at existing sources that may address the commenter's concerns. To demonstrate initial compliance with the emissions averaging option, an owner or operator must estimate three sets of emissions for each vessel in the averaging group. First, the owner or operator must determine the uncontrolled emissions. Procedures for estimating uncontrolled emissions are specified in § 63.1257(d)(2), except that for purging events the final subpart HHHHH specifies a procedure for estimating the specific partial pressure of each HAP rather than allowing an assumption of saturation or 25 percent of saturation. Second, the owner or operator must estimate emissions from each vessel in the averaging group as if it were controlled in accordance with the percent reduction standard (*i.e.*, 60 percent or 75 percent reductions depending on the vapor pressure of the HAP in the emission stream). Third, the owner or operator must determine the actual emissions, which may range from uncontrolled for some vessels to control levels significantly higher than those determined in the previous step. The owner or operator must include these data and calculations in the precompliance report along with rationale for why the sum of the actual emissions on a quarterly basis will be less than the sum of the emissions if 60 percent or 75 percent, as applicable, were achieved for each individual vessel. To demonstrate ongoing compliance, the owner or operator must track the number of batches produced, calculate the quarterly actual emissions and emissions under the regular percent reduction standard for each vessel, and sum the two sets of quarterly emissions. Compliance is demonstrated if the sum of the actual emissions is lower than the sum of emissions under the regular percent reduction standard.

D. Standards for Storage Tanks

Comment: One commenter stated the MACT floor for storage tanks was determined incorrectly because we did not consider the actual performance of scrubber controls. The commenter also stated that the standard must be revised because tank capacity and HAP partial pressure cutoffs are illegal.

Response: None of the storage tanks containing organic HAP at the surveyed facilities was controlled with a scrubber. Therefore, the MACT floors for both existing and new sources are based on the actual reported performance of sources' controls and our consideration of whether sources are reducing emissions by other means besides controls.

Regarding tank capacity cutoffs, we considered two subcategories of storage tanks in our floor analysis: tanks with capacities less than 10,000 gal and storage tanks with capacities greater than or equal to 10,000 gal. We did not specifically request information for storage tanks with capacities less than 10,000 gal, and we did not receive any information about such smaller tanks. However, since the costs relative to the amount of control achieved tend to increase as the size of the storage tank decreases, we consider it highly unlikely that the industry is reducing emissions from tanks with capacities smaller than 10,000 gal when they are not reducing emissions from tanks with larger capacities. Thus, we concluded that the existing source and new source MACT floors for storage tanks with capacities less than 10,000 are no emissions reduction. We did not set beyond-the-floor standards for these smaller tanks because the total impacts to reduce emissions from storage tanks smaller than 20,000 gal were found to be unreasonable, and impacts for smaller tanks would be even less favorable.

With respect to storage tanks with capacities greater than or equal to 10,000 gal, fewer than 6 percent of the storage tanks in our database use controls or reduce emissions by any other means. Thus, we concluded that the existing source MACT floor for all storage tanks with capacities greater than or equal to 10,000 gal is no emissions reduction.

In setting the MACT floor for existing sources, we considered whether some facilities may implement emission reduction measures to reduce emissions from storage tanks, instead of using control technologies. Internal and external floating roofs are used to minimize emissions in many other industries, and vapor balancing when filling the tank is another common technique in other industries. However, we did not obtain any information in the responses to the ICR or from other resources that such measures are being used in the miscellaneous coating manufacturing industry. Another factor that can affect the emissions level is the color of the tank, but we have no information to suggest that any facilities are not already using the most favorable color scheme. Also, we have no information that any other measures are being used to reduce emissions. Therefore, because we lack information indicating that a sufficient number of storage tanks employ measures other

than control technologies to reduce HAP emissions to set a floor, we were unable to set a MACT floor based on emission reduction measures.

We examined two regulatory alternatives for storage tanks with capacities greater than or equal to 10,000 gal at existing sources, both of which would require the use of either a floating roof or venting to a control device that reduces emissions by 90 percent. The first alternative would apply to storage tanks with capacities greater than or equal to 20,000 gal that store material with a HAP partial pressure greater than or equal to 1.9 psia. The second alternative uses a size cutoff of 10,000 gal with the same HAP partial pressure cutoff. We set the standard at the level of the first regulatory alternative because, considering the level of emission reduction achieved, the total impacts of that alternative were determined to be reasonable, whereas the total impacts of the second alternative were determined to be unreasonable. Specifically, the first regulatory alternative reduces HAP emissions by 2.5 Mg/yr at an incremental cost of $2,700 to $4,900 per Mg of HAP controlled, depending on the characteristics of the tank. In addition, because this option can be achieved by using floating roofs, there are no non-air quality health or environmental impacts, including wastewater impacts and solid waste impacts, and no energy impacts. The second alternative reduces emissions by 7.5 Mg/yr at an incremental cost of at least $17,000 per Mg of HAP controlled, depending on the characteristics of the tank. The second regulatory alternative also has no non-air quality health or environmental impacts, including wastewater impacts and solid waste impacts, and no energy impacts for tanks that can be controlled with floating roofs. However, horizontal tanks (all of which in our database are smaller than 20,000 gal) must be controlled with an add-on control device such as a condenser. The incremental electricity consumption to run the condensers and fuel energy consumption to generate electricity would be 31,000 kwh/yr and 300 million Btu/yr, respectively. Total CO, NO_X, and SO_2 emissions from combustion of additional fuel to generate the electricity would be about 0.26 Mg/yr. There would be no wastewater, solid waste, or other non-air quality health and environmental impacts.

The new source MACT floor for storage tanks is based on the control achieved by the best-performing source. The proposed floor consisted of 90 percent control of emissions from storage tanks with capacities greater than or equal to 20,000 gal that store material with a HAP partial pressure greater than or equal to 1.5 psia and 90 percent control of emissions from storage tanks with capacities greater than or equal to 25,000 gal that store material with a HAP partial pressure greater than or equal to 0.1 psia. However, another facility reduces emissions by 80 percent from storage tanks with capacities of 10,000 gal that store material with a HAP vapor pressure of 0.02 psia. Upon further consideration since proposal, we determined that we cannot exclude these tanks from the floor analysis simply because the HAP vapor pressure is extremely low. Thus, the revised new source MACT floor for storage tanks consists of venting through a closed-vent system to a control device that reduces HAP emissions by at least 80 percent for storage tanks with a capacity greater than or equal to 10,000 gal that store material with a HAP partial pressure greater than or equal to 0.02 psia; the new source floor also consists of venting emissions through a closed-vent system to a control device that reduces HAP emissions by at least 90 percent for storage tanks with either capacities greater than or equal to 20,000 gal that store material with a HAP partial pressure greater than or equal to 0.1 psia or capacities greater than or equal to 25,000 gal that store material with a HAP partial pressure greater than or equal to 1.5 psia. Each of these new source standards reflects, or is equivalent to, the performance of the best-controlled source because the control levels for existing tanks increase with both increasing tank capacity and increasing HAP partial pressure.

The revised emission limits for storage tanks at new sources are based on the MACT floor because the MACT floor is more stringent than the second regulatory alternative for existing sources, which we determined to have unreasonable impacts.

E. Standards for Wastewater

Comment: Four commenters disagreed with our determination that the MACT floor for wastewater is HON-equivalent management and treatment procedures for wastewater that contains more than 4,000 ppmw of HAP listed in Table 9 to 40 CFR part 63, subpart G. One commenter stated that the floor should be recalculated to be based on the actual performance of the best sources, not simply set at the median concentration of controlled streams. According to one commenter, the floor should be no control because no add-on control is used by more than 6 percent of all wastewater streams. One commenter indicated that we have obtained accurate information on 30 wastewater streams, and all of the data must be used in setting the floor, including data for streams that contain less than 1,000 ppmw of HAP and streams that contain only inorganic HAP. Further, the commenter stated that flow is needed as well as concentration to determine the best performers. Flow is needed to convert concentrations to mass loadings, and it, or total volume, has been used to determine applicability in past rules and is the determining factor in disposal costs. According to the commenter, our assumptions that coating manufacturing facilities are only small quantity generators, and only the concentration drives the cost of disposal, are incorrect. The commenter noted that our database includes wastewater streams that have higher flows than the five top-performing streams that we used to set the MACT floor, but these streams are not sent offsite for treatment because the cost to do so would be prohibitive. In addition, if our assumption that concentration drives the cost of disposal were true, the commenter stated that other streams in the database with concentrations similar to those of the top 5 streams would also be treated offsite, but they are actually treated onsite, sent to a publicly-owned treatment works (POTW), or sent offsite for solidification. Taking all of these factors into account, the commenter concluded the floor should be no control.

The commenter also provided additional comments in the event that we maintain that a floor exists and develop a standard, despite their objections noted above. First, the commenter stated that applicability thresholds must be based on the mean rather than the median because our hierarchy is to use the mean first when it results in a standard that matches real world technology. Second, if the standard still requires management and treatment procedures like those in the HON, the commenter requested an exemption from the steam stripping requirement for streams containing soluble HAP because steam stripping is inefficient and expensive for such streams; the commenter also stated that enclosed sewers are unnecessary for such streams. Third, two commenters requested that offsite RCRA waste treatment facilities not be required to certify that they will meet the requirements for wastewater in the final rule because such facilities are already stringently controlled. One commenter was concerned that RCRA facilities may

decline to accept wastewater if they are unnecessarily burdened with compliance requirements under the final rule. The commenter noted that a similar change was made recently to the NESHAP for Publicly Owned Treatment Works (POTW) in response to litigation.

Response: The miscellaneous coating manufacturing database contains ten streams from nine facilities. The 30 streams cited by one commenter was a preliminary draft value that was subsequently changed because it was incorrect.

After consideration of the comments, we decided to make two changes to the MACT floor analysis. First, to simplify the analysis, we have focused on only the actual management and treatment techniques used for the top performing five streams rather than calling them HON-equivalent. All five of these streams are collected and shipped offsite for destruction by combustion at a RCRA hazardous waste treatment facility. Second, we have decided that specifying only a concentration cutoff for determining which streams are subject to control is insufficient. Specifying only the concentration means even very small streams would be subject to control as long as the concentration of HAP listed on Table 9 of the HON (*i.e.*, partially soluble and soluble HAP in the final rule) is greater than or equal to 4,000 ppmw, but this is inconsistent with the statutory requirement to base the floor on the average of the top five streams. We considered specifying either load or flow rate in addition to the concentration, and we decided that load is the best choice. For the top five streams, the load tracks better with the concentration (*i.e.*, ranking the controlled streams by increasing load is the same as ranking by increasing concentration).

Of the top five streams, the median stream has a HAP concentration of 4,000 ppmw and a HAP load of 750 lb/yr. We continue to use the median rather than the mean because the median better represents the central tendency of the data. The top five streams (as well as the other five streams in the database) are skewed towards low concentrations; three of the five have relatively similar low concentrations, but the other two streams have concentrations ten or more times higher. A mean would be closer to the midpoint of the range, but it would not represent the bulk of the data. Therefore, the revised existing source MACT floor for wastewater consists of treatment as a hazardous waste for all streams with partially soluble and soluble HAP at a concentration greater than or equal to 4,000 ppmw and a load greater than or equal to 750 lb/yr. We estimate that a standard based on the MACT floor will reduce HAP emissions by 12.9 Mg/yr (14.2 tpy) at a cost of $306,000 per year.

The revised new source MACT floor is based on the requirements for the best performing stream, which is a stream that contains 1,600 ppmw and 12 lb/yr of partially soluble and soluble HAP. Since this load is negligible, the new source MACT floor consists of treatment as a hazardous waste for wastewater streams that contain partially soluble and soluble HAP at a concentration greater than or equal to 1,600 ppmw at any load.

In setting the MACT floor, we considered whether some facilities may implement emission reduction measures other than control technologies to reduce HAP emissions from wastewater. We requested information on emission reduction measures in our CAA section 114 information collection request. Several facilities reported that they have implemented changes in the type or quantity of cleaning solution used, or in the method of cleaning. However, we do not know how effective these changes were in reducing HAP emissions, and we have no information to conclude that similar measures could be implemented by the facilities that reported HAP in their wastewater. Further, some HAP in the wastewater is HAP that is used in coatings products, and this HAP cannot be reduced without impacting the coating products produced. Therefore, we were unable to set a MACT floor based on emission reduction measures other than treatment.

We examined one regulatory alternative beyond the floor for existing sources that would require treatment as a hazardous waste for wastewater containing partially soluble and soluble HAP at a concentration greater than or equal to 1,000 ppmw and a load greater than or equal to 100 lb/yr. We concluded that the total impacts of this alternative are unreasonable because the incremental cost would be about $280,000/Mg; it would increase electricity consumption by 640 kwh/yr; increase fuel consumption by 182 million Btu/yr; and increase CO, NO_X, and SO_2 emissions by 0.02 Mg/yr. There would be no wastewater or solid waste impacts. Therefore, the standard for wastewater in the final rule is based on the revised MACT floor.

In addition, analyses for the HON and other projects concluded that enhanced biotreatment for soluble HAP compounds could achieve reductions as high as 99 percent. Because wastewater containing soluble HAP is generated at miscellaneous coating manufacturing facilities, the final rule also allows onsite or offsite treatment in an enhanced biological treatment unit as an effectively equivalent alternative for soluble HAP. This alternative also may prove to be less costly than treatment as a hazardous waste for high-volume wastewater streams. Finally, we agree with the comment that Resource Conservation and Recovery Act (RCRA) facilities do not need to certify that they are meeting the requirements of subpart HHHHH; therefore, the final rule requires affected sources that ship their wastewater to an offsite facility for treatment as a hazardous waste to note this fact along with the name of the facility to which the wastewater is shipped in their notification of compliance status report.

F. Standards for Equipment Leaks

Comment: One commenter objected to our determination that the MACT floor is a LDAR program. According to the commenter, the actual performance of the best sources was not determined, and the selected program was simply borrowed from another rulemaking. If we make a determination of the floor based on the actual performance of relevant sources, the commenter noted that we must provide the public an opportunity to comment on it, or the rule would be unlawful, and arbitrary and capricious.

Response: The proposed floor was based on actual performance, but this concept takes a different form for equipment leak controls than for controls on other types of emission points because equipment leaks are essentially malfunctions, which are not predictable. However, a program of inspections and repair will ensure that any leaks that do occur are identified and fixed. We rate the performance of different LDAR programs based on the type of leak detection method, leak definition, and leak frequency. Specifically, performance is higher for instrument-based programs (*i.e.*, using portable organic vapor analyzers and EPA Method 21 of Appendix A to 40 CFR part 60) than sensory programs, lower leak definitions, and increased inspection frequency.

Based on the ICR responses from coating manufacturers, more than 12 percent of the facilities are implementing some type of LDAR program. One facility reported using an organic vapor analyzer (OVA), a 10,000 ppmv leak definition, and various monitoring frequencies for the different types of components; this program appears to be similar to the requirements of 40 CFR part 63, subpart TT (National Emission Standards for

Equipment Leaks—Control Level 1) and 40 CFR part 60, subpart VV (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry). The others reported using a sensory-program, with most of them conducting inspections monthly. No facilities are capturing all of their equipment leak emissions and venting them through a closed-vent system to a control device. Thus, the MACT floor for existing sources was determined to be a sensory-based LDAR program with monthly inspections of all components. The new source MACT floor was determined to be an LDAR program based on 40 CFR part 63, subpart TT, consistent with the program implemented by the best-performing source.

Comment: One commenter objected to the standard being based on an LDAR program because it is a work practice standard rather than an emission limit. According to the commenter, the CAA requires us to set an emission limit rather than a work practice standard unless it is not feasible to prescribe or enforce an emission limit, and the commenter found no evidence or analysis in the record suggesting that it infeasible to do so.

Response: We determined that an LDAR program is the most reasonable option for control of leaking components. Unlike other emission sources, leaking components are not deliberate emission sources but rather result from mechanical limitations associated with process piping and machinery. A well-managed facility follows a preventive maintenance program to minimize leaks but in all practicality cannot guarantee that no leaks will occur. Therefore, an emission standard for equipment leaks would be difficult to enforce or prescribe. In order to develop such an option, all processes and equipment containing process piping that could potentially leak would require complete capture and control. While the practice of enclosing components and venting to control is allowed as an alternative to LDAR, it is not practiced except in limited cases.

Comment: Many commenters stated the standard should be based on the MACT floor (*i.e.*, a sensory-based LDAR program). According to the commenters, we assumed leak frequencies and leak rates that are too high and costs that are too low; changing these assumptions will show the regulatory alternative (*i.e.*, an LDAR program requiring monitoring using Method 21) is not cost effective. According to the commenters, the SOCMI average factors are not representative of the coatings manufacturing industry because coatings processes generally use less volatile HAP, operate at lower temperatures and pressures, and all operation is in the liquid phase. The commenters considered coatings process conditions to be similar to those for gasoline distribution facilities, which they noted are required to comply with a sensory-based LDAR program. To support their position that leak frequencies and emission rates for coatings manufacturing processes are low, one commenter provided monitoring data for 13 facilities in the industry, including bagging sample data for a few of the pumps, valves, and connectors at one facility.

Response: We reviewed the leak data submitted by the commenter for 13 facilities, including three facilities from which data was recently collected by a fugitive emissions contractor. The three-facility study was well documented and conducted by the same contractor and using the same monitoring instrument that was calibrated on methane. Data from the remaining ten facilities was not as well documented and in some cases, the monitoring data appear to have been based on various instruments and that were calibrated on compounds other than methane. While these data may have been adequate for the individual facility purposes, we did not consider them in our analysis because we felt these data were not consistently obtained. The commenter also conducted a bagging study at one of the three plants for which screening data was collected. Using the results of the bagging study, the commenter calculated emission factors that are 0.00054 kilograms per hour (kg/hr)-source for valves, 0.0025 kg/hr-source for pumps, and 0.0000422 kg/hr-source for connectors. In developing the emission factors, the commenter essentially took an arithmetic average of the VOC emission rates for all components in the bagging study.

After reviewing the information, we decided to recalculate the emission factors according to the method documented in both American Petroleum Institute (API) and EPA publications ("Development of Fugitive Emission Factors for Petroleum Marketing Terminals," Publication Number 4588, March 1993, Prepared by Radian Corporation for API; and "Protocol for Equipment Leak Emission Estimates," EPA Publication EPA–453/R–95–017, November 1995). Using the bagging study and the corresponding screening data, we developed emission rate equations for pumps, valves, and connectors that relate the VOC emission rate (in kg/hr) to the average screening value (in ppmv) for each component. As a second step, we used the data from the three-facility screening study to calculate average emission factors. Our analysis resulted in average emission factors of 0.000412 kg/hr-source for valves, 0.0042 kg/hr-source for pumps, and 0.000015 kg/hr-source for connectors. When we applied these emission factors to our model plant that was the basis for the cost analysis, we found that the uncontrolled HAP emissions are 0.70 tpy, versus the 4.03 tpy that was used in the original analysis. For comparison, if we had used the commenter's calculated emission factors, we would have estimated 0.66 tpy HAP, a slightly lower value but well within the same order of magnitude as the factor we developed. In either case, we note that the revised estimate is only about 20 percent of the previous uncontrolled estimate.

We revised our impacts calculation by conservatively assuming that the relative reductions achieved by the MACT floor sensory LDAR program and the regulatory alternative (40 CFR part 63, subpart UU program) would be the same as assumed in prior analyses. For the model facilities, our previous analysis assumed a 29 percent reduction from uncontrolled baseline for the MACT floor and a 62 percent reduction for the subpart UU regulatory alternative. We multiplied the previously estimated nationwide reductions of implementing the MACT floor and the regulatory alternative by the ratio of model facility revised uncontrolled emission over the earlier estimate of uncontrolled emissions, or 0.7/4.03, to obtain revised emissions reductions. We assumed that the capital and total annual cost estimates would be unchanged from the previous analysis. The incremental cost effectiveness of going beyond the floor using this analysis was estimated to be $15,800, and there are essentially no energy impacts or non-air quality health and environmental impacts associated with the regulatory alternative. Therefore, we cannot justify going beyond the floor in the final rule.

G. Standards for Transfer Operations

Comment: One commenter stated we must set a MACT floor for transfer operations at existing sources. According to the commenter, not setting a MACT floor because no State regulations apply to transfer operations is unlawful.

Response: In setting the MACT floor for existing sources, we considered the available information. We did not specifically request information for transfer operations in our CAA section 114 information request. Based on

follow-up conversations with representatives from five facilities with high solvent throughput rates that potentially are the most likely to control emissions from transfer operations, we determined that these facilities are not controlling their emissions from transfer operations. We also examined State regulations and determined that they apply only to throughput rates above those at coating manufacturing facilities, and they apply only to loading of tank trucks and railcars, which is less common than filling of smaller containers at coating manufacturing facilities. There are no other known means by which sources may be reducing emissions from transfer operations. Therefore, we concluded that the MACT floor for transfer operations at existing sources is no emissions reductions. Because we lack information indicating that any source is implementing or required to implement any measures to reduce HAP emissions from transfer operations, we concluded that the new source MACT floor also is no emissions reductions.

Comment: One commenter opposed the beyond-the-floor standard for existing and new sources. This commenter also claimed that we have not demonstrated that emissions from transfer operations warrant regulation because the facility on which impacts were estimated is not representative of the industry. The commenter contacted that facility and learned they primarily repackage and distribute paint stripper, thinners, and spray gun cleaning solvent. According to the commenter, we generally overestimated emissions from transfer operations because we assumed that the industry transfers pure solvents or mixtures with high vapor pressures when in fact the industry transfers primarily materials with low vapor pressures, including waterborne products. Furthermore, the commenter stated that the regulatory alternative cannot be justified based on cost because the impacts are based on incorrect assumptions. For example, the commenter suggested the following changes: (1) Use the AP–42 saturation factor of 0.6 for submerged loading in dedicated vapor balance service instead of the assumption that displaced vapors are saturated; (2) use a tank truck filling rate of 25 gal/min instead of 150 gallons per minute (gal/min); (3) use characteristics of toluene (or better yet, xylene) instead of an arbitrary HAP with a molecular weight of 80 and a vapor pressure of 3.93 psia; (4) use a gas flow rate of 100 scfm instead of less than 4 scfm; (5) include capital costs for a refrigeration unit and auxiliary equipment such as a precooler, ductwork, a fan, and pump for collected solvent; and (6) conduct the analysis over a range of coating throughput rates to bracket the actual operations in the industry. Taking these changes into account, the commenter estimated a cost of more than $30,000/Mg for bulk loading tank trucks at rates between 1.8 million gal/yr and 7.3 million gal/yr. Another commenter stated that the standard should be no control.

Response: It appears that the first commenter thinks we used the results of the impacts analysis for one facility as the basis for our decision to set the existing and new source standards at a level beyond the floor. This is not correct. We actually conducted two analyses. The first was a sensitivity analysis, comparable to that suggested by the commenter, to determine the characteristics of emission streams for which the total impacts associated with a regulatory alternative that reduces emissions by 75 percent (the same level as the standard for stationary process vessels at existing sources) was reasonable. The second analysis involved estimating the impacts for existing facilities that met the characteristics from the first analysis.

Based on the results of our sensitivity analysis, we concluded that the total impacts are reasonable in light of the emissions reductions achieved if the coating products that are bulk loaded contain at least 3.0 million gal/yr of HAP with a partial pressure of at least 1.5 psia. The incremental HAP reduction achieved to meet the regulatory alternative for a model facility with these characteristics was estimated to be 10.8 Mg/yr, and the incremental cost was estimated to be $3,200/Mg of HAP removed. These estimates assume the emissions are controlled using a condenser, and that the refrigeration unit used in the process vessels analysis can be replaced by one with a slightly larger capacity to accommodate all of the condensers. The incremental electricity consumption to operate the enlarged refrigeration unit is 3,200 kwh/yr, and the incremental fuel energy consumption to generate the electricity is 31 million Btu per year. Total CO, NO_x, and SO_2 emissions from combustion of the additional fuel is 0.03 Mg/yr. The condensed HAP would be a hazardous waste. There would be no wastewater or other non-air quality health or environmental impacts.

At the maximum product loading volume cited by the commenter, we estimate the HAP or solvent throughput would be about 2.0 million gal/yr (*i.e.*, based on an average 1.75 lb HAP/gal coating); thus, none of the bulk loading scenarios evaluated by the commenter would be subject to control under the standard. However, we provide the following discussion of the analysis in the event that a facility may expand production beyond the rates used in the commenter's analysis, or the quantity of HAP in their product is higher than the average value that we used.

In our analysis, we assumed the emission stream is saturated because emissions occur only as a result of vapor displacement, and the vent from the tank truck or rail car can be hard-piped to a control device. Because our analysis assumes that the control is a condenser with coolant supplied from the same refrigeration unit that we assumed would be used with condensers for process vessel emissions, we did not include the cost of a separate refrigeration unit in this analysis. We also included a smaller maintenance labor factor than would be used for a separate refrigerated condenser system. These assumptions mean the costs for overhead, taxes, and capital recovery are lower in our analysis than the commenter's.

Although we agree that adding costs for a precooler, ductwork, and a pump would be reasonable, we note that the overall cost of the auxiliary equipment in our analysis equals more than 50 percent of the cost for all auxiliary equipment in the commenter's analysis, even though we have a much smaller condenser. Furthermore, based on the commenter's data, it appears that we overestimated the cost of the condenser and waste solvent storage tank, which offsets our lack of costs for other auxiliary equipment.

We assumed a fill rate of 30 gal/min, which we consider to be consistent with the commenter's suggested rate of 25 gal/min. This rate also defines the gas flow into the condenser in our analysis because the system can be hard-piped, and there is no need to include supplemental dilution air at a rate 25 times the flow of the displaced volume. As the commenter noted, we assumed the coating product consists only of HAP solvent and solids. This was done to simplify the analysis. Also, products that contain little HAP or less volatile HAP are not likely to meet the thresholds that we set. Finally, we note that our analysis likely overestimates the actual costs because we assumed a waste disposal unit cost four times higher than the cost the commenter considers to be realistic. Therefore, we maintain that for transfer operations meeting the specified flow rate and partial pressure levels in the regulatory alternative, the incremental cost to

control emissions (relative to the floor of no emissions reduction) is reasonable.

In our second analysis, we searched the database for any facilities with HAP throughput and partial pressure that meet the cutoffs established for the regulatory alternative. We identified only one facility that potentially met the criteria. The estimated impacts for this facility are comparable to those for the model facility. Assuming the commenter is correct that most of the reported throughput at this facility is not associated with coating manufacturing, then the impacts of the standard may be lower than we estimated.

H. Pollution Prevention

Comment: One commenter stated that the exemption for equipment that contain less than 5 percent HAP is not a viable pollution prevention alternative. Several commenters consider the lack of a viable pollution prevention alternative to be a serious shortcoming in the rule as proposed, and they suggested several options for consideration. First, numerous commenters favored an option that allows manufacturers to take credit for reductions achieved by voluntarily choosing to manufacture lower HAP coatings or making other changes in production technology. Second, two commenters suggested exempting any compliance coating manufacturing from subpart HHHHH if the facility certifies that the coatings are manufactured to meet the surface coating rules. Third, one commenter suggested that we consider allowing delayed implementation of subpart HHHHH or provide an opt-out provision for facilities whose emissions drop below major source thresholds; this would minimize the impact of the "once-in, always-in" policy. Fourth, if none of the preceding options is acceptable, one commenter requested that the stringency of the standards be reduced because the industry has already achieved reductions as great as or greater than those expected by the proposed standards. Many commenters cited numerous changes in the industry over the past few years that have reduced emissions from coating manufacturing and have not been accounted for in setting the standards. For example, the shift in production to waterborne, UV cure, and high solids coatings, some of which has been driven by other regulatory requirements, contribute to reducing emissions from coating manufacturing as well as from coating application. One commenter estimated that the shift to manufacturing compliant coatings to meet the surface coating MACT will reduce HAP content of coatings by 265,000 tpy, which also translates into the same reduction in HAP throughput for the manufacturing processes. Assuming 0.5 to 1.0 percent of the throughput is emitted during manufacturing means this reduction in throughput has already achieved a significant fraction of the expected reductions under subpart HHHHH. Other changes that have reduced emissions include the shift to using low vapor pressure solvents, making coatings exclusively in one vessel, and the production of smaller batch sizes with shorter lead times. Finally, the commenters noted that the industry has undertaken various voluntary efforts to reduce emissions including the paint industry's Coatings Care program, ACC's Responsible Care program, EPA's National Environmental Track program, and various State and local programs.

Response: We do not agree that facilities can demonstrate that any of the suggested alternatives are comparable to the specified emission standards. A percent reduction in the HAP content of products may not necessarily yield an equivalent percent reduction in emissions. A format such as a demonstration in reduction of HAP content at coatings manufacturers is not easily linked to overall HAP usage upon application.

I. Initial Compliance

Comment: One commenter has encountered difficulty in applying existing EPA stack sampling methods to determine condenser inlet concentrations of VOC and HAP for use in demonstrating the control efficiency of the condenser. The commenter manufactures adhesives and sealants in closed vessels to which solvent is introduced through closed piping systems, and solids are introduced via closed screw conveyors. Nitrogen is used to purge the conveyors and vessels, and the exhaust gas is vented to a chilled water condenser. The commenter noted that the vapor space in the process vessels is typically saturated with solvent vapor, which quickly overwhelms the sampling equipment. The commenter noted that the sampling equipment also artificially increases the emissions by drawing off vapor from the precondenser headspace that would not otherwise represent emissions. Furthermore, the commenter stated that the method and volume of nitrogen inerting dramatically affects the sampling effectiveness without actually altering total emissions. Therefore, the commenter supported the proposed option that would allow compliance to be demonstrated by documenting operation at a suitable outlet temperature, but the commenter recommended modifying the option to consider the combined effect of covers and other vessel sealing devices as well as the efficiency of the condenser.

Response: Without additional details regarding operation of the equipment, characteristics of the gas stream(s), and modifications to the testing protocol that have already been attempted, we cannot provide constructive suggestions for modifying the sampling methods. However, we note that performance testing is only one of three options for demonstrating initial compliance for condensers. As the commenter indicated, a second option is to demonstrate that the condenser operates below a specified temperature, where the required level is based on the HAP partial pressure of the gas stream entering the condenser. The third option is to determine the percent reduction based on calculations of the uncontrolled and controlled emissions using the equations specified in § 63.1257(d).

J. Ongoing Compliance

Comment: According to one commenter, the monitoring provisions are arbitrary and capricious because they exempt sources with the greatest emissions (*i.e.*, those that fall outside of the MACT floor due to size have the loosest monitoring).

Response: We disagree with the commenter's assertions. The final rule, like the proposed rule, requires monitoring of all control devices. In some cases, to minimize the burden on small operations (*e.g.*, small control devices controlling process vessel vents), the final rule has different monitoring requirements for lower-emitting sources; however, these sources are not sources with the greatest HAP emissions as asserted by the commenter.

Comment: One commenter considered the proposed quality assurance/quality control (QA/QC) requirements for continuous parameter monitors to be unduly burdensome and stated that they contravene existing EPA standards and test methods. The commenter recommended that sources be required to develop preventive maintenance programs that are based on manufacturer's recommendations and actual operating/maintenance history of the instruments. Another commenter recommended adding a provision that allows sources to request approval, using the precompliance report, of alternatives to the QA/QC procedures

specified in § 63.8035 of the proposed rule.

Response: The final rule references the QA/QC requirements for continuous parameter monitoring systems (CPMS) in 40 CFR part 63, subpart SS. We deleted the proposed requirements for the same reasons we decided not to implement similar proposed QA/QC requirements in subpart SS (67 FR 46260, July 12, 2002). Specifically, we are currently developing performance specifications for CPMS to be followed by owners and operators of all sources subject to standards under 40 CFR part 63, which includes subpart HHHHH. Also, subpart SS currently specifies requirements for CPMS, and the requirements of subpart SS are referenced by the final rule. Even though they may not be as specific as those proposed, we decided it would be premature to promulgate performance specifications for subpart HHHHH when the performance specifications that would ultimately be promulgated for all 40 CFR part 63 may be significantly different. Until those performance specifications are ready, we consider the requirements in subpart SS to be the best choice because they are consistent with other rules applied to source categories containing similar control and monitoring equipment as in this source category. Further, references to these standard standards streamline compliance requirements for facilities with operations in numerous source categories. The procedures in subpart SS require monitoring equipment to be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately. These provisions are consistent with the commenters' suggestions.

K. Recordkeeping and Reporting

Comment: According to one commenter, the initial notification requirements are unnecessary because facilities in the miscellaneous coating source category have already submitted an initial notification under CAA section 112(j). Another commenter considers the notification to be unnecessary because it is already required under title V.

Response: The requirement to submit an initial notification is part of the General Provisions, which apply to all NESHAP. If the required information is already in the sources' title V permit applications, the requirement for sources to copy this information into their one-time initial notifications should not be unduly burdensome. Having this information will help the regulatory authorities and the public better understand what is being regulated, especially since a source's initial notification may be submitted before its title V permit is issued or renewed.

Comment: Three commenters requested that the notification of compliance status report be due no earlier than 150 days or 180 days after the compliance date, as in other rules and the General Provisions. According to the commenters, facilities will need the full 3 years (if not longer) after the promulgation date to respond to actions taken by their customers and to evaluate their own compliance options, particularly to determine whether they can make changes such that they are no longer major sources.

Response: We accept the argument that some facilities may need the full 3 years after the effective date to bring controls online or to make product formulation changes to meet new customer requirements in response to the surface coating MACT rules. Therefore, we have decided to change the due date for the notification of compliance status report. In the final rule, the report is due no later than 150 days after the compliance date, as in many other rules.

L. Startup, Shutdown and Malfunction

Comment: According to one commenter, the startup, shutdown, and malfunction (SSM) provisions are unlawful because they allow sources to avoid enforcement actions merely by complying with their startup, shutdown, and malfunction plan (SSMP), but the CAA requires compliance continuously except for unavoidable deviations during SSM.

Response: We recently adopted final amendments to the General Provisions which address the concerns raised by the commenter (68 FR 32586, May 30, 2003). The final amendments clarify that § 63.6(e)(1)(i) establishes a general duty to minimize emissions. During a period of SSM, that general duty requires an owner or operator to reduce emissions to the greatest extent consistent with safety and good air pollution control practices. However, "during an SSM event, the general duty to minimize emissions does not require an owner or operator to achieve the levels required by the applicable MACT standard at other times, or to make further efforts to reduce emissions if such levels have been successfully achieved." As discussed in the preamble to the final amendments, we disagree with the commenter's legal position that sources' compliance with SSMP requirements in lieu of applicable emission standards is permissible only where violations of emission limitations are unavoidable. As stated in the preamble to the final amendments to the General Provisions, "we believe that we have discretion to make reasonable distinctions concerning those particular activities to which the emission limitations in a MACT standard apply * * *. However, we note that the general duty to minimize emissions is intended to be a legally enforceable duty which applies when the emission limitations in a MACT standard do not apply, thereby limiting exceedances of generally applicable emission limitations to those instances where they cannot be reasonably avoided." We further explained that the general duty to minimize emissions requires that owners or operators review their SSMP on an ongoing basis and make appropriate improvements to ensure that excess emissions are avoided.

Comment: Two commenters recommended that "startup" be defined as in the Amino and Phenolic Resins NESHAP (40 CFR part 63, subpart OOO). According to the commenters, the proposed definition more accurately defines a "new process."

Response: We clarified the definition of "startup" for the final rule. However, we did not use the definition from the Amino and Phenolic Resins final rule because we do not consider the language regarding flexible operation units and continuous processes to be appropriate for the miscellaneous coatings manufacturing source category. For the final rule, we removed the term "family of coatings," and we removed the list of actions that are not startup so that the definition focuses only on items that are startup. In addition, since it is possible that actions taken to bring equipment back online after it has been configured and used to produce a different product, we also decided to specify that the first time equipment is put into operation at the start of a campaign, even if the same product has been produced in the past, is startup if the actions taken differ from routine operation.

Comment: One commenter recommended that we clearly apply the SSMP to the emission control equipment rather than to individual process vessels on a batch to batch basis. According to the commenter, tracking the startup and shutdown of individual process vessels would require thousands of records, it would be nearly impossible to insure that all information is collected properly, and

the tracking adds no environmental value.

Response: Startup and shutdown do apply to control equipment because the definitions specify that they apply to "equipment required or used to comply with this subpart." Similarly, the definition of "malfunction" in § 63.2 specifies that it applies to control equipment. However, startup, shutdown, and malfunction also apply to the processing equipment. We disagree with the commenter's characterization that applying startup, shutdown, and malfunction to process vessels will result in the need to generate thousands of records because startup only applies to new sources, new equipment, and possibly the start of campaigns; and malfunctions, by definition, are infrequent failures of equipment. In addition, the definition of shutdown has been changed to specify that shutdown applies to the cessation of operation of process vessels only if the steps taken to cease operation differ from routine procedures for removing the vessel or equipment from service. This change also makes the definition of shutdown consistent with the revised definition of startup.

Comment: Several commenters recommended excluding periods of SSM from the definition of "deviation" and reporting deviations separately from reporting of SSM events. One commenter noted that periods of SSM are exempt from compliance under the rule as proposed and concluded that the proposed requirements are redundant and provide no useful information regarding compliance. Another commenter also noted that requirements in previous rules and the General Provisions differentiate between SSM events and deviations (or exceedances and excursions, in the terminology of previous rules). According to the commenter, changing the terminology and requirements for the final rule will at a minimum be confusing for facilities that also must comply with previous rules.

Response: We disagree with the commenter's contention that the proposed requirements are redundant. Section 63.6(e) of the General Provisions requires operation at all times (including during periods of SSM) in a manner consistent with safety and good air pollution control practices for minimizing emissions to the levels required by the relevant standards (*i.e.*, meet the standards or comply with the SSMP). Nothing in the General Provisions says the standards do not apply during periods of SSM, but compliance with the SSMP is allowed in the event the standard cannot otherwise be met. Furthermore, although a deviation may occur for a day during which an SSM event also occurs, the recordkeeping and reporting requirements associated with the deviation differ from the recordkeeping and reporting requirements for the SSM event; thus, there is no redundancy. Information about all periods during which an emission limit, operating limit, or work practice standard is not met and the reasons for noncompliance is important. Thus, we have not changed the intent of the requirements for the final rule.

Comment: One commenter considers the proposed requirement for immediate reporting of actions taken that are inconsistent with the SSMP to be overly burdensome. According to the commenter, reporting these events with other SSM events on a semi-annual basis in the compliance report is sufficient, and the commenter noted that this approach has been used in 40 CFR part 63, subpart JJJ (Polymers and Resins) and subpart PPP (Polyether Polyols).

Response: We agree that immediate notifications are not necessary. The industries covered by this source category generally have extensive upset/SSM reporting requirements under the Comprehensive Environmental Response, Compensation, and Liability Act and state reporting requirements that should be adequate in supplying timely notification of events. Further, the final rule requires information regarding actions inconsistent with the SSMP to be submitted in semiannual compliance reports. For these reasons, and to maintain consistency with the HON and the Consolidated Air Rule (CAR), we have overridden the immediate SSM reporting required by §§ 63.6(e)(3)(iv) and 63.10(d)(5)(ii) of the General Provisions.

V. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the EPA must determine whether the regulatory action is "significant" and, therefore, subject to review by the Office of Management and Budget (OMB) and the requirements of the Executive Order. The Executive Order defines a "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) materially alter the budgetary impact of entitlement, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, OMB has notified EPA that it considers this a "significant regulatory action" within the meaning of the Executive Order. The EPA has submitted this action to OMB for review. Changes made in response to OMB suggestions or recommendations will be documented in the public record.

B. Paperwork Reduction Act

The information collection requirements in the final rule have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq*. The information requirements are not enforceable until OMB approves them. The ICR number is 2115.01.

The information requirements are based on notification, recordkeeping, and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A), which are mandatory for all owners or operators subject to NESHAP. These recordkeeping and reporting requirements are specifically authorized by section 112 of the CAA (42 U.S.C. 7412). All information submitted to the EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to Agency policies in 40 CFR part 2, subpart B.

The final NESHAP require maintenance inspections of the control devices but do not require any notifications or reports beyond those required by the NESHAP General Provisions (40 CFR part 63, subpart A). The recordkeeping requirements collect only the specific information needed to determine compliance.

The annual public reporting and recordkeeping burden for this collection of information (averaged over the first 3 years after the effective date of the final rule) is estimated to average 79 labor hours per year at an annual cost of $3,500 for 129 respondents. These estimates include one-time submissions of notifications and precompliance reports, preparation of an SSMP with

semiannual reports for any event when the procedures in the plan were not followed, preparation of semiannual compliance reports, and recordkeeping. Total annualized capital/startup costs associated with the monitoring requirements for the 3-year period of the ICR are estimated at $10,000/yr. Average operation and maintenance costs associated with the monitoring requirements for the 3-year period are estimated at $34,000/yr.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purpose of collecting, validating, and verifying information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control number for EPA's regulations in 40 CFR are in 40 CFR part 9. When the ICR is approved by OMB, the Agency will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number for the approved information collection requirements contained in the final rule.

C. Regulatory Flexibility Act

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the final rule. The EPA has also determined that the final rule will not have a significant economic impact on a substantial number of small entities. For purposes of assessing the impact of today's rule on small entities, small entity is defined as: (1) A small business having up to 500 employees, (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000, and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's final rule on small entities, EPA has concluded that this action will not have a significant economic impact on a substantial number of small entities.

Our economic analysis identified as small businesses 32 of the 58 companies owning affected coating manufacturing facilities. This constitutes 55 percent of the affected businesses. Although small businesses represent 55 percent of the companies withing the source category, they are expected to incur 24 percent of the total industry compliance costs of $16 million. According to EPA's economic assessment, there are two small firms with compliance costs equal to or greater than 3 percent of their sales. In addition, there are five small firms with cost-to-sales ratios between 1 and 3 percent.

An economic impact analysis was performed to estimate the changes in product price and production quantities for the firms affected by subpart HHHHH. The analysis shows that of the 70 facilities owned by affected small firms, one is expected to shut down after implementation of the NESHAP.

The baseline economic condition of the facility predicted to close affects the closure estimate provided by the economic model. Facilities that are already experiencing adverse economic conditions will be more severely impacted than those that are not, and the facility predicted to close currently has low profitability levels.

Although the NESHAP will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has tried to limit the impact of the final rule on small entities. We have worked closely with the National Paint and Coatings Association, the National Association of Printing Ink Manufacturers, and the Adhesives and Sealants Council. These trade organizations, which represent the majority of facilities covered by subpart HHHHH, have represented their members at stakeholder meetings throughout the standards development process. We worked with the coating manufacturers to minimize the overlap of MACT standards and provide several alternative ways to comply with the standards to allow as much flexibility as possible. The multi-process vessel alternative emission limit and the pollution prevention option help those small entities that have been proactive in reducing their HAP emissions and usage, respectively.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures by State, local, and tribal governments, in aggregate, or by the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least-costly, most cost-effective, or least-burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that the final rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any one year. The maximum total annual costs of the final rule for any year is estimated to be less than $16 million. Thus, the final rule is not subject to the requirements of sections 202 and 205 of the UMRA.

In addition, the NESHAP contain no regulatory requirements that might significantly or uniquely affect small governments because they contain no requirements that apply to such governments or impose obligations upon them. Therefore, the final rule is not subject to the requirements of section 203 of the UMRA.

E. Executive Order 13132: Federalism

Executive Order 13132 (64 FR 43255, August 10, 1999) requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that

have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

The final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. None of the sources are owned or operated by State or local governments. Thus, Executive Order 13132 does not apply to the final rule.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175 (65 FR 67249, November 9, 2000) requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." The final rule does not have tribal implications. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes. No tribal governments own or operate miscellaneous coating operations. Thus, Executive Order 13175 does not apply to the final rule.

G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks

Executive Order 13045 (62 FR 1985, April 23, 1997) applies to any rule that: (1) is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, EPA must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The final rule is not subject to the Executive Order because it is based on technology performance and not health or safety risks.

H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution or Use

The final rule is not a "significant energy action" as defined in Executive Order 13211 (66 FR 28355, May 22, 2001) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Approximately 3.0 million kwh/yr of electricity will be needed to operate fans and pumps for control systems. Generating this amount of electricity will consume about 1,000 tpy of coal. If owners and operators elect to use combustion-based control devices, a small amount of natural gas will also be used.

I. National Technology Transfer Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Public Law No. 104–113) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

The final rule involves technical standards. The final rule uses EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2G, 2F, 3, 3A, 3B, 4, 18, 25, 25A, 26, 26A, 305, 320, 624, 625, 1624, 1625, 1666, 1671, 8260, and 8270. Consistent with the NTTAA, the EPA conducted searches to identify voluntary consensus standards in addition to these EPA methods. The search and review results have been documented and placed in the docket for the NESHAP (Docket ID No. OAR–03–0178). The search for emissions monitoring procedures for measuring emissions of the HAP or surrogates subject to emission limitations in these NESHAP identified 19 voluntary consensus standards that appeared to have possible use in lieu of EPA standard reference methods. However, after reviewing the available standards, EPA determined that 13 of the candidate consensus standards would not be practical due to lack of equivalency, documentation, and validation data. The 13 standards are: ASME C00031 or Performance Test Code 19–10–1981, ASTM D3154–91 (1995), ASTM D3464–96, ASTM D3796–90 (1998), ASTM D5835–95, ASTM D6060–96, ASTM E337–84 (Reapproved 1996), CAN/CSA Z2232.2–M–86, European Norm (EN) 12619 (1999), EN 1911–1,2,3 (1998), ISO 9096:1992, ISO 10396:1993, and ISO 10780:1994. Of the six remaining candidate consensus standards, the following five are under development or under EPA review: ASME/BSR MFC 12M, ASME/BSR MFC 13m, ASTM D5790–95 (1995), ISO/DIS 12039, and ISO/FDIS 14965. The EPA plans to follow, review, and consider adopting these candidate consensus standards after their development and further review by EPA is completed.

One consensus standard, ASTM D6420–99, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (GC/MS), is appropriate in the cases described below for inclusion in these NESHAP in addition to the currently available EPA Method 18 codified at 40 CFR part 60, appendix A for measurement of organic compounds. Therefore, the standard ASTM D6420–99 is cited in the final rule.

Similar to EPA's performance based Method 18, ASTM D6420–99 is also a performance based method for measurement of gaseous organic compounds. However, ASTM D6420–99 was written to support the specific use of highly portable and automated GC/MS. While offering advantages over the traditional Method 18, the ASTM method does allow some less stringent criteria for accepting GC/MS results than required by Method 18. Therefore, ASTM D6420–99 (Docket ID No. OAR–2003–0178) is a suitable alternative to Method 18 only where the target compound(s) are those listed in section 1.1 of ASTM D6420–99; and the target concentration is between 150 ppb(v) and 100 ppm(v).

For target compound(s) not listed in Table 1.1 of ASTM D6420–99, but potentially detected by mass spectrometry, the regulation specifies that the additional system continuing calibration check after each run, as detailed in Section 10.5.3 of the ASTM method, must be followed, met, documented, and submitted with the data report even if there is no moisture condenser used or the compound is not considered water soluble. For target

compound(s) not listed in Section 1.1 of ASTM D6420–99, and not amenable to detection by mass spectrometry, ASTM D6420–99 does not apply.

As a result, EPA cites ASTM D6420–99 in subpart HHHHH of part 63. The EPA also cites Method 18 as a gas chromatography (GC) option in addition to ASTM D6420–99. This will allow the continued use of GC configurations other than GC/MS.

Some EPA testing methods and performance standards are specified in § 63.8000(d)(1) of subpart HHHHH. Most of the standards have been used by States and industry for more than 10 years. Nevertheless, under § 63.7(f), the final rule also allows any State or source to apply to EPA for permission to use an alternative method in place of any of the EPA testing methods or performance standards listed in the NESHAP.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing the final rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. The final rule is not a "major rule" as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: August 29, 2003.

Marianne Lamont Horinko,

Acting Administrator.

■ For the reasons stated in the preamble, title 40, chapter I, part 63 of the Code of the Federal Regulations is amended as follows:

PART 63—[AMENDED]

■ 1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

■ 2. Part 63 is amended by adding a new subpart HHHHH to read as follows:

Subpart HHHHH—National Emission Standards for Hazardous Air Pollutants: Miscellaneous Coating Manufacturing

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Subpart HHHHH—National Emission Standards for Hazardous Air Pollutants: Miscellaneous Coating Manufacturing

What This Subpart Covers

§ 63.7980 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for miscellaneous coating manufacturing. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limits, operating limits, and work practice standards.

§ 63.7985 Am I subject to the requirements in this subpart?

(a) You are subject to the requirements in this subpart if you own or operate miscellaneous coating manufacturing operations, as defined in paragraph (b) of this section, that meet the conditions specified in paragraphs (a)(1) through (4) of this section.

(1) Are located at or are part of a major source of hazardous air pollutants (HAP) emissions, as defined in section 112(a) of the Clean Air Act (CAA).

(2) Manufacture coatings as defined in § 63.8105.

(3) Process, use, or produce HAP.

(4) Are not part of an affected source under another subpart of this part 63.

(b) Miscellaneous coating manufacturing operations include the facilitywide collection of equipment described in paragraphs (b)(1) through (4) of this section that is used to manufacture coatings as defined in § 63.8105. Miscellaneous coating manufacturing operations also include cleaning operations.

(1) Process vessels.

(2) Storage tanks for feedstocks and products.

(3) Components such as pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, and instrumentation systems.

(4) Wastewater tanks and transfer racks.

(c) If the predominant use of a transfer rack loading arm or storage tank

(including storage tanks in series) is associated with miscellaneous coating manufacturing, and the loading arm or storage tank is not part of an affected source under a subpart of this part 63, then you must assign the loading arm or storage tank to the miscellaneous coating manufacturing operations. If the predominant use cannot be determined, and the loading arm or storage tank is not part of an affected source under a subpart of this part 63, then you must assign the loading arm or storage tank to the miscellaneous coating manufacturing operations. If the use varies from year to year, then you must base the determination on the utilization that occurred during the year preceding December 11, 2003 or, if the loading arm or storage tank was not in operation during that year, you must base the use on the expected use for the first 5-year period after startup. You must include the determination in the notification of compliance status report specified in § 63.8075(d). You must redetermine the predominant use at least once every 5 years after the compliance date.

(d) The requirements for miscellaneous coatings manufacturing sources in this subpart do not apply to operations described in paragraphs (d)(1) through (4) of this section.

(1) Research and development facilities, as defined in section 112(c)(7) of the CAA.

(2) The affiliated operations located at an affected source under subparts GG (National Emission Standards for Aerospace Manufacturing and Rework Facilities), KK (National Emission Standards for the Printing and Publishing Industry), JJJJ (NESHAP: Paper and Other Web Coating), future MMMM (National Emission Standards for Miscellaneous Metal Parts and Products Surface Coating Operations) and SSSS (NESHAP: Surface Coating of Metal Coil) of 40 CFR part 63. Affiliated operations include, but are not limited to, mixing or dissolving of coating ingredients; coating mixing for viscosity adjustment, color tint or additive blending, or pH adjustment; cleaning of coating lines and coating line parts; handling and storage of coatings and solvent; and conveyance and treatment of wastewater.

(3) Ancillary equipment such as boilers and incinerators (only those not used to comply with the emission limits in Tables 1 through 5 to this subpart), chillers and refrigeration systems, and other equipment that is not directly involved in the manufacturing of a coating (*i.e.*, it operates as a closed system, and materials are not combined with materials used to manufacture the coating).

(4) Quality assurance/quality control laboratories.

§ 63.7990 What parts of my plant does this subpart cover?

(a) This subpart applies to each miscellaneous coating manufacturing affected source as defined in § 63.7985(a).

(b) The miscellaneous coating manufacturing affected source is the miscellaneous coating manufacturing operations as defined in § 63.7985(b).

(c) An affected source is a new affected source if you commenced construction or reconstruction after April 4, 2002, and you met the applicability criteria at the time you commenced construction or reconstruction.

Compliance Dates

§ 63.7995 When do I have to comply with this subpart?

(a) If you have a new affected source, you must comply with this subpart according to the requirements in paragraphs (a)(1) and (2) of this section.

(1) If you start up your new affected source before December 11, 2003, then you must comply with the requirements for new sources in this subpart no later than December 11, 2003.

(2) If you start up your new affected source after December 11, 2003, then you must comply with the requirements for new sources in this subpart upon startup of your affected source.

(b) If you have an existing affected source on December 11, 2003, then you must comply with the requirements for existing sources in this subpart no later than December 11, 2005.

(c) If you add equipment to your existing affected source after December 11, 2003 you must comply with the requirements for existing sources in this subpart upon startup of the added equipment.

(d) You must meet the notification requirements in § 63.8070 according to the schedule in § 63.8070 and in 40 CFR part 63, subpart A. Some of the notifications must be submitted before you are required to comply with the emission limits, operating limits, and work practice standards in this subpart.

Emission Limits, Work Practice Standards, and Compliance Requirements

§ 63.8000 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limits and work practice standards in Tables 1 through 5 to this subpart at all times, except during periods of startup, shutdown, and malfunction. You must meet the requirements specified in paragraphs (b) and (c) of this section. You must meet the requirements specified in §§ 63.8005 through 63.8025 (or the alternative means of compliance in § 63.8050), except as specified in paragraph (d) of this section. You must meet the notification, reporting, and recordkeeping requirements specified in §§ 63.8070, 63.8075, and 63.8080.

(b) *General requirements.* (1) If an emission stream contains halogen atoms, you must determine whether it meets the definition of a halogenated stream by calculating the concentration of each organic compound that contains halogen atoms using the procedures specified in § 63.115(d)(2)(v), multiplying each concentration by the number of halogen atoms in the organic compound, and summing the resulting halogen atom concentrations for all of the organic compounds in the emission stream. Alternatively, you may elect to designate the emission stream as halogenated.

(2) Opening of a safety device, as defined in § 63.8105, is allowed at any time conditions require it to avoid unsafe conditions.

(c) Compliance requirements for closed vent systems and control devices. If you use a control device to comply with an emission limit in Table 1, 2, or 5 to this subpart, you must comply with the requirements in subpart SS of 40 CFR part 63 as specified in paragraphs (c)(1) through (3) of this section, except as specified in paragraph (d) of this section.

(1) If you reduce organic HAP emissions by venting emissions through a closed-vent system to any combination of control devices (except a flare), you must meet the requirements of § 63.982(c) and the requirements referenced therein.

(2) If you reduce organic HAP emissions by venting emissions through a closed-vent system to a flare, you must meet the requirements of § 63.982(b) and the requirements referenced therein. You may not use a flare to control halogenated vent streams or hydrogen halide and halogen HAP emissions.

(3) If you use a halogen reduction device to reduce hydrogen halide and halogen HAP emissions that are generated by combusting halogenated vent streams, you must meet the requirements of § 63.994 and the requirements referenced therein. If you use a halogen reduction device before a combustion device, you must determine the halogen atom emission rate prior to

the combustion device according to the procedures in § 63.115(d)(2)(v).

(d) *Exceptions to the requirements specified in other subparts of this part 63.* (1) *Requirements for performance tests.* The requirements specified in paragraphs (d)(1)(i) through (v) of this section apply instead of or in addition to the requirements for performance testing of control devices as specified in subpart SS of 40 CFR part 63.

(i) Conduct gas molecular weight analysis using Method 3, 3A, or 3B in appendix A to 40 CFR part 60.

(ii) Measure moisture content of the stack gas using Method 4 in appendix A to 40 CFR part 60.

(iii) As an alternative to using Method 18, Method 25/25A, or Method 26/26A of 40 CFR part 60, appendix A to comply with any of the emission limits specified in Tables 1 through 7 to this subpart, you may use Method 320 of 40 CFR part 60, appendix A. When using Method 320, you must follow the analyte spiking procedures of section 13 of Method 320, unless you demonstrate that the complete spiking procedure has been conducted at a similar source.

(iv) Section 63.997(c)(1) does not apply. For the purposes of this subpart, results of all initial compliance demonstrations must be included in the notification of compliance status report, which is due 150 days after the compliance date, as specified in § 63.8075(d)(1).

(v) The option in § 63.997(e)(2)(iv)(C) to demonstrate compliance with a percent reduction emission limit by measuring total organic carbon (TOC) is not allowed.

(vi) If you do not have a closed-vent system as defined in § 63.981, you must determine capture efficiency using Method 204 of appendix M to 40 CFR part 51 for all stationary process vessels subject to requirements of Table 1 to this subpart.

(2) *Design evaluation.* To determine the percent reduction of a small control device, you may elect to conduct a design evaluation as specified in § 63.1257(a)(1) instead of a performance test as specified in subpart SS of 40 CFR part 63. You must establish the value(s) and basis for the operating limits as part of the design evaluation.

(3) *Periodic verification.* For a control device with total inlet HAP emissions less than 1 ton per year (tpy), you must establish an operating limit(s) for a parameter(s) that you will measure and record at least once per averaging period (*i.e.*, daily or block) to verify that the control device is operating properly. You may elect to measure the same parameter(s) that is required for control devices that control inlet HAP emissions equal to or greater than 1 tpy. If the parameter will not be measured continuously, you must request approval of your proposed procedure in the precompliance report. You must identify the operating limit(s) and the measurement frequency, and you must provide rationale to support how these measurements demonstrate the control device is operating properly.

(4) *Continuous emissions monitoring systems.* Each continuous emissions monitoring system (CEMS) must be installed, operated, and maintained according to the requirements in § 63.8 and paragraphs (d)(4)(i) through (iv) of this section.

(i) Each CEMS must be installed, operated, and maintained according to the applicable Performance Specification of 40 CFR part 60, appendix B, and according to paragraph (d)(4)(ii) of this section, except as specified in paragraph (d)(4)(i)(A) of this section. For any CEMS meeting Performance Specification 8, you must also comply with appendix F, procedure 1 of 40 CFR part 60.

(A) If you wish to use a CEMS other than a Fourier Transform Infrared Spectroscopy (FTIR) meeting the requirements of Performance Specification 15 to measure hydrogen halide and halogen HAP before we promulgate a Performance Specification for such CEMS, you must prepare a monitoring plan and submit it for approval in accordance with the procedures specified in § 63.8.

(B) [Reserved]

(ii) You must determine the calibration gases and reporting units for TOC CEMS in accordance with paragraph (d)(4)(ii)(A), (B), or (C) of this section.

(A) For CEMS meeting Performance Specification 9 or 15 requirements, determine the target analyte(s) for calibration using either process knowledge of the control device inlet stream or the screening procedures of Method 18 on the control device inlet stream.

(B) For CEMS meeting Performance Specification 8 used to monitor performance of a combustion device, calibrate the instrument on the predominant organic HAP and report the results as carbon (C_1), and use Method 25A or any approved alternative as the reference method for the relative accuracy tests.

(C) For CEMS meeting Performance Specification 8 used to monitor performance of a noncombustion device, determine the predominant organic HAP using either process knowledge or the screening procedures of Method 18 on the control device inlet stream, calibrate the monitor on the predominant organic HAP, and report the results as C_1. Use Method 18, ASTM D6420–99, or any approved alternative as the reference method for the relative accuracy tests, and report the results as C_1.

(iii) You must conduct a performance evaluation of each CEMS according to the requirements in 40 CFR 63.8 and according to the applicable Performance Specification of 40 CFR part 60, appendix B, except that the schedule in § 63.8(e)(4) does not apply, and the results of the performance evaluation must be included in the notification of compliance status report.

(iv) The CEMS data must be reduced to operating day or operating block averages computed using valid data consistent with the data availability requirements specified in § 63.999(c)(6)(i)(B) through (D), except monitoring data also are sufficient to constitute a valid hour of data if measured values are available for at least two of the 15-minute periods during an hour when calibration, quality assurance, or maintenance activities are being performed. An operating block is a period of time from the beginning to end of batch operations in the manufacturing of a coating. Operating block averages may be used only for process vessel data.

(5) *Continuous parameter monitoring.* The provisions in paragraphs (d)(5)(i) through (iii) of this section apply in addition to the requirements for continuous parameter monitoring system (CPMS) in subpart SS of 40 CFR part 63.

(i) You must record the results of each calibration check and all maintenance performed on the CPMS as specified in § 63.998(c)(1)(ii)(A).

(ii) When subpart SS of 40 CFR part 63 uses the term a range or operating range of a monitored parameter, it means an operating limit for a monitored parameter for the purposes of this subpart.

(iii) As an alternative to measuring pH as specified in § 63.994(c)(1)(i), you may elect to continuously monitor the caustic strength of the scrubber effluent.

(6) *Startup, shutdown, and malfunction.* Sections 63.998(b)(2)(iii) and (b)(6)(i)(A), which apply to the exclusion of monitoring data collected during periods of startup, shutdown, and malfunction (SSM) from daily averages, do not apply for the purposes of this subpart.

(7) *Reporting.* (i) When §§ 63.8005 through 63.8025 reference other subparts in this part 63 that use the term periodic report, it means compliance report for the purposes of this subpart.

(ii) When there are conflicts between this subpart and referenced subparts for the due dates of reports required by this subpart, reports must be submitted according to the due dates presented in this subpart.

(iii) Excused excursions, as defined in subpart SS of 40 CFR part 63, are not allowed.

§ 63.8005 What requirements apply to my process vessels?

(a) You must meet each emission limit and work practice standard in Table 1 to this subpart that applies to you, except as specified in §§ 63.8050 and 63.8055, and you must meet each applicable requirement specified in § 63.8000(b). For each control device used to comply with Table 1 to this subpart, you must comply with subpart SS of this part 63 as specified in § 63.8000(c), except as specified in § 63.8000(d) and paragraphs (b) through (g) of this section.

(b) When subpart SS of this part 63 refers to process vents, it means process vessel vents for the purposes of this section.

(c) Process condensers, as defined in § 63.1251, are not considered to be control devices for process vessels.

(d) *Initial compliance.* (1) To demonstrate initial compliance with a percent reduction emission limit in Table 1 to this subpart, you must conduct the performance test or design evaluation under conditions as specified in § 63.7(e)(1), except that the performance test or design evaluation must be conducted under worst-case conditions. Also, the performance test for a control device used to control emissions from process vessels must be conducted according to § 63.1257(b)(8), including the submittal of a site-specific test plan for approval prior to testing. The requirements in § 63.997(e)(1)(i) and (iii) also do not apply for performance tests conducted to determine compliance with the emission limits for process vessels.

(2) For the initial compliance demonstration for condensers, you must determine uncontrolled emissions using the procedures specified in § 63.1257(d)(2), and you must determine controlled emissions using the procedures specified in § 63.1257(d)(3)(i)(B) and (iii).

(3) You must demonstrate that each process condenser is properly operated according to the procedures specified in § 63.1257(d)(2)(i)(C)(*4*)(*ii*) and (d)(3)(iii)(B). The reference in § 63.1257(d)(3)(iii)(B) to the alternative standard in § 63.1254(c) does not apply for the purposes of this subpart. As an alternative to measuring the exhaust gas temperature, as required by § 63.1257(d)(3)(iii)(B), you may elect to measure the liquid temperature in the receiver.

(4) You must conduct a performance test or compliance demonstration equivalent to an initial compliance demonstration within 360 hours of a change in operating conditions that are not considered to be within the previously established worst-case conditions.

(e) *Establishing operating limits.* You must establish operating limits under the conditions required for your initial compliance demonstration, except you may elect to establish operating limit(s) for conditions other than those under which a performance test was conducted as specified in paragraph (e)(1) of this section and, if applicable, paragraph (e)(2) of this section.

(1) The operating limits may be based on the results of the performance test and supplementary information such as engineering assessments and manufacturer's recommendations. These limits may be established for conditions as unique as individual emission episodes. You must provide rationale in the precompliance report for the specific level for each operating limit, including any data and calculations used to develop the limit and a description of why the limit indicates proper operation of the control device. The procedures provided in this paragraph (e)(1) have not been approved by the Administrator and determination of the operating limit using these procedures is subject to review and approval by the Administrator.

(2) If you elect to establish separate operating limits for different emission episodes, you must maintain records as specified in § 63.8085(g) of each point at which you change from one operating limit to another, even if the duration of the monitoring for an operating limit is less than 15 minutes.

(f) *Averaging periods.* If you elect to establish separate operating limits for different emission episodes, you may elect to determine operating block averages instead of the daily averages specified in § 63.998(b)(3). An operating block is a period of time that is equal to the time from the beginning to end of an emission episode or sequence of emission episodes.

(g) *Flow indicators.* If flow to a control device could be intermittent, you must install, calibrate, and operate a flow indicator at the inlet or outlet of the control device to identify periods of no flow. Periods of no flow may not be used in daily or block averages, and it may not be used in fulfilling a minimum data availability requirement.

§ 63.8010 What requirements apply to my storage tanks?

(a) You must meet each emission limit in Table 2 to this subpart that applies to your storage tanks, and you must meet each applicable requirement specified in § 63.8000(b). For each control device used to comply with Table 2 to this subpart, you must comply with subpart SS of this part 63 as specified in § 63.8000(c), except as specified in § 63.8000(d) and paragraphs (b) through (d) of this section.

(b) *Exceptions to subparts SS and WW of this part 63.* (1) If you conduct a performance test or design evaluation for a control device used to control emissions only from storage tanks, you must establish operating limits, conduct monitoring, and keep records using the same procedures as required in subpart SS of this part 63 for control devices used to reduce emissions from process vents instead of the procedures specified in §§ 63.985(c), 63.998(d)(2)(i), and 63.999(b)(2).

(2) When the term storage vessel is used in subparts SS and WW of this part 63, the term storage tank, as defined in § 63.8105 applies for the purposes of this subpart.

(c) *Planned routine maintenance.* The emission limits in Table 2 to this subpart for control devices used to control emissions from storage tanks do not apply during periods of planned routine maintenance. Periods of planned routine maintenance of each control device, during which the control device does not meet the emission limit specified in Table 2 to this subpart, must not exceed 240 hours per year (hr/yr). You may submit an application to the Administrator requesting an extension of this time limit to a total of 360 hr/yr. The application must explain why the extension is needed, it must indicate that no material will be added to the storage tank between the time the 240 hr/yr limit is exceeded and the control device is again operational, and it must be submitted at least 60 days before the 240 hr/yr limit will be exceeded.

(d) *Vapor balancing alternative.* As an alternative to the emission limits specified in Table 2 to this subpart, you may elect to implement vapor balancing in accordance with § 63.1253(f), except as specified in paragraphs (d)(1) and (2) of this section.

(1) To comply with § 63.1253(f)(6)(i), the owner or operator of an offsite cleaning and reloading facility must comply with §§ 63.7995 through 63.8105 instead of complying with § 63.1253(f)(7)(ii).

(2) You may elect to set a pressure relief device to a value less than the 2.5

psig required in § 63.1253(f)(5) if you provide rationale in your notification of compliance status report explaining why the alternative value is sufficient to prevent breathing losses at all times.

§ 63.8015 What requirements apply to my equipment leaks?

(a) You must meet each requirement in Table 3 to this subpart that applies to your equipment leaks, except as specified in paragraphs (b) through (d) of this section.

(b) The requirement in § 63.424(a) to inspect each piece of equipment during the loading of a gasoline cargo tank means when the equipment is operating in organic HAP service for the purposes of this subpart.

(c) When § 63.1036 refers to batch processes, any part of the miscellaneous coating manufacturing operations applies for the purposes of this subpart.

(d) For the purposes of this subpart, pressure testing for leaks in accordance with § 63.1036(b) is not required after reconfiguration of an equipment train if flexible hose connections are the only disturbed equipment.

§ 63.8020 What requirements apply to my wastewater streams?

(a) You must meet each requirement in Table 4 to this subpart that applies to your wastewater streams, and you must meet each applicable requirement specified in § 63.8000 and paragraphs (b) through (d) of this section.

(b) For each wastewater stream that you generate, you must either designate the wastewater stream as a Group 1 wastewater stream according to the procedures in paragraph (b)(1) of this section, or you must determine whether the wastewater stream is a Group 1 wastewater stream according to the procedures in paragraph (b)(2) of this section.

(1) You may designate any wastewater stream as a Group 1 wastewater stream. You do not have to determine the concentration for any designated Group 1 wastewater stream.

(2) For wastewater streams that you do not designate as Group 1 wastewater streams, you must use the procedures specified in § 63.144(b) to establish the concentrations, except as specified in paragraphs (b)(2)(i) and (ii) of this section.

(i) References to Table 8 compounds in § 63.144 do not apply for the purposes of this subpart.

(ii) *Alternative test methods.* (A) As an alternative to the test methods specified in § 63.144(b)(5)(i), you may use Method 8260 or 8270 as specified in § 63.1257(b)(10)(iii).

(B) As an alternative to using the methods specified in § 63.144(b)(5)(i), you may conduct wastewater analyses using Method 1666 or 1671 of 40 CFR part 136, appendix A, and comply with the sampling protocol requirements specified in § 63.144(b)(5)(ii). The validation requirements specified in § 63.144(b)(5)(iii) do not apply if you use Method 1666 or 1671 of 40 CFR part 136, appendix A.

(c) For each enhanced biological treatment unit used to comply with the requirements in Table 4 to this subpart, you must monitor total suspended solids (TSS), biological oxygen demand (BOD), and the biomass concentration. In the precompliance report you must identify and provide rationale for proposed operating limits for these parameters, methods for monitoring, the frequency of monitoring, and recordkeeping and reporting procedures that will demonstrate proper operation of the enhanced biological treatment unit. Alternatively, you may use the precompliance report to request to monitor other parameters, and you must include a description of planned reporting and recordkeeping procedures and the basis for the selected monitoring frequencies and the methods that will be used.

(d) If you transfer the wastewater offsite for enhanced biological treatment, you must obtain written certification from the offsite facility stating that the offsite facility will comply with the requirements of this subpart. The certifying entity may revoke the certification by providing 90 days notice. Upon expiration of the notice period, you may not transfer wastewater to that treatment facility.

§ 63.8025 What requirements apply to my transfer operations?

(a) You must comply with each emission limit and work practice standard in Table 5 to this subpart that applies to your transfer operations, and you must meet all applicable requirements specified in § 63.8000(b). For each control device used to comply with Table 5 to this subpart, you must comply with subpart SS of this part 63 as specified in § 63.8000(c), except as specified in § 63.8000(d) and paragraph (b) of this section.

(b) If you have Group 1 transfer operations, as defined in § 63.8105, then all transfer racks used for bulk loading coatings must meet the requirements for high throughput transfer racks in subpart SS of this part.

§ 63.8030 What requirements apply to my heat exchange systems?

(a) You must comply with the requirements specified in Table 6 to this subpart that apply to your heat exchange systems, except as specified in paragraphs (b) through (e) of this section.

(b) The phrase a chemical manufacturing process unit meeting the conditions of § 63.100(b)(1) through (b)(3) of this section in § 63.104(a) means the miscellaneous coating manufacturing operations defined in § 63.7985(b) for the purposes of this subpart.

(c) The reference to § 63.100(c) in § 63.104(a) does not apply for the purposes of this subpart.

(d) The reference to § 63.103(c)(1) in § 63.104(f)(1) does not apply. For the purposes of this subpart, records must be retained as specified in § 63.10(b)(1).

(e) The reference to the periodic report required by § 63.152(c) of subpart G of this part means the compliance report required by § 63.8075(e) for the purposes of this subpart.

Alternative Means of Compliance

§ 63.8050 How do I comply with emissions averaging for stationary process vessels at existing sources?

(a) As an alternative to complying with the requirements in Table 1 to this subpart for each individual stationary process vessel, you may elect to comply with emissions averaging for stationary process vessels greater than or equal to 250 gallons (gal) at your existing affected source as specified in paragraphs (b) through (e) of this section.

(b) *General requirements.* (1) A State may prohibit averaging of HAP emissions and require the owner or operator of an existing affected source to comply with the emission limits and work practice standards in Table 1 to this subpart.

(2) All stationary process vessels in an emissions averaging group must be equipped with a tightly-fitting vented cover.

(c) *Initial compliance.* To demonstrate initial compliance with the emissions averaging alternative, you must comply with the provisions in paragraphs (c)(1) through (4) of this section.

(1) Estimate uncontrolled emissions from each affected stationary process vessel in pounds per batch using the procedures specified in § 63.1257(d)(2), except as specified in paragraphs (c)(1)(i) and (ii) of this section. For the purposes of this section, uncontrolled emissions means the emissions from the vessel if it were equipped only with a tightly-fitting vented cover. You must identify the range of typical operating parameters and perform the calculation using the values that result in the highest emissions, and you must document the operating parameters and

resulting emissions calculations in the precompliance report.

(i) When you are required to calculate uncontrolled emissions from heating, you may not calculate emissions using Equation 13 of subpart GGG of this part 63.

(ii) The statement in § 63.1257(d)(2)(i)(B) that "the partial pressure of HAP shall be assumed to be 25 percent of the saturated value if the purge flow rate is greater than 100 scfm" does not apply. For the purposes of this subpart, multiply the HAP partial pressure in Equation 12 of 40 CFR part 63, subpart GGG by a HAP-specific saturation factor determined in accordance with Equations 1 through 3 of this section. Solve equation 1 of this section iteratively beginning with saturation factors (in the right-hand side of the equation) of 1.0 for each condensable compound. Stop iterating when the calculated saturation factors for all compounds are the same to two significant figures for subsequent iterations. Note that for multi-component emission streams, saturation factors must be calculated for all noncondensables in the emission stream.

$$S_i = \frac{K_i A}{K_i A + V + \sum_{i=1}^{n} S_i V_i^{sat}} \quad \text{Eq. 1}$$

$$V_i^{sat} = \frac{VP_i}{\left(P_T - \sum_{i=1}^{n} P_i\right)} \quad \text{Eq. 2}$$

$$K_i = K_o \left(\frac{M_o}{M_i}\right)^{1/3} \quad \text{Eq. 3}$$

where:

S_i=saturation factor for individual condensable compounds in the emission stream

P_i=partial pressure of individual condensable compounds in the emission stream calculated using Raoult's Law or other appropriate methods

P_T=pressure of the vessel vapor space

A=surface area of liquid

V=purge flow rate as used in Equation 12 of 40 CFR part 63, subpart GGG

V_i^{sat}=volumetric flowrate of condensable compounds in the emission stream

K_i=mass transfer coefficient of individual condensable compounds in the emission stream

K_o=mass transfer coefficient of a reference compound (*e.g.*, 0.83 cm/s for water)

M_o=molecular weight of reference compound (*e.g.*, 18.02 for water)

M_i=molecular weight of individual condensable compounds in the emission stream

n=number of condensable compounds in the emission stream

(2) Estimate controlled emissions in pounds per batch for each vessel as specified in paragraphs (c)(2)(i) through (iii) of this section.

(i) Except as specified in paragraphs (c)(2)(ii) and (iii) of this section, estimate controlled emissions as if the vessel were controlled in compliance with entry 2.b.i. in Table 1 to this subpart.

(ii) Estimate the controlled emissions using the control level achieved on November 15, 1990 if that value is greater than the applicable control level required by entry 2.b.i in Table 1 to this subpart.

(iii) Estimate the controlled emissions using the control level required to comply with a State or Federal rule other than this subpart if that level is greater than the applicable control level required by entry 2.b.i in Table 1 to this subpart and the other rule was in effect before the date when you request approval to comply with emissions averaging.

(3) Determine actual emissions in pounds per batch for each vessel in accordance with paragraphs (c)(2)(i), (ii), or (iii), as applicable.

(i) If emissions are routed through a closed-vent system to a condenser control device, determine controlled emissions using the procedures specified in § 63.1257(d)(3).

(ii) If emissions are routed through a closed-vent system to any control device other than a condenser, determine actual emissions after determining the efficiency of the control device using the procedures in subpart SS of this part 63 as specified in § 63.8000(c).

(iii) If the vessel is vented to the atmosphere, then actual emissions are equal to the uncontrolled emissions estimated in accordance with paragraph (c)(1) of this section.

(4) Provide rationale in the precompliance report for why the sum of the actual emissions will be less than the sum of emissions from the vessels if they had been controlled in accordance with Table 1 to this subpart. The approved actual emissions calculated according to paragraph (c)(3) of this section are emission limits that must be incorporated into your operating permit.

(d) *Continuous compliance.* (1) Maintain a monthly log of the number of batches produced that can be correlated with the emissions estimates per batch developed in accordance with paragraph (c) of this section.

(2) Sum the actual emissions for all of the process vessels in the emissions averaging group every three months, with the first 3-month period beginning on the compliance date, and compare the resulting total with the total emissions for the vessels calculated in accordance with paragraph (c)(2) of this section. Compliance is demonstrated if the sum of the actual emissions is less than the emissions estimated in accordance with paragraph (c)(2) of this section.

(3) For control devices, establish operating limits and monitor as specified in § 63.8000.

(e) *Recordkeeping and reporting.* Comply with §§ 63.8070, 63.8075, and 63.8080.

§ 63.8055 How do I comply with a weight percent HAP limit in coating products?

(a) As an alternative to complying with the requirements in Table 1 to this subpart for each individual stationary process vessel at an existing source, you may elect to comply with a 5 weight percent HAP limit for process vessels at your affected source that are used to manufacture coatings with a HAP content of less than 0.05 kg per kg product as specified in paragraph (b) of this section.

(b) You may only comply with the alternative during the production of coatings that contain less than 5 weight percent HAP, as determined using any of the procedures specified in paragraphs (b)(1) through (3) of this section.

(1) Method 311 (appendix A to 40 CFR part 63).

(2) Method 24 (appendix A to 40 CFR part 60). You may use Method 24 to determine the mass fraction of volatile matter and use that value as a substitute for the mass fraction of HAP.

(3) You may use an alternative test method for determining mass fraction of HAP if you obtain prior approval by the Administrator. You must follow the procedure in § 63.7(f) to submit an alternative test method for approval.

Notification, Reports, and Records

§ 63.8070 What notifications must I submit and when?

(a) You must submit all of the notifications in §§ 63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e), (f)(4) and (6), 63.9(b) through (h) that apply to you by the dates specified.

(b) *Initial notification.* (1) As specified in § 63.9(b)(2), if you have an existing affected source on December 11, 2003, you must submit an initial notification

not later than 120 calendar days after December 11, 2003.

(2) As specified in § 63.9(b)(3), if you start up your new affected source on or after December 11, 2003, you must submit an initial notification not later than 120 calendar days after you become subject to this subpart.

(c) *Notification of performance test.* If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required in § 63.7(b)(1). For any performance test required as part of the initial compliance procedures for process vessels in Table 1 to this subpart, you must also submit the test plan required by § 63.7(c) and the emission profile with the notification of the performance test.

§ 63.8075 What reports must I submit and when?

(a) You must submit each report in Table 9 to this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report as specified in Table 9 to this subpart and paragraphs (b)(1) and (2) of this section.

(1) The compliance reports must be submitted semiannually. The first report must be submitted no later than 240 days after the applicable compliance date and shall cover the 6-month period beginning on the compliance date. Each subsequent compliance report must cover the 6-month period following the preceding period.

(2) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in Table 9.

(c) *Precompliance report.* You must submit a precompliance report to request approval of any of the information in paragraphs (c)(1) through (4) of this section. We will either approve or disapprove the report within 90 days after we receive it. If we disapprove the report, you must still be in compliance with the emission limitations and work practice standards in this subpart by the compliance date.

(1) Requests for approval to set operating limits for parameters other than those specified in §§ 63.8005 through 63.8025, including parameters for enhanced biological treatment units. Alternatively, you may make these requests according to § 63.8(f).

(2) Descriptions of daily or per batch demonstrations to verify that control devices subject to § 63.8000(d)(3) are operating as designed.

(3) A description of the test conditions, data, calculations, and other information used to establish operating limits according to § 63.8005(e)(1).

(4) If you comply with emissions averaging in § 63.8050, the data and results of emission calculations as specified in § 63.8050(c)(1) through (3), and rationale for why the sum of actual emissions will be less than the sum of emissions if the process vessels were controlled in accordance with Table 1 to this subpart as specified in § 63.8050(c)(4).

(d) *Notification of compliance status report.* You must submit a notification of compliance status report according to the schedule in paragraph (d)(2) of this section, and the notification of compliance status report must include the information specified in paragraph (d)(2) of this section.

(1) You must submit the notification of compliance status report no later than 150 days after the applicable compliance date specified in § 63.7995.

(2) The notification of compliance status report must include the information in paragraphs (d)(3)(i) through (vi) of this section.

(i) The results of any applicability determinations (*e.g.*, HAP content of coating products; halogenated vent stream determinations; group determinations for storage tanks, wastewater, and transfer operations; and equipment that is in organic HAP service).

(ii) The results of performance tests, engineering analyses, design evaluations, flare compliance assessments, inspections and repairs, and calculations used to demonstrate initial compliance according to §§ 63.8005 through 63.8025 and 63.8055. For performance tests, results must include descriptions of sampling and analysis procedures and quality assurance procedures.

(iii) Descriptions of monitoring devices, monitoring frequencies, and the operating limits established during the initial compliance demonstrations, including data and calculations to support the levels you establish.

(iv) Identification of parts of the affected source that are subject to overlapping requirements described in § 63.8090 and the authority under which you will comply.

(v) Identify storage tanks for which you are complying with the vapor balancing alternative in § 63.8010(e).

(vi) If you transfer Group 1 wastewater stream to an offsite facility for treatment, include the name and location of the transferee and a description of the Group 1 wastewater stream that is sent to the treatment facility. If the offsite facility provides enhanced biological treatment, also include the certification required by § 63.8020(d) that the offsite facility will comply with the requirements of this subpart.

(e) *Compliance report.* The compliance report must contain the information specified in paragraphs (e)(1) through (8) of this section.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) Applicable records and information for periodic reports as specified in referenced subparts F, SS, TT, UU, and WW of this part 63.

(5) For each SSM during which excess emissions occur, the compliance report must include the information specified in paragraphs (e)(5)(i) and (ii) of this section.

(i) Records that the procedures specified in your startup, shutdown, and malfunction plan (SSMP) were followed or documentation of actions taken that are not consistent with the SSMP.

(ii) A description of each malfunction.

(6) The compliance report must contain the information on deviations, as defined in § 63.8105, according to paragraphs (e)(6)(i), (ii), and (iii) of this section.

(i) If there are no deviations from any emission limit, operating limit, or work practice standard specified in this subpart, include a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.

(ii) For each deviation from an emission limit, operating limit, and work practice standard that occurs at an affected source where you are not using a continuous monitoring system (CMS) to comply with the emission limit or work practice standards in this subpart, you must include the information in paragraphs (e)(6)(ii)(A) through (C) of this section.

(A) The total operating time of each affected source during the reporting period.

(B) Information on the number, duration, and cause of deviations

(including unknown cause, if applicable), as applicable, and the corrective action taken.

(C) Operating logs for the day(s) during which the deviation occurred, except operating logs are not required for deviations of the work practice standards for equipment leaks.

(iii) For each deviation from an emission limit or operating limit occurring at an affected source where you are using a CMS to comply with the emission limit in this subpart, you must include the information in paragraphs (e)(6)(iii)(A) through (K) of this section. This includes periods of SSM.

(A) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(B) The date, time, and duration that each CEMS was out-of-control, including the information in § 63.8(c)(8).

(C) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(D) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(E) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(F) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.

(G) An identification of each HAP that is known to be in the emission stream or wastewater stream, as applicable.

(H) A description of the product being produced.

(I) Identification of the CMS.

(J) The date of the latest CMS certification or audit.

(K) The operating day or operating block average values of monitored parameters for each day(s) during which the deviation occurred.

(7) If you use a CEMS, and there were no periods during which it was out-of-control as specified in § 63.8(c)(7), include a statement that there were no periods during which the CEMS was out-of-control during the reporting period.

(8) *Notification of process change.* (i) Except as specified in paragraph (e)(8)(ii) of this section, whenever you change any of the information submitted in either the notification of compliance status report or any previously reported change to the notification of compliance status report, you must document the change in your compliance report. The notification must include all of the information in paragraphs (e)(8)(i)(A) and (B) of this section.

(A) Revisions to any of the information reported in the original notification of compliance status report under paragraph (d) of this section.

(B) Information required by the notification of compliance status report under paragraph (d) of this section for changes involving the addition of processes or equipment at the affected source.

(ii) You must submit a report 60 days before the scheduled implementation date of any of the changes identified in paragraphs (e)(8)(ii)(A), (B), or (C) of this section.

(A) Any change to the information contained in either the precompliance report or any previously reported change to the precompliance report.

(B) A change in the status of a control device from small to large.

(C) A change in compliance status.

§ 63.8080 What records must I keep?

You must keep the records specified in paragraphs (a) through (g) of this section.

(a) Each applicable record required by subpart A of this part 63 and in referenced subparts SS, TT, UU, and WW of this part 63.

(b) If complying with emissions averaging, records of the monthly number of batches for each process vessel, the quarterly actual emissions for each process vessel, the quarterly estimated emissions for each process vessel if it had been controlled as specified in Table 1 to this subpart, and comparison of the sums of the quarterly actual and estimated emissions as specified in § 63.8050(d).

(c) A record of each time a safety device is opened to avoid unsafe conditions in accordance with § 63.8000(b)(2).

(d) Records of the results of each CPMS calibration check and the maintenance performed, as specified in § 63.8000(d)(5).

(e) For each CEMS, you must keep the records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(f) In the SSMP required by § 63.6(e)(3), you are not required to include Group 2 or non-affected emission points. For equipment leaks only, the SSMP requirement is limited to control devices and is optional for other equipment.

(g) If you establish separate operating limits as allowed in § 63.8005(e), you must maintain a log of operation or a daily schedule indicating the time when you change from one operating limit to another.

Other Requirements and Information

§ 63.8090 What compliance options do I have if part of my plant is subject to both this subpart and another subpart?

(a) *Compliance with 40 CFR parts 264 and 265, subparts AA, BB, and/or CC.* (1) After the compliance dates specified in § 63.7995, if a control device that you use to comply with this subpart is also subject to monitoring, recordkeeping, and reporting requirements in 40 CFR part 264, subpart AA, BB, or CC; or the monitoring and recordkeeping requirements in 40 CFR part 265, subpart AA, BB, or CC; and you comply with the periodic reporting requirements under 40 CFR part 264, subpart AA, BB, or CC that would apply to the device if your facility had final-permitted status, you may elect to comply either with the monitoring, recordkeeping, and reporting requirements of this subpart; or with the monitoring and recordkeeping requirements in 40 CFR part 264 or 265 and the reporting requirements in 40 CFR part 264, as described in this paragraph (a), which constitute compliance with the monitoring, recordkeeping, and reporting requirements of this subpart. If you elect to comply with the monitoring, recordkeeping, and reporting requirements in 40 CFR parts 264 and/or 265, you must report the information required for the compliance report in § 63.8075(e), and you must identify in the notification of compliance status report required by § 63.8075(d) the monitoring, recordkeeping, and reporting authority under which you will comply.

(2) After the compliance dates specified in this section, if any equipment at an affected source that is subject to this subpart is also subject to 40 CFR part 264, subpart BB or to 40 CFR part 265, subpart BB, then compliance with the recordkeeping and reporting requirements of 40 CFR part 264 and/or 265 may be used to comply with the recordkeeping and reporting requirements of § 63.1255, to the extent that the requirements of 40 CFR part 264 and/or 265 duplicate the requirements of this subpart. You must identify in the notification of compliance status report required by § 63.8075(d) if you will comply with the recordkeeping and reporting authority under 40 CFR part 264 and/or 265.

(b) *Compliance with 40 CFR part 60, subpart Kb.* After the compliance dates specified in § 63.7995, you are in compliance with this subpart for any storage tank that is assigned to miscellaneous coating manufacturing operations and that is both controlled with a floating roof and in compliance with the provisions of 40 CFR part 60, subpart Kb. You are in compliance with this subpart if you have a storage tank with a fixed roof, closed-vent system, and control device in compliance with 40 CFR part 60, subpart Kb, you must comply with the monitoring, recordkeeping, and reporting requirements in this subpart. You must also identify in your notification of compliance status report required by § 63.8075(d) which storage tanks are in compliance with 40 CFR part 60, subpart Kb.

§ 63.8095 What parts of the General Provisions apply to me?

Table 10 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

§ 63.8100 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (U.S. EPA), or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency also has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraphs (b)(1) through (4) of this section are retained by the Administrator of U.S. EPA and are not delegated to the State, local, or tribal agency.

(1) Approval of alternatives to the non-opacity emission limits and work practice standards in § 63.8000(a) under § 63.6(g).

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.8105 What definitions apply to this subpart?

(a) For an affected source complying with the requirements in subpart SS of this part 63, the terms used in this subpart and in subpart SS of this part 63 have the meaning given them in § 63.981, except as specified in §§ 63.8000(d)(5)(ii) and (7), 63.8010(c)(2), 63.8025(b), and paragraph (g) of this section.

(b) For an affected source complying with the requirements in subpart TT of this part 63, the terms used in this subpart and in subpart TT of this part 63 have the meaning given them in § 63.1001.

(c) For an affected source complying with the requirements in subpart UU of this part 63, the terms used in this subpart and in subpart UU of this part 63 have the meaning given them in § 63.1020.

(d) For an affected source complying with the requirements in subpart WW of this part 63, the terms used in this subpart and subpart WW of this part 63 have the meaning given them in § 63.1061, except as specified in §§ 63.8000(d)(7), 63.8010(c)(2), and paragraph (g) of this section.

(e) For an affected source complying with requirements in §§ 63.1253, 63.1257, and 63.1258, the terms used in this subpart and in §§ 63.1253, 63.1257, and 63.1258 have the meaning given them in § 63.1251, except as specified in § 63.8000(d)(7) and paragraph (g) of this section.

(f) For an affected source complying with the requirements of § 63.104, the terms used in this subpart and in § 63.104 have the meaning given them in § 63.101, except as specified in § 63.8000(d)(7) and paragraph (g) of this section.

(g) All other terms used in this subpart are defined in the CAA, in 40 CFR 63.2, and in this paragraph (g). If a term is defined in § 63.2, § 63.981, § 63.1001, § 63.1020, § 63.1061, or § 63.1251 and in this paragraph (g), the definition in this paragraph (g) applies for the purposes of this subpart.

Bulk loading means the loading, into a tank truck or rail car, of liquid coating products that contain one or more of the organic HAP, as defined in section 112 of the CAA, from a loading rack. A loading rack is the system used to fill tank trucks and railcars at a single geographic site.

Coating means any material such as a paint, ink, or adhesive that is intended to be applied to a substrate and consists of a mixture of resins, pigments, solvents, and/or other additives. Typically, these materials are described by Standard Industry Classification (SIC) codes 285 or 289 and North American Industry Classification System (NAICS) codes 3255 and 3259.

Construction means the onsite fabrication, erection, or installation of an affected source. Addition of new equipment to an affected source does not constitute construction, but it may constitute reconstruction of the affected source if it satisfies the definition of reconstruction in § 63.2.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limit, operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Enhanced biological treatment system means an aerated, thoroughly mixed treatment unit(s) that contains biomass suspended in water followed by a clarifier that removes biomass from the treated water and recycles recovered biomass to the aeration unit. The mixed liquor volatile suspended solids (biomass) is greater than 1 kilogram per cubic meter throughout each aeration unit. The biomass is suspended and aerated in the water of the aeration unit(s) either by submerged air flow or mechanical agitation. A thoroughly mixed treatment unit is a unit that is designed and operated to approach or achieve uniform biomass distribution and organic compound concentration throughout the aeration unit by quickly dispersing the recycled biomass and the wastewater entering the unit.

Excess emissions means emissions greater than those allowed by the emission limit.

Group 1a storage tank means a storage tank at an existing source with a capacity greater than or equal to 20,000 gal storing material that has a maximum true vapor pressure of total organic HAP greater than or equal to 1.9 pounds per square inch, absolute (psia). Group 1a storage tank also means a storage tank at a new source with either a capacity greater than or equal to 25,000 gal storing material that has a maximum true vapor pressure of total HAP greater than or equal to 0.1 psia or a capacity

greater than or equal to 20,000 gal and less than 25,000 gal storing material that has a maximum true vapor pressure of total HAP greater than or equal to 1.5 psia.

Group 1b storage tank means a storage tank at a new source that has a capacity greater than or equal to 10,000 gal, stores material that has a maximum true vapor pressure of total organic HAP greater than or equal to 0.02 psia, and is not a Group 1a storage tank.

Group 2 storage tank means a storage tank that does not meet the definition of a Group 1a or Group 1b storage tank.

Group 1 transfer operations means all bulk loading of coating products if the coatings contain greater than or equal to 3.0 million gallons per year (gal/yr) of HAP with a weighted average HAP partial pressure greater than or equal to 1.5 psia.

Group 2 transfer operations means bulk loading of coating products that does not meet the definition of Group 1 transfer operations.

Group 1 wastewater stream means a wastewater stream that contains total partially soluble and soluble HAP at an annual average concentration greater than or equal to 4,000 parts per million by weight (ppmw) and load greater than or equal to 750 pounds per year (lb/yr) at an existing source or greater than or equal to 1,600 ppmw and any partially soluble and soluble HAP load at a new source.

Group 2 wastewater stream means a wastewater stream that does not meet the definition of a Group 1 wastewater stream.

Halogenated vent stream means a vent stream determined to contain halogen atoms in organic compounds at a concentration greater than or equal to 20 ppmv as determined by the procedures specified in § 63.8000(b).

Hydrogen halide and halogen HAP means hydrogen chloride, chlorine, and hydrogen fluoride.

In organic HAP service means that a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 5 percent by weight of total organic HAP as determined according to the provisions of § 63.180(d). The provisions of § 63.180(d) also specify how to determine that a piece of equipment is not in organic HAP service.

Large control device means a control device that controls total HAP emissions of greater than or equal to 10 tpy, before control.

Maximum true vapor pressure means the equilibrium partial pressure exerted by the total organic HAP in the stored or transferred liquid at the temperature equal to the highest calendar-month average of the liquid storage or transfer temperature for liquids stored or transferred above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for liquids stored or transferred at the ambient temperature, as determined:

(1) In accordance with methods described in American Petroleum Institute Publication 2517, Evaporative Loss From External Floating-Roof Tanks (incorporated by reference as specified in § 63.14 of subpart A of this part 63); or

(2) As obtained from standard reference texts; or

(3) As determined by the American Society for Testing and Materials Method D2879–83 (incorporated by reference as specified in § 63.14 of subpart A of this part); or

(4) Any other method approved by the Administrator.

Partially soluble HAP means HAP listed in Table 7 of this subpart.

Point of determination (POD) means each point where process wastewater exits the miscellaneous coating operations.

Note to definition for point of determination: The regulation allows determination of the characteristics of a wastewater stream at the point of determination or downstream of the point of determination if corrections are made for changes in flow rate and annual average concentration of partially soluble and soluble HAP compounds as determined in § 63.144. Such changes include losses by air emissions; reduction of annual average concentration or changes in flow rate by mixing with other water or wastewater streams; and reduction in flow rate or annual average concentration by treating or otherwise handling the wastewater stream to remove or destroy HAP.

Process vessel means any stationary or portable tank or other vessel with a capacity greater than or equal to 250 gal and in which mixing, blending, diluting, dissolving, temporary holding, and other processing steps occur in the manufacturing of a coating.

Process vessel vent means a vent from a process vessel or vents from multiple process vessels that are manifolded together into a common header, through which a HAP-containing gas stream is, or has the potential to be, released to the atmosphere. Emission streams that are undiluted and uncontrolled containing less than 50 ppmv HAP, as determined through process knowledge that no HAP are present in the emission stream or using an engineering assessment as discussed in § 63.1257(d)(2)(ii), test data using Method 18 of 40 CFR part 60, appendix A, or any other test method that has been validated according to the procedures in Method 301 of appendix A of this part, are not considered process vessel vents. Flexible elephant trunk systems when used with closed vent systems and drawing ambient air (*i.e.*, the system is not ducted, piped, or otherwise connected to the unit operations) away from operators when vessels are opened are not process vessel vents. Process vessel vents do not include vents on storage tanks, wastewater emission sources, or pieces of equipment subject to the requirements in Table 3 of this subpart. A gas stream going to a fuel gas system is not a process vessel vent. A gas stream routed to a process for a process purpose is not a process vessel vent.

Recovery device, as used in the wastewater provisions, means an individual unit of equipment used for the purpose of recovering chemicals for fuel value (*i.e.*, net positive heating value), use, reuse, or for sale for fuel value, use, or reuse. Examples of equipment that may be recovery devices include organic removal devices such as decanters, strippers, or thin-film evaporation units. To be a recovery device, a decanter and any other equipment based on the operating principle of gravity separation must receive only multi-phase liquid streams. A recovery device is considered part of the miscellaneous coating manufacturing operations.

Responsible official means responsible official as defined in 40 CFR 70.2.

Safety device means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purposes of this subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the air emission control equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes and practices, or other

requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials.

Shutdown means the cessation of operation of an affected source, any process vessels within an affected source, or equipment required or used to comply with this subpart if steps taken to cease operation differ from those under routine procedures for removing the vessel or equipment from service. Shutdown also applies to the emptying and degassing of storage tanks.

Small control device means a control device that controls total HAP emissions of less than 10 tpy, before control.

Soluble HAP means the HAP listed in Table 8 of this subpart.

Startup means the setting in operation of a new affected source. For new equipment added to an affected source, including equipment required or used to comply with this subpart, startup means the first time the equipment is put into operation. Startup includes the setting in operation of equipment any time the steps taken differ from routine procedures for putting the equipment into operation.

Storage tank means a tank or other vessel that is used to store organic liquids that contain one or more HAP as raw material feedstocks or products. The following are not considered storage tanks for the purposes of this subpart:

(1) Vessels permanently attached to motor vehicles such as trucks, railcars, barges, or ships;

(2) Pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere;

(3) Vessels storing organic liquids that contain HAP only as impurities;

(4) Wastewater storage tanks; and

(5) Process vessels.

Total organic compounds or (TOC) means the total gaseous organic compounds (minus methane and ethane) in a vent stream.

Wastewater storage tank means a stationary structure that is designed to contain an accumulation of wastewater and is constructed primarily of nonearthen materials (*e.g.*, wood, concrete, steel, plastic) which provide structural support.

Wastewater stream means water that is discarded from miscellaneous coating manufacturing operations through a POD, and that contains an annual average concentration of total partially soluble and soluble HAP compounds of at least 1,600 ppmw at any flow rate. For the purposes of this subpart, noncontact cooling water is not considered a wastewater stream.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the Clean Air Act.

Tables to Subpart HHHHH of Part 63

As required in § 63.8005, you must meet each emission limit and work practice standard in the following table that applies to your process vessels:

TABLE 1 TO SUBPART HHHHH OF PART 63—EMISSION LIMITS AND WORK PRACTICE STANDARDS FOR PROCESS VESSELS

For each . . .	You must . . .	And you must . . .
1. Portable process vessel at an existing source.	Equip the vessel with a cover or lid that must be in place at all times when the vessel contains a HAP.	Non applicable
2. Stationary process vessel at an existing source.	a. Equip the vessel with a cover or lid that must be in place at all times when the vessel contains a HAP; or.	i. Considering both capture and any combination of control (except a flare), reduce emissions by ≥75 percent by weight for each HAP with a vapor pressure ≥0.6 kPa and by ≥60 percent for each HAP with a vapor pressure <0.6 kPa.
	b. Equip the vessel with a tightly fitting vented cover or lid that must be closed at all times when the vessel contains HAP.	i. Reduce emissions of each HAP with a vapor pressure ≥0.6 kPa by ≥75 percent by weight and each HAP with a vapor pressure <0.6 kPa by ≥60 percent by weight by venting emissions through a closed-vent system to any combination of control devices (except a flare); or ii. Reduce emissions of total organic HAP by venting emissions from a non-halogenated vent stream through a closed-vent system to a flare; or iii. Reduce emissions of total organic HAP by venting emissions through a closed-vent system to a condenser that reduces the outlet gas temperature to: <10°C if the process vessel contains HAP with a partial pressure <0.6 kPa, or <2°C if the process vessel contains HAP with a partial pressure ≥0.6 kPa and <17.2 kPa, or <−5°C if the process vessel contains HAP with a partial pressure ≥17.2 kPa.

TABLE 1 TO SUBPART HHHHH OF PART 63—EMISSION LIMITS AND WORK PRACTICE STANDARDS FOR PROCESS VESSELS—Continued

For each . . .	You must . . .	And you must . . .
3. Portable and stationary process vessel at a new source.	a. Equip the vessel with a tightly fitting vented cover or lid that must be closed at all times when the vessel contains HAP.	i. Reduce emissions of total HAP by ≥95 percent by weight by venting emissions through a closed-vent system to any combination of control devices (except a flare); or ii. Reduce emissions of total organic HAP by venting emissions from a non-halogenated vent stream through a closed-vent system to a flare; or iii. Reduce emissions of total organic HAP by venting emissions through a closed-vent system to a condenser that reduces the outlet gas temperature to: <−4°C if the process vessel contains HAP with a partial pressure <0.7 kPa, or <20°C if the process vessel contains HAP with a partial pressure ≥0.7 kPa and <17.2 kPa, or <−30°C if the process vessel contains HAP with a partial pressure ≥17.2 kPa.
4. Halogenated vent steam from a process vessel subject to the requirements of item 2 or 3 of this table for which you use a combustion control device to control organic HAP emissions.	a. Use a halogen reduction device after the combustion control device; or b. Use a halogen reduction device before the combustion control device.	i. Reduce overall emissions of hydrogen halide and halogen HAP by ≥95 percent; or ii. Reduce overall emissions of hydrogen halide and halogen HAP to ≤0.45 kilogram per hour (kg/hr). Reduce the halogen atom mass emission rate to ≤0.45 kg/hr.

As required in § 63.8010, you must meet each emission limit in the following table that applies to your storage tanks:

TABLE 2 TO SUBPART HHHHH OF PART 63—EMISSION LIMITS FOR STORAGE TANKS

For each . . .	Then you must . . .
1. Group 1a storage tank	a. Comply with the requirements of subpart WW of this part, except as specified in § 63.8010(b); or b. Reduce total organic HAP emissions from the storage tank by ≥90 percent by weight by venting emissions through a closed-vent system to any combination of control devices (excluding a flare); or c. Reduce total organic HAP emissions from the storage tank by venting emissions from a non-halogenated vent stream through a closed-vent system to a flare.
2. Group 1b storage tank	a. Comply with the requirements of subpart WW of this part, except as specified in § 63.8010(b); or b. Reduce total organic HAP emissions from the storage tank by ≥80 percent by weight by venting emissions through a closed-vent system to any combination of control devices (excluding a flare); or c. Reduce total organic HAP emissions from the storage tank by venting emissions from a non-halogenated vent stream through a closed-vent system to a flare.

As required in § 63.8015, you must meet each requirement in the following table that applies to your equipment leaks:

TABLE 3 TO SUBPART HHHHH OF PART 63—REQUIREMENTS FOR EQUIPMENT LEAKS

For all . . .	You must . . .
1. Equipment that is in organic HAP service at an existing source.	a. Comply with the requirements in §§ 63.424(a) through (d) and 63.428(e), (f), and (h)(4), except as specified in § 63.8015(b); or b. Comply with the requirements of subpart TT of this part; or c. Comply with the requirements of subpart UU of this part, except as specified in § 63.8015(c) and (d).
2. Equipment that is in organic HAP service at a new source.	a. Comply with the requirements of subpart TT of this part; or b. Comply with the requirements of subpart UU of this part, except as specified in § 63.8015(c) and (d).

TABLE 4 TO SUBPART HHHHH OF PART 63—EMISSION LIMITS AND WORK PRACTICE STANDARDS FOR WASTEWATER STREAMS

For each . . .	You must . . .
1. Wastewater tank used to store a Group 1 wastewater stream.	Maintain a fixed roof, which may have openings necessary for proper venting of the tank, such as pressure/vacuum vent or j-pipe vent.
2. Group 1 wastewater stream.	a. Convey using hard-piping and treat the wastewater as a hazardous waste in accordance with 40 CFR part 264, 265, or 266 either onsite or offsite; or b. If the wastewater contains <50 ppmw of partially soluble HAP, you may elect to treat the wastewater in an enhanced biological treatment system that is located either onsite or offsite.

As required in § 63.8025, you must meet each emission limit and work practice standard in the following table that applies to your transfer operations:

TABLE 5 TO SUBPART HHHHH OF PART 63—EMISSION LIMITS AND WORK PRACTICE STANDARDS FOR TRANSFER OPERATIONS

For each . . .	You must. . . .
1. Group 1 transfer operation vent stream.	a. Reduce emissions of total organic HAP by ≥75 percent by weight by venting emissions through a closed-vent system to any combination of control devices (except a flare); or b. Reduce emissions of total organic HAP by venting emissions from a non-halogenated vent stream through a closed-vent system to a flare; or c. Use a vapor balancing system designed and operated to collect organic HAP vapors displaced from tank trucks and railcars during loading and route the collected HAP vapors to the storage tank from which the liquid being loaded originated or to another storage tank connected by a common header.
2. Halogenated Group 1 transfer operation vent stream for which you use a combustion device to control organic HAP emissions.	a. Use a halogen reduction device after the combustion device to reduce emissions of hydrogen halide and halogen HAP by ≥95 percent by weight or to ≤0.45 kg/hr; or b. Use a halogen reduction device before the combustion device to reduce the halogen atom mass emission rate to ≤0.45 kg/hr.

As required in § 63.8030, you must meet each requirement in the following table that applies to your heat exchange systems:

TABLE 6 TO SUBPART HHHHH OF PART 63—REQUIREMENTS FOR HEAT EXCHANGE SYSTEMS

For each . . .	You must . . .
Heat exchange system, as defined in § 63.101.	Comply with the requirements in § 63.104, except as specified in § 63.8030.

As specified in § 63.8020, the partially soluble HAP in wastewater that are subject to management and treatment requirements in this subpart are listed in the following table:

TABLE 7 TO SUBPART HHHHH OF PART 63—PARTIALLY SOLUBLE HAZARDOUS AIR POLLUTANTS

Chemical name . . .	CAS No.
1. 1,1,1-Trichloroethane (methyl chloroform)	71556
2. 1,1,2,2-Tetrachloroethane	79345
3. 1,1,2-Trichloroethane	79005
4. 1,1-Dichloroethylene (vinylidene chloride)	75354
5. 1,2-Dibromoethane	106934
6. 1,2-Dichloroethane (ethylene dichloride)	107062
7. 1,2-Dichloropropane	78875
8. 1,3-Dichloropropene	542756
9. 2,4,5-Trichlorophenol	95954
10. 2-Butanone (MEK)	78933
11. 1,4-Dichlorobenzene	106467
12. 2-Nitropropane	79469
13. 4-Methyl-2-pentanone (MIBK)	108101
14. Acetaldehyde	75070
15. Acrolein	107028

TABLE 7 TO SUBPART HHHHH OF PART 63—PARTIALLY SOLUBLE HAZARDOUS AIR POLLUTANTS—Continued

Chemical name . . .	CAS No.
16. Acrylonitrile	107131
17. Allyl chloride	107051
18. Benzene	71432
19. Benzyl chloride	100447
20. Biphenyl	92524
21. Bromoform (tribromomethane)	75252
22. Bromomethane	74839
23. Butadiene	106990
24. Carbon disulfide	75150
25. Chlorobenzene	108907
26. Chloroethane (ethyl chloride)	75003
27. Chloroform	67663
28. Chloromethane	74873
29. Chloroprene	126998
30. Cumene	98828
31. Dichloroethyl ether	111444
32. Dinitrophenol	51285
33. Epichlorohydrin	106898
34. Ethyl acrylate	140885
35. Ethylbenzene	100414
36. Ethylene oxide	75218
37. Ethylidene dichloride	75343
38. Hexachlorobenzene	118741
39. Hexachlorobutadiene	87683
40. Hexachloroethane	67721
41. Methyl methacrylate	80626
42. Methyl-t-butyl ether	1634044
43. Methylene chloride	75092
44. N-hexane	110543
45. N,N-dimethylaniline	121697
46. Naphthalene	91203
47. Phosgene	75445
48. Propionaldehyde	123386
49. Propylene oxide	75569
50. Styrene	100425
51. Tetrachloroethylene (perchloroethylene)	79345
52. Tetrachloromethane (carbon tetrachloride)	56235
53. Toluene	108883
54. Trichlorobenzene (1,2,4–)	120821
55. Trichloroethylene	79016
56. Trimethylpentane	540841
57. Vinyl acetate	108054
58. Vinyl chloride	75014
59. Xylene (m)	108383
60. Xylene (o)	95476
61. Xylene (p)	106423

As specified in § 63.8020, the soluble HAP in wastewater that are subject to management and treatment requirements of this subpart are listed in the following table:

TABLE 8 TO SUBPART FFFF OF PART 63—SOLUBLE HAZARDOUS AIR POLLUTANTS

Chemical name . . .	CAS No.
1. Acetonitrile	75058
2. Acetophenone	98862
3. Diethyl sulfate	64675
4. Dimethyl hydrazine (1,1)	58147
5. Dimethyl sulfate	77781
6. Dinitrotoluene (2,4)	121142
7. Dioxane (1,4)	123911
8. Ethylene glycol dimethyl ether	110714
9. Ethylene glycol monobutyl ether acetate	112072
10. Ethylene glycol monomethyl ether acetate	110496
11. Isophorone	78591
12. Methanol	67561
13. Nitrobenzene	98953
14. Toluidine (o-)	95534

TABLE 8 TO SUBPART FFFF OF PART 63—SOLUBLE HAZARDOUS AIR POLLUTANTS—Continued

Chemical name . . .	CAS No.
15. Triethylamine	121448

As required in § 63.8075(a) and (b), you must submit each report that applies to you on the schedule shown in the following table:

TABLE 9 TO SUBPART HHHHH OF PART 63—REQUIREMENTS FOR REPORTS

You must submit a . . .	The report must contain . . .	You must submit the report . . .
1. Precompliance report	The information specified in § 63.8075(c)	At least 6 months prior to the compliance date; or for new sources, with the application for approval of construction or reconstruction.
2. Notification of compliance status report	The information specified in § 63.8075(d)	No later than 150 days after the compliance date specified in § 63.7995.
3. Compliance report	The information specified in § 63.8075(e)	Semiannually according to the requirements in § 63.8075(b).

As specified in § 63.8095, the parts of the General Provisions that apply to you are shown in the following table:

TABLE 10 TO SUBPART HHHHH OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART HHHHH

Citation	Subject	Explanation
§ 63.1	Applicability	Yes.
§ 63.2	Definitions	Yes.
§ 63.3	Units and Abbreviations	Yes.
§ 63.4	Prohibited Activities	Yes.
§ 63.5	Construction/Reconstruction	Yes.
§ 63.6(a)	Applicability	Yes.
§ 63.6(b)(1)–(4)	Compliance Dates for New and Reconstructed sources.	Yes.
§ 63.6(b)(5)	Notification	Yes.
§ 63.6(b)(6)	[Reserved].	
§ 63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major.	Yes.
§ 63.6(c)(1)–(2)	Compliance Dates for Existing Sources.	Yes.
§ 63.6(c)(3)–(4)	[Reserved].	
§ 63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major.	Yes.
§ 63.6(d)	[Reserved].	
§ 63.6(e)(1)–(2)	Operation & Maintenance	Yes.
§ 63.6(e)(3)(i), (ii), and (v) through (viii).	SSMP	Yes, except information regarding Group 2 emission points and equipment leaks is not required in the SSMP, as specified in § 63.8080(f).
§ 63.6(e)(3)(iii) and (iv)	Recordkeeping and Reporting During Startup, Shutdown, and Malfunction (SSM).	No, §§ 63.998(d)(3) and 63.998(c)(1)(ii)(D) through (G) specify the recordkeeping requirement for SSM events, and § 63.8075(e)(5) specifies reporting requirements.
§ 63.6(f)(1)	Compliance Except During SSM	Yes.
§ 63.6(f)(2)–(3)	Methods for Determining Compliance.	Yes.
§ 63.6(g)(1)–(3)	Alternative Standard	Yes.
§ 63.6(h)	Opacity/Visible Emission (VE) Standards.	Only for flares for which Method 22 observations are required as part of a flare compliance assessment.
§ 63.6(i)(1)–(14)	Compliance Extension	Yes.
§ 63.6(j)	Presidential Compliance Exemption.	Yes.
§ 63.7(a)(1)–(2)	Performance Test Dates	Yes, except substitute 150 days for 180 days.
§ 63.7(a)(3)	CAA Section 114 Authority	Yes, and this paragraph also applies to flare compliance assessments as specified under § 63.997(b)(2).
§ 63.7(b)(1)	Notification of Performance Test	Yes.

TABLE 10 TO SUBPART HHHHH OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART HHHHH—Continued

Citation	Subject	Explanation
§ 63.7(b)(2)	Notification of Rescheduling	Yes.
§ 63.7(c)	Quality Assurance/Test Plan	Yes, except the test plan must be submitted with the notification of the performance test if the control device controls process vessels.
§ 63.7(d)	Testing Facilities	Yes.
§ 63.7(e)(1)	Conditions for Conducting Performance Tests.	Yes, except that performance tests for process vessels must be conducted under worst-case conditions as specified in § 63.8005.
§ 63.7(e)(2)	Conditions for Conducting Performance Tests.	Yes.
§ 63.7(e)(3)	Test Run Duration	Yes.
§ 63.7(f)	Alternative Test Method	Yes.
§ 63.7(g)	Performance Test Data Analysis	Yes.
§ 63.7(h)	Waiver of Tests	Yes.
§ 63.8(a)(1)	Applicability of Monitoring Requirements.	Yes.
§ 63.8(a)(2)	Performance Specifications	Yes.
§ 63.8(a)(3)	[Reserved].	
§ 63.8(a)(4)	Monitoring with Flares	Yes.
§ 63.8(b)(1)	Monitoring	Yes.
§ 63.8(b)(2)–(3)	Multiple Effluents and Multiple Monitoring Systems.	Yes.
§ 63.8(c)(1)	Monitoring System Operation and Maintenance.	Yes.
§ 63.8(c)(1)(i)	Maintain and operate CMS	Yes.
§ 63.8(c)(1)(ii)	Routine repairs	Yes.
§ 63.8(c)(1)(iii)	SSMP for CMS	Yes.
§ 63.8(c)(2)–(3)	Monitoring System Installation	Yes.
§ 63.8(c)(4)	Requirements	Only for CEMS; requirements for CPMS are specified in referenced subpart SS of 40 CFR part 63. This subpart does not contain requirements for continuous opacity monitoring systems (COMS).
§ 63.8(c)(4)(i)	CMS Requirements	No. This subpart does not require COMS.
§ 63.8(c)(4)(ii)	CMS requirements	Yes.
§ 63.8(c)(5)	COMS Minimum Procedures	No. This subpart does not contain opacity or VE limits.
§ 63.8(c)(6)	CMS Requirements	Only for CEMS; requirements for CPMS are specified in referenced subpart SS of 40 CFR part 63.
§ 63.8(c)(7)–(8)	CMS Requirements	Only for CEMS. Requirements for CPMS are specified in referenced subpart SS of 40 CFR part 63.
§ 63.8(d)	CMS Quality Control	Only for CEMS; requirements for CPMS are specified in referenced subpart SS of 40 CFR part 63.
§ 63.8(e)	CMS Performance Evaluation	Section 63.8(e)(6)(ii) does not apply because this subpart does not require COMS. Other sections apply only for CEMS; requirements for CPMS are specified in referenced subpart SS of 40 CFR part 63.
§ 63.8(f)(1)–(5)	Alternative Monitoring Method	Yes, except you may also request approval using the precompliance report.
§ 63.8(f)(6)	Alternative to Relative Accuracy Test.	Only for CEMS.
§ 63.8(g)(1)–(4)	Data Reduction	Only when using CEMS, except § 63.8(g)(2) does not apply because data reduction requirements for CEMS are specified in § 63.8000(d)(4)(iv). The requirements for COMS do not apply because this subpart has no opacity or VE limits.
§ 63.8(g)(5)	Data Reduction	No. Requirements for CEMS are specified in § 63.8000(d)(4). Requirements for CPMS are specified in referenced subpart SS of 40 CFR part 63.
§ 63.9(a)	Notification Requirements	Yes.
§ 63.9(b)(1)–(5)	Initial Notifications	Yes.
§ 63.9(c)	Request for Compliance Extension	Yes.
§ 63.9(d)	Notification of Special Compliance Requirements for New Source.	Yes.
§ 63.9(e)	Notification of Performance Test	Yes.
§ 63.9(f)	Notification of VE/Opacity Test	No. This subpart does not contain opacity or VE limits.
§ 63.9(g)	Additional Notifications When Using CMS.	Only for CEMS; requirements for CPMS are specified in referenced subpart SS of 40 CFR part 63.
§ 63.9(h)(1)–(6)	Notification of Compliance Status	Yes, except this subpart has no opacity or VE limits, and § 63.9(h)(2) does not apply because § 63.8075(d) specifies the required contents and due date of the notification of compliance status report.
§ 63.9(i)	Adjustment of Submittal Deadlines	Yes.
§ 63.9(j)	Change in Previous Information	No, § 63.8075(e)(8) specifies reporting requirements for process changes.
§ 63.10(a)	Recordkeeping/Reporting	Yes.
§ 63.10(b)(1)	Recordkeeping/Reporting	Yes.

TABLE 10 TO SUBPART HHHHH OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART HHHHH—Continued

Citation	Subject	Explanation
§ 63.10(b)(2)(i)–(iv)	Records related to SSM	No, §§ 63.998(d)(3) and 63.998(c)(1)(ii)(D) through (G) specify recordkeeping requirements for periods of SSM.
§ 63.10(b)(2)(iii)	Records related to maintenance of air pollution control equipment.	Yes.
§ 63.10(b)(2)(vi), (x), and (xi)	CMS Records	Only for CEMS; requirements for CPMS are specified in referenced subpart SS of 40 CFR part 63.
§ 63.10(b)(2)(vii)–(ix)	Records	Yes.
§ 63.10(b)(2)(xii)	Records	Yes.
§ 63.10(b)(2)(xiii)	Records	Yes.
§ 63.10(b)(2)(xiv)	Records	Yes.
§ 63.10(b)(3)	Records	Yes.
§ 63.10(c)(1)–(6),(9)–(15)	Records	Only for CEMS; requirements for CPMS are specified in referenced subpart SS of 40 CFR part 63.
§ 63.10(c)(7)–(8)	Records	No. Recordkeeping requirements are specified in § 63.8080.
§ 63.10(d)(1)	General Reporting Requirements	Yes.
§ 63.10(d)(2)	Report of Performance Test Results.	Yes.
§ 63.10(d)(3)	Reporting Opacity or VE Observations.	No. This subpart does not contain opacity or VE limits.
§ 63.10(d)(4)	Progress Reports	Yes.
§ 63.10(d)(5)(i)	SSM Reports	No, § 63.8075(e)(5) and (6) specify the SSM reporting requirements.
§ 63.10(d)(5)(ii)	Immediate SSM reports	No.
§ 63.10(e)(1)–(2)	Additional CMS Reports	Only for CEMS, but § 63.10(e)(2)(ii) does not apply because this subpart does not require COMS.
§ 63.10(e)(3)	Reports	No. Reporting requirements are specified in § 63.8075.
§ 63.10(e)(3)(i)–(iii)	Reports	No. Reporting requirements are specified in § 63.8075.
§ 63.10(e)(3)(iv)–(v)	Excess Emissions Reports	No. Reporting requirements are specified in § 63.8075.
§ 63.10(e)(3)(vi–viii)	Excess Emissions Report and Summary Report.	No. Reporting requirements are specified in § 63.8075.
§ 63.10(e)(4)	Reporting COMS data	No. This subpart does not contain opacity or VE limits.
§ 63.10(f)	Waiver for Recordkeeping/Reporting.	Yes.
§ 63.11	Flares	Yes.
§ 63.12	Delegation	Yes.
§ 63.13	Addresses	Yes.
§ 63.14	Incorporation by Reference	Yes.
§ 63.15	Availability of Information	Yes.

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Part II

Environmental Protection Agency

40 CFR Part 63
National Emission Standards for Hazardous Air Pollutants: Mercury Emissions from Mercury Cell Chlor-Alkali Plants; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[OAR–2002–0017; FRL–7551–5]

RIN 2060–AE85

National Emission Standards for Hazardous Air Pollutants: Mercury Emissions From Mercury Cell Chlor-Alkali Plants

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national emission standards for hazardous air pollutants (NESHAP), specifically mercury emissions, from mercury cell chlor-alkali plants. The final rule will limit mercury air emissions from these plants. The final rule will implement section 112(d) of the Clean Air Act (CAA) which requires all categories and subcategories of major sources and area sources listed under section 112(c) to meet hazardous air pollutant emission standards reflecting the application of the maximum achievable control technology (MACT). Mercury cell chlor-alkali plants are a subcategory of the chlorine production source category listed under the authority of section 112(c)(1) of the CAA. The chlorine production source category was also identified as a source of mercury under section 112(c)(6) that must be subjected to standards. In addition, mercury cell chlor-alkali plants were listed as an area source category under section 112(c)(3) and (k)(3)(B) of the CAA. The final rule, which will satisfy our requirement to issue 112(d) regulations under each of these listings (for mercury), will reduce mercury emissions by about 3,068 kilograms per year from the levels allowed by the existing Mercury NESHAP.

Mercury is a neurotoxicant that accumulates, primarily in the especially potent form of methylmercury, in aquatic food chains. The highest levels are reached in predator fish species. Mercury emitted to the air from various types of sources (usually in the elemental or inorganic forms) transports through the atmosphere and eventually deposits onto land or water bodies. When mercury is deposited to surface waters, natural processes (bacterial) can transform some of the mercury into methylmercury that accumulates in fish. Ingestion is the primary exposure route of interest for methylmercury. The health effect of greatest concern due to methylmercury is neurotoxicity, particularly with respect to fetuses and young children.

In addition, in this final action, we are utilizing our authority under section 112(d)(4) of the CAA not to regulation chlorine and hydrochloric acid (HCl) emissions from the mercury cell chlor-alkali plant subcategory.

EFFECTIVE DATE: December 19, 2003.

ADDRESSES: *Docket.* We have established an official public docket for this action under Docket ID No. OAR–2002–0017, A–2000–32, A–2002–09, and OAR–2002–0016 available for public viewing at the Office of Air and Radiation Docket and Information Center (Air Docket) in the EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Avenue, NW., Washington, DC.

FOR FURTHER INFORMATION CONTACT: For information concerning applicability and rule determinations, contact your State or local regulatory agency representative or the appropriate EPA Regional Office representative. For information concerning analyses performed in developing the final rule, contact Mr. Iliam Rosario, Metals Group, Emission Standards Division (C439–02), U.S. EPA, Research Triangle Park, North Carolina 27711; telephone number (919) 541–5308; fax number (919) 541–5600; electronic mail address: *rosario.iliam@epa.gov.*

SUPPLEMENTARY INFORMATION: *Docket.* The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, the public docket does not include Confidential Business Information or other information whose disclosure is restricted by statute.

The official public docket is the collection of materials that is available for public viewing. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742.

Electronic Docket Access. You may access the final rule electronically through the EPA Internet under the **Federal Register** listings at *http://www.epa.gov/fedrgstr/.*

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility in the above paragraph entitled "Docket." Once in the system, select "search," then key in the appropriate docket identification number.

Judicial Review. Under CAA section 307(b), judicial review of the final NESHAP is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit on or before February 17, 2004. Only those objections to the NESHAP which were raised with reasonable specificity during the period for public comment may be raised during judicial review. Under section 307(b)(2)of the CAA, the requirements established by today's final action may not be challenged separately in any civil or criminal proceeding we bring to enforce these requirements.

Regulated Entities. Categories and entities potentially regulated by this action include:

Category	SIC [1]	NAICS [2]	Regulated entities
Industry	2812	325181	Alkalies and Chlorine Manufacturing.

[1] Standard Industrial Classification.
[2] North American Information Classification System.

This list is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your facility is regulated by this action, you should examine the applicability criteria in § 63.8182 of the final rule. If you have questions regarding the applicability of this action to a particular entity, consult your State or local agency (or EPA Regional Office) described in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Worldwide Web (WWW). In addition to being available in the docket, an

electronic copy of the final rule will also be available on the WWW through the Technology Transfer Network (TTN). Following signature, a copy of the final rule will be posted on the TTN's policy and guidance page for newly proposed or promulgated rules *http://www.epa.gov/ttn/oarpg.*

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I. Introduction and Background

A. What Is the Source of Authority for Development of NESHAP?

Section 112 of the CAA contains our authorities for reducing emissions of hazardous air pollutants (HAP). Section 112(c)(1) of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. Section 112(c)(6) requires us to list source categories and subcategories assuring that sources accounting for not less than 90 percent of the aggregate emissions of each of seven specific pollutants (including mercury) are subject to standards under section 112(d) of the CAA. Finally, section 112(c)(3) and (k)(3)(B) require that we list source categories to ensure that area sources representing 90 percent of the area source emissions of the 30 urban HAP are subject to regulation under section 112(d).

B. What Is the Source Category?

The chlorine production source category was initially listed as a category of major sources of HAP pursuant to section 112(c)(1) of the CAA on July 16, 1992 (57 FR 31576). At the time of the initial listing, we defined the chlorine production source category as follows:

> The Chlorine Production Source Category includes any facility engaged in the production of chlorine. The category includes, but is not limited to, facilities producing chlorine by the following production methods: diaphragm cell, mercury cell, membrane cell, hybrid fuel cell, Downs cell, potash manufacture, hydrochloric acid decomposition, nitrosyl chloride process, nitric acid/salt process, Kel-Chlor process, and sodium chloride/sulfuric acid process.

In our subsequent analysis of the chlorine production source category, we did not identify any facilities that produce chlorine using hybrid fuel cells, the nitrosyl chloride process, the Kel-Chlor process, the sodium chloride/sulfuric acid process, or as a by-product from potash manufacturing. The majority of the source category is made up of chlor-alkali plants that produce chlorine and caustic (sodium hydroxide) using mercury cells, diaphragm cells, or membrane cells. We also identified operating plants that produce chlorine as a by-product: one from the production of sodium metal in Down cells, another from the production of potassium nitrate fertilizer that uses the nitric acid/salt process, and a third that produces chlorine as a by-product from primary magnesium refining (magnesium refining is a separately listed source category and will be addressed on its own in a separate rulemaking). In addition, at a site where a membrane cell process is located, we have also identified a process that produces chlorine through the decomposition of HCl. Our analysis shows that the only HAP emitted from sources within this chlorine production source category are chlorine, HCl, and mercury; and mercury is only emitted from mercury cell chlor-alkali plants.

In addition to the listing pursuant to section 112(c)(1), chlor-alkali production was among the categories of sources identified pursuant to section 112(c)(6) to achieve the 90 percent goal for mercury. While this category was titled "chlor-alkali production," the only sources of mercury emissions are mercury cell chlor-alkali plants. However, the mercury cell chlor-alkali subcategory was not officially "listed" under section 112(c)(6) because the chlorine production source category was already listed under section 112(c)(1), and sources of mercury emissions at mercury cell chlor-alkali plants would be subject to section 112(d)(2) standards via that chlorine production source category listing.

Finally, on July 19, 1999 (64 FR 38706), we listed Mercury Cell Chlor-Alkali Plants as an area source category. In this listing, Mercury Cell Chlor-Alkali Plants were identified as one of the area source categories that contribute at least 15 percent of the total area source mercury emissions.

Because of the differences in the production methods and the HAP emitted, we decided to divide the chlorine production category into two subcategories: (1) Mercury cell chlor-alkali plants, and (2) chlorine production plants that do not rely upon mercury cells for chlorine production (diaphragm cell chlor-alkali plants, membrane cell chlor-alkali plants, *etc.*). Thus, on July 3, 2002, we issued separate proposals to address the emissions of mercury from the mercury cell chlor-alkali plant subcategory

sources (67 FR 44672) and the emissions of chlorine and HCl from both non-mercury cell chlorine production subcategory sources and mercury chlor-alkali plant subcategory sources (67 FR 44713).

C. What Criteria Are Used in the Development of NESHAP?

Section 112(d)(2) of the CAA specifies that NESHAP for new and existing sources must reflect the maximum degree of reduction in HAP emissions that is achievable, taking into consideration the cost of achieving the emissions reductions, any non-air quality health and environmental benefits, and energy requirements. This level of control is commonly referred to as MACT.

Section 112(d)(3) defines the minimum level of control or floor allowed for NESHAP. In essence, the MACT floor ensures that the standards are set at a level that assures that all affected sources achieve the level of control at least as stringent as that already achieved by the better-controlled and lower-emitting sources in each source category or subcategory. For new sources, the MACT floor cannot be less stringent than the emission control that is achieved in practice by the best-controlled similar source. The MACT standards for existing sources cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources in the category or subcategory (or the best-performing five sources for categories or subcategories with fewer than 30 sources).

In developing MACT, we also consider control options that are more stringent than the floor. We may establish standards more stringent than the floor based on the consideration of cost of achieving the emissions reductions, any non-air quality health and environmental impacts, and energy impacts.

The CAA includes exceptions to the general statutory requirement to establish emission standards based on MACT. For pollutants for which a threshold has been established, section 112(d)(4) allows us "to consider such threshold level, with an ample margin of safety, when establishing emissions standards. * * *."

D. What Actions Were Proposed for This Source Category?

As discussed above, we divided the chlorine production source category into mercury cell chlor-alkali plants, and chlorine production plants that do not rely upon mercury cells for chlorine production (non-mercury cell chlorine production). On July 3, 2002, we proposed one action to address mercury emissions from the mercury cell chlor-alkali plant subcategory, and a separate action to address chlorine and HCl emissions from both subcategories.

For mercury emissions from mercury cell chlor-alkali plant subcategory sources, we issued a proposed rule based on MACT (67 FR 44672). Comments were received on the proposed rule and today's action issues the final rule for the mercury emissions from the mercury cell chlor-alkali plant subcategory.

We also proposed not to regulate chlorine and HCl emissions from both the mercury cell chlor-alkali plant and non-mercury cell chlorine production subcategories under our authority in section 112(d)(4) of the CAA (67 FR 44713). We based this decision on our determination that no further control is necessary because chlorine and HCl are "health threshold pollutants," and chlorine and HCl levels emitted from chlorine production processes are below their threshold values within an ample margin of safety. The basis for the determination was a series of site-specific risk assessments for every chlorine production facility in the United States that was located at a major source plant site. In addition, we concluded, using a qualitative evaluation, that chlorine and HCl emissions from these chlorine production facilities did not result in adverse environmental effects. Background for this action is contained in Docket OAR–2002–0016 or Docket A–2002–09. Public comments on the proposed action were received, and we are finalizing actions addressing chlorine and HCl emissions in today's **Federal Register**. In today's final action, we are utilizing our authority under section 112(d)(4) not to regulate chlorine and HCl emissions from the mercury cell chlor-alkali plant subcategory. Final action addressing the emissions of chlorine and HCl from the non-mercury cell chlorine production subcategory is contained elsewhere in today's **Federal Register**.

E. How Did the Public Participate in Developing the Rulemaking?

Prior to proposal, we met with industry representatives and State regulatory authorities several times to discuss the data and information used to develop the proposed standards. In addition, these and other potential stakeholders, including equipment vendors and environmental groups, had opportunity to comment on the proposed standards.

The proposed rule was published in the **Federal Register** on July 3, 2002 (67 FR 44672). The preamble to the proposed rule discussed the availability of technical support documents, which described in detail the information gathered during the standards development process. Public comments were solicited at proposal.

We received nine public comment letters on the proposed rule (two of which were received well after the close of the comment period). The commenters represent the following affiliations: Mercury cell chlor-alkali companies, industrial trade associations, environmental/conservation organizations, and a women's advocacy organization. In the post-proposal period, we talked with commenters and other stakeholders to clarify comments and to assist in our analysis of the comments. Records of these contacts are found in Docket OAR–2002–0017 or Docket A–2000–32. All of the comments have been carefully considered, and, where appropriate, the final rule has been written to so reflect.

The proposed action not to regulate chlorine and HCl emissions was published in the **Federal Register** on July 3, 2002 (67 FR 44713). The preamble to the proposed action discussed the availability of technical support documents, which described in detail the information gathered during the standards development process. Public comments were solicited at proposal.

We received eight public comment letters on the proposed action. The commenters represent the following affiliations: Industry representatives, governmental entities, and environmental groups. In the post-proposal period, we talked with commenters and other stakeholders to clarify comments and to assist in our analysis of the comments. Records of these contacts are found in Docket OAR–2002–0016 or Docket A–2002–09. All of the comments have been carefully considered.

F. What Is a Mercury Cell Chlor-alkali Plant?

Today's NESHAP apply to mercury emissions from mercury cell chlor-alkali plants. Mercury cells are considerably larger than other types of chlor-alkali cells. A mercury cell plant typically has scores of individual cells (around 60 feet long and 9 feet wide) housed in one or more cell buildings. Mercury cells are electrically connected together in series with circuits of 30 or more cells.

In the mercury cell process, each cell actually involves two distinct operations. The electrolytic cell

produces chlorine gas, and a separate decomposer produces hydrogen gas and caustic solution. There is one decomposer associated with each cell, located directly underneath the cell. The cell and the decomposer are linked at the two ends by an inlet end box and an outlet end box.

A stream of liquid mercury flows in a continuous loop between the electrolytic cell and the decomposer. The mercury enters the cell at the inlet end box and flows down a slight grade to the outlet end box. At the outlet end box, the mercury flows out of the cell and falls down to the decomposer. After being processed in the decomposer, the mercury is pumped back up to the inlet end box of the electrolytic cell.

Saturated salt brine (using either sodium chloride or potassium chloride) is fed to the electrolytic cell at the inlet end box and flows toward the outlet end box on top of the mercury stream. The brine and mercury flow under a dimensionally stable metal anode made of a titanium substrate with a metal catalyst. The mercury forms the cathode of the cell.

An electric current is applied between the anode and the mercury cathode. The electric current causes a reaction producing chlorine gas at the anode and a mercury:sodium (HgNa) or mercury:potassium (HgK) amalgam at the cathode. Chlorine is collected at the top of the cell. The amalgam ultimately exits at the outlet end box, falling into the decomposer. Depleted brine also exits the cell at the outlet end box. This brine is generally piped to a tank for resaturation and reuse.

The decomposer is a packed bed reactor where the mercury amalgam is contacted with deionized water in the presence of a catalyst. The amalgam reacts with the water, regenerating elemental mercury and producing caustic (NaOH or KOH) and hydrogen. The caustic and mercury are separated in a trap at the end of the decomposer. The caustic and hydrogen are transferred to auxiliary processes for purification, and the mercury is recycled back to the cell.

Chlorine is collected from the tops of the mercury cells by a common header system which runs through the cell building. Hydrogen is collected from the amalgam decomposers in a common header system. The hydrogen stream contains a small amount of mercury vapor from the liquid mercury processed in the decomposer. To remove the mercury vapor, the hydrogen stream is typically cooled, passed through a mist eliminator, and usually sent to a finishing device such as a carbon adsorber. The hydrogen may then be discharged to the atmosphere, used on-site, or sold for use off-site.

In a mercury cell process, a 50 percent caustic solution is obtained directly from the amalgam decomposers. Thus, the mercury cell caustic requires little further processing to yield a commercial product.

Contaminated mercury and mercury-containing wastes are generated from a number of sources at a mercury cell plant. These include the hydrogen treatment operation, the brine and caustic treatment operations, and mercury leaks or spills. Many plants recover mercury from these wastes on-site in a mercury retort, or mercury thermal recovery unit.

Mercury is emitted from two point sources associated with the production of chlorine—the end box ventilation system and by-product hydrogen system. Mercury is also emitted from mercury thermal recovery units, which is also a point source. In addition, there are mercury fugitive emissions from the cell rooms and from the waste recovery areas.

In addition to mercury, chlorine and HCl are emitted from mercury cell plants. Chlorine can be emitted from the tail gas stream from the final liquefier, the cell room, and equipment in chlorine service. Hydrochloric acid is used to pretreat feed brine prior to entering a chlor-alkali cell, and at other locations throughout the process to adjust pH. It can also be emitted from storage tanks and equipment in HCl service.

G. How Does This Action Relate to the 40 CFR Part 61 Mercury NESHAP?

We promulgated the National Emission Standard for Mercury on April 6, 1973 (40 CFR part 61, subpart E).[1] Those standards (hereafter referred to as the Mercury NESHAP) limit mercury emissions from mercury cell chlor-alkali plants as well as mercury ore processing facilities and sludge incineration and drying plants. Specifically, the Mercury NESHAP limit mercury emissions from mercury cell chlor-alkali plants to 2.3 kilogram (kg) (5.1 pound (lb)) of mercury per 24-hour period and requires that mercury emissions be measured (in a one-time test) from hydrogen streams, end box ventilation systems, and the cell room ventilation system. As an alternative to measuring ventilation emissions from the cell room to demonstrate compliance, the Mercury NESHAP allow an owner or operator to assume a cell room ventilation emission value of 1.3 kg (2.9 lb) per day of mercury providing the owner/operator adheres to a suite of approved design, maintenance and housekeeping practices. Every mercury cell chlor-alkali plant currently in operation in the United States complies with the cell room ventilation provisions by carrying out these practices rather than by measuring mercury emissions discharged from the cell room. Since every plant uses the 1.3 kg per day assumed value for its cell room ventilation emissions, subtracting the 1.3 kg per day cell room value from the 2.3 kg per 24-hour period plantwide standard effectively creates an emission limit for the combined emissions from hydrogen streams and end box ventilation systems of 1.0 kg per day (1,000 grams per day).

The requirements in today's final standards are more stringent than the requirements in the Mercury NESHAP. Using the 1,000 grams per day value as the baseline, we estimate that mercury emissions will be reduced to less than 60 grams per day (on average) by the final rule. This represents about 94 percent reduction from the Mercury NESHAP baseline for vents. In addition, the work practice standards in today's final rule represent the most explicit compilation of practices currently employed by the industry, along with detailed recordkeeping and reporting requirements. While we cannot quantify the mercury emissions reductions that would be achieved by the final work practice standards, we are confident that their implementation would result in additional reductions in mercury emissions beyond that currently achieved by the existing Mercury NESHAP.

Every aspect of the Mercury NESHAP that applies to mercury cell chlor-alkali plants is addressed in today's final rule (40 CFR part 63, subpart IIIII). In fact, as discussed above, the requirements are more stringent than the respective requirements in the Mercury NESHAP. Consequently, when mercury cell chlor-alkali plants are required to comply with the final rule, the requirements of the Mercury NESHAP that apply to them will no longer be relevant or applicable. Therefore, upon the compliance date as indicated in § 63.8186 of the final rule, mercury cell chlor-alkali plants will no longer have any obligation to comply with the Mercury NESHAP, nor will they be allowed to comply with the Mercury NESHAP instead of the applicable provisions in 40 CFR part 63, subpart IIIII. Specifically, affected sources

[1] This regulatory program was originally set forth at 38 FR 8826; April 6, 1973; and amended at 40 FR 48302, October 14, 1975; 47 FR 24704, June 8, 1982; 49 FR 35770, September 12, 1984; 50 FR 46294, November 7, 1985; 52 FR 8726, March 19, 1987; and 53 FR 36972, September 23, 1988.

subject to the final rule would no longer be subject to §§ 61.52(a), 61.53(b) and (c), and 61.55(b), (c) and (d) of 40 CFR part 61, subpart E, after the compliance date, which is December 19, 2006.

II. Summary of Changes Since Proposal

The proposed rule contained a compliance date 2 years from the date that the final rule would appear in the **Federal Register**. In the final rule, the compliance date has been changed to 3 years from December 19, 2006. However, unlike the proposed rule, which would have required that performance tests be conducted within 180 days after the compliance date, the final rule requires that all performance tests be conducted on or before the compliance date.

For mercury cell chlor-alkali production facilities affected sources, the proposed rule included a single emission limitation that covered all mercury emissions from the two point sources associated with chlorine production in mercury cells: the by-product hydrogen stream and the end box ventilation system vent. The format of this limitation was total grams of mercury per Megagram of chlorine production (g Hg/Mg Cl_2). For the initial compliance determination, the aggregate mercury emissions from all hydrogen by-product streams and all end box ventilation system vents were divided by the chlorine production for the same period and compared with the applicable emission limitation. Continuous compliance would have then been demonstrated by continuously monitoring the mercury concentration in each stream and comparing the daily average mercury concentration against a level determined during the initial compliance test. Commenters objected to this daily averaging period for compliance purposes when the emission limitations were based on annual average emissions and chlorine production. In response to these comments, we have written the averaging time for continuous compliance as a 52-week period. Further, as discussed more below, rather than establishing surrogate mercury concentration operating limits for each vent, continuous compliance is determined by a direct comparison of the emissions per unit of chlorine production (g Hg/Mg Cl_2) for each 52-week compliance period and the emission limitation. This is a rolling average compliance period that is determined each week. That means a compliance determination is required each week for the previous 52-week period.

In addition to the averaging time for the by-product hydrogen/end box ventilation system vent, we changed the value of the emission limitation for plants with end box ventilation systems from the proposed limit of 0.067 g Hg/Mg Cl_2 to 0.076 g Hg/Mg Cl_2. The proposed limit of 0.033 g Hg/Mg Cl_2 for plants without end box ventilation systems is retained in the final rule.

In the final rule, we have written the method for determining continuous compliance for the point sources of emissions in both types of affected sources covered by the rule (by-product hydrogen streams and end box ventilation system vents at mercury cell chlor-alkali production facilities and mercury thermal recovery unit vents at mercury recovery facilities). In the proposed rule, performance tests would have been required to determine initial compliance with the applicable emission limitation. The proposed rule also would have required that the mercury concentration of each vent be monitored during these performance tests, and that a mercury concentration operating limit be established for each vent based on the monitoring results obtained during the test. Compliance with the emission limitation would have then been determined by comparing the results of the continuous monitoring of mercury concentration against the established operating limits. There were several comments received on this approach.

In response to these comments, continuous compliance in the final rule is determined via a direct comparison of emissions to the emission limitation rather than using mercury concentration operating limits as a surrogate. For by-product hydrogen streams and end box ventilation system vents, the aggregate mercury emissions will be determined, divided by the corresponding chlorine production, and compared with the emission limitation for each 52-week compliance period (as discussed above). For mercury thermal recovery unit vents, the measured mercury concentration will be directly compared against the emission limitations (which are in units of milligrams of mercury per dry standard cubic meter, or mg/dscm). Also, the final rule contains two options for measuring the mercury emissions for continuous compliance: Continuous mercury emission monitoring systems, and periodic sampling using EPA reference methods or approved alternative methods.

The proposed work practice provisions included a cell room monitoring program, which would have required that the mercury concentration be monitored in the cell room and corrective action taken when a plant-specific action level was exceeded. The final rule retains the cell room monitoring program, but it is as an alternative to the work practices. The optional cell room monitoring provisions in the final rule are more detailed and prescriptive than the requirements in the proposed rule, and the final rule requires the preparation and submittal of site-specific cell room monitoring plans. Since the cell room monitoring program was made optional, the final rule requires (if optional cell room monitoring is not chosen) the owner or operator to institute a floor-level mercury vapor measurement program. This program is designed to limit the amount of mercury vapor in the cell room environment through periodic measurement of mercury vapor levels.

The final rule also requires that the owner of each mercury cell chlor-alkali plant report the mass of virgin mercury added to the cells. Initial compliance with this requirement is demonstrated by reporting the mass of mercury added to cells for the 5 years preceding the compliance date. This is a requirement requested by commenters.

III. Summary of the Final Rule

A. What Is the Source Category?

The chlorine production source category contains the mercury cell chlor-alkali plant subcategory and includes all plants engaged in the manufacture of chlorine and caustic in mercury cells. Other non-mercury cell chlorine production plants used to produce chlorine and caustic, such as diaphragm cell and membrane cell technologies, are not covered by the final rule.

B. What Are the Affected Sources and Emission Points To Be Regulated?

The final rule defines two affected sources: Mercury cell chlor-alkali production facilities, and mercury recovery facilities. The former includes all cell rooms and ancillary operations used in the manufacture of chlorine, caustic, and by-product hydrogen at a plant site. The latter includes all processes and associated operations needed for mercury recovery from wastes.

Emission points addressed within mercury cell chlor-alkali production facilities include each mercury cell by-product hydrogen stream, each mercury cell end box ventilation system vent, and fugitive emission sources throughout each cell room and various areas. Emission points addressed within mercury recovery facilities include each

mercury thermal recovery unit vent and fugitive emission sources associated with storage areas for mercury-containing wastes.

C. What Are the Emission Limitations?

For new or reconstructed mercury cell chlor-alkali production facilities, the final rule prohibits mercury emissions.

For existing mercury cell chlor-alkali production facilities with end box ventilation systems, the final rule requires that aggregate mercury emissions from all by-product hydrogen streams and end box ventilation system vents not exceed 0.076 g Hg/Mg Cl_2 for any consecutive 52-week period. For existing mercury cell chlor-alkali production facilities without end box ventilation systems, the final rule requires that mercury emissions from all by-product hydrogen streams not exceed 0.033 g Hg/Mg Cl_2 for any consecutive 52-week period.

For new, reconstructed, or existing mercury recovery facilities with oven type mercury thermal recovery units, the final rule requires that total mercury emissions not exceed 23 mg/dscm from each oven type unit vent. For new, reconstructed, or existing mercury recovery facilities with non-oven type mercury thermal recovery units, the limit in the final rule is 4 mg/dscm.

D. What Are the Work Practice Standards?

The final rule contains a set of work practice standards to address and mitigate fugitive mercury releases at mercury cell chlor-alkali plants. These provisions include specific equipment standards such as the requirement that end boxes either be closed (that is, equipped with fixed covers), or that end box headspaces be routed to a ventilation system. Other examples include requirements that piping in liquid mercury service have smooth interiors, that cell room floors be free of cracks and spalling (*i.e.*, fragmentation by chipping) and coated with a material that resists mercury absorption, and that containers used to store liquid mercury have tight-fitting lids. The work practice standards also include operational requirements. Examples of these include requirements to allow electrolyzers and decomposers to cool before opening, to keep liquid mercury in end boxes and mercury pumps covered by an aqueous liquid at a temperature below its boiling point at all times, to maintain end box access port stoppers in good sealing condition, and to rinse all parts removed from the decomposer for maintenance prior to transport to another work area.

A cornerstone of the work practice standards is the inspection program for equipment problems, leaking equipment, liquid mercury accumulations and spills, and cracks or spalling in floors and pillars and beams. Specifically, the final rule requires that visual inspections be conducted twice each day to detect equipment problems, such as end box access port stoppers not securely in place, liquid mercury in open containers not covered by an aqueous liquid, or leaking vent hoses. If a problem is found during an inspection, the owner or operator will need to take immediate action to correct the problem. Monthly inspections for cracking or spalling in cell room floors are also required as well as semiannual inspections for cracks and spalling on pillars and beams. Any cracks or spalling found will need to be corrected within 1 month.

Visual inspections for liquid mercury spills or accumulations are also required twice per day. If a liquid mercury spill or accumulation is identified during an inspection, the owner or operator will need to initiate cleanup of the liquid mercury within 1 hour of its detection. Acceptable cleanup methods include wet vacuum cleaning or a suitable alternative method approved upon petition.

In addition to cleanup, the final rule requires that an inspection of equipment in the area of the spill or accumulation be conducted to identify the source of the liquid mercury. If the source is found, the owner or operator is required to repair the leaking equipment as discussed below. If the source is not found, the owner or operator will be required to reinspect the area every 6 hours until the source is identified or until no additional liquid mercury is found at that location.

Inspections of specific equipment for liquid mercury leaks are required once per day. If leaking equipment is identified, the final rule requires that any dripping mercury be contained and covered by an aqueous liquid, and that a first attempt to repair leaking equipment be made within 1 hour of the time it is identified. The final rule requires that leaking equipment be repaired within 4 hours of the time it is identified, although there are provisions for delaying repair of leaking equipment for up to 48 hours.

Inspections for hydrogen gas leaks are required twice per day. For a hydrogen leak at any location upstream of a hydrogen header, a first attempt at repair is required within 1 hour of detection of the leaking equipment, and the leaking equipment is required to be repaired within 4 hours (with provisions for delay of repair if the leaking equipment is isolated). For a hydrogen leak downstream of the hydrogen header but upstream of the final control device, a first attempt at repair is required within 4 hours, and complete repair required within 24 hours (with delay provisions if the header is isolated).

The work practice standards in the final rule require you to institute a floor-level mercury vapor measurement program. Under this program, mercury vapor levels are periodically measured and compared to an action level of 0.05 mg/m^3. The final rule specifies the actions to be taken when the action level is exceeded. If the action level is exceeded during any floor-level mercury vapor measurement evaluation, you are required to take specific actions to identify and correct the problem.

As an alternative to the full set of work practice standards (including the floor-level monitoring program), the final rule also includes an optional requirement to institute a cell room monitoring program whereby owners and operators continuously monitor mercury concentrations in the upper portion of each cell room and take corrective actions as soon as practicable when elevated mercury vapor levels are detected.

The program is not designed to be a continuous monitoring system inasmuch as the results would be used only to determine relative changes in mercury vapor levels rather than compliance with a cell room emission or operating limit. The owner or operator is required to establish an action level for each cell room based on preliminary monitoring to determine normal baseline conditions. The action level, or levels if appropriate, will then be established as a yet-to-be-determined multiple of the baseline values. Once the action level(s) is established, continuous monitoring must be conducted. If an action level is exceeded, actions to correct the situation are required to be initiated as soon as possible. If the elevated mercury vapor level is due to a maintenance activity, the owner or operator must ensure that all work practices related to that maintenance activity are followed. If a maintenance activity is not the cause, inspections and other actions will be needed to identify and correct the cause of the elevated mercury vapor level. Owners and operators utilizing this cell room monitoring program option are required to develop site-specific cell room monitoring plans describing their monitoring system and quality assurance/quality control

procedures that will be used, along with their action level.

The final rule establishes the duty for owners and operators to routinely wash surfaces throughout the plant where liquid mercury could accumulate. Owners and operators are required to prepare and follow a written washdown plan detailing how and how often specific areas specified in the final rule are to be washed down to remove any accumulations of liquid mercury.

Finally, the final rule requires owners or operators to record and report the mass of virgin mercury added to cells. Virgin mercury is defined as mercury that has not been processed in an onsite mercury thermal recovery unit or otherwise recovered from mercury-containing wastes onsite. In order to establish a baseline of mercury being added to the cells, the final rule requires owners or operators to submit the mass of virgin mercury added to cells for the 5 years preceding the compliance date.

E. What Are the Operation and Maintenance Requirements?

The final rule requires that each owner and operator always operate and maintain each affected source, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing air emissions, as required under 40 CFR 63.6(e)(1)(i) of the NESHAP General Provisions. The final rule requires each owner and operator to prepare and implement a written startup, shutdown, and malfunction plan according to the operation and maintenance requirements in § 63.6(e)(3) of the NESHAP General Provisions.

F. What Are the General Compliance Requirements?

The final rule requires compliance with the emission limitations and applicable work practice requirements at all times, except during periods or startup, shutdown, and malfunction as defined in 40 CFR 63.2. The owner or operator must develop and implement a written startup, shutdown, and malfunction plan according to the requirements in 40 CFR 63.6(e)(3).

G. What Are the Initial Compliance Requirements?

The final rule requires compliance with emission limitations and work practices by December 19, 2006.

To demonstrate initial compliance with the emission limits for by-product hydrogen streams and end box ventilation system vents, the final rule requires each owner or operator to conduct performance tests using 40 CFR part 61, appendix A, Method 102 for by-product hydrogen streams, and 40 CFR part 61, appendix A, Method 101 or 101A for end box ventilation system vents. In addition, the final rule also includes procedures for reducing the mercury emissions data collected during the performance test to units of the standard (*i.e.*, g Hg/Mg Cl_2). Each performance test is required to consist of a minimum of three 2-hour runs with a minimum sample volume of 1.7 dscm and must be conducted in accordance with a site-specific test plan prepared according to the performance test quality assurance program requirements in § 63.7(c)(2) of the NESHAP General Provisions.

Concurrent with each test run, each owner or operator is required to determine the quantity of chlorine produced using an equation contained in the final rule which calculates chlorine production based on cell line electric current load.

Initial compliance is demonstrated by showing that the total mercury emission rate from all by-product hydrogen streams and all end box ventilation system vents for the test are less than 0.076 g Hg/Mg Cl_2 for plants with end box ventilation systems, or 0.033 g Hg/Mg Cl_2 for plants without end box ventilation systems.

In addition, if the final control device is not a nonregenerable carbon adsorber and continuous compliance will be demonstrated using the periodic monitoring option, the owner or operator is required to monitor the following parameters during the performance test to establish either a maximum or minimum monitoring value, as applicable for the control device:

- Exit gas temperature from uncontrolled streams;
- Outlet temperature of the gas stream for the final cooling system when no control devices other than coolers or demisters are used;
- The outlet temperature of the gas stream from the final cooling system when the cooling system is followed by a molecular sieve or regenerative carbon adsorber;
- Outlet concentration of available chlorine, pH, liquid flow rate, and inlet gas temperature of chlorinated brine scrubbers and hypochlorite scrubbers;
- The liquid flow rate and exit gas temperature for water scrubbers;
- The inlet gas temperature of regenerative carbon adsorption systems; or
- The temperature during the heating phase of the regeneration cycle for regenerative carbon adsorbers or molecular sieves.

As part of the initial compliance demonstration, the owner or operator must determine the maximum or minimum monitoring value by calculating the average of the data collected during the performance test. The exception to this is when the final control device is a regenerative carbon adsorber. In this case, the highest temperature reading during the performance test must be used.

To demonstrate initial compliance with the mercury thermal recovery unit emission limits, the final rule requires that owners or operators conduct a performance test for each vent using 40 CFR part 61, appendix A, Method 101 or 101A. The owner or operator is required to develop and follow a site-specific test plan according to § 63.7(c)(2) of the NESHAP General Provisions. Three test runs would need to be conducted at a point after the last control device for each vent.

Initial compliance is achieved if the average vent mercury concentration is less than 23 mg/dscm for each oven type vent or 4 mg/dscm for each non-oven type vent. In addition, if the final control device is not a nonregenerable carbon adsorber and continuous compliance will be demonstrated using the periodic monitoring option, the owner or operator is required to monitor the same parameters as required for by-product hydrogen streams and end box ventilation system vents and to establish the appropriate minimum or maximum monitoring value for the control device.

H. What Are the Continuous Compliance Requirements?

The final rule contains two options for continuous compliance with the emission limit for by-product hydrogen streams and end box ventilation system vents and the emission limit for mercury thermal recovery unit vents: Continuous monitoring using mercury continuous emissions monitors, or periodic monitoring using testing. Both of these options will produce results in the units of the standard, so continuous compliance will be demonstrated through a direct comparison of monitoring system results.

If mercury continuous emission monitors are used to comply with the final rule, a site-specific monitoring plan must be developed to ensure proper control device evaluation, and a performance evaluation is required according to the monitoring plan. For each monitor, the final rule requires the site-specific monitoring plan to address installation and siting, monitor performance specifications,

performance evaluation procedures and calibration criteria, ongoing operation and maintenance procedures, ongoing data assurance procedures, and ongoing recordkeeping and reporting procedures. It must also address how other parameters (*e.g.*, flow rate) needed to calculate the mass of mercury emissions from each emission point are to be monitored. If periodic weekly monitoring is the selected compliance method, the owner or operator is required to conduct tests on a weekly basis using either an EPA Reference Method (101, 101A, or 102) or an alternative method that has been validated using Method 301, 40 CFR part 63, appendix A. If the final control device is not a nonregenerable carbon adsorber, in addition to periodic testing, the final rule contains requirements for the continuous monitoring of control device-specific parameters.

To demonstrate continuous compliance, the final rule requires the owner or operator to reduce mercury emissions to 52-week averages and to maintain the 52-week average below 0.076 g Hg/Mg Cl_2 for plants with end box ventilation systems, or 0.033 g Hg/Mg Cl_2 for plants without end box ventilation systems. For mercury thermal recovery units, the owner or operator is required to determine daily average mercury emissions and maintain the daily average below 23 mg/dscm for each oven type vent or 4 mg/dscm for each non-oven type vent. The final rule requires the owner or operator to collect emissions data using either a continuous mercury emissions monitor, or by collecting weekly samples using periodic monitoring. If the periodic monitoring option is used and the final control device is not a nonregenerable carbon adsorber, the owner or operator is required to also monitor specific control device parameters and compare to the maximum or minimum monitoring values developed during the performance test. Continuous compliance is achieved if the monitoring values remain either below the maximum monitoring value, or above the minimum monitoring value, as appropriate.

I. How Are Initial and Continuous Compliance With the Work Practice Standards To Be Demonstrated?

The final rule requires compliance with the work practice standards within 3 years from December 19, 2003.

The final rule contains specific recordkeeping requirements related to the work practice standards. These include records of when inspections were conducted, problems identified, and actions taken to correct problems. Continuous compliance with work practice standards will be demonstrated by maintaining these required records.

Initial compliance with the washdown plan will be demonstrated by submission of the plan by the owner or operator and certification that they operate according to, or will operate according to, the plan. Continuous compliance with the plan will be demonstrated by maintaining related records. Records will also be required to demonstrate compliance with the cell room monitoring program.

J. What Are the Notification and Reporting Requirements?

The final rule requires that owners or operators submit Initial Notifications, Notifications of Intent to conduct a performance test, Notification of Compliance Status (NOCS), and compliance reports.

For the Initial Notification, we are requiring that each owner or operator notify us that their plant is subject to the NESHAP for mercury cell chlor-alkali plants, and that they provide other basic information about the plant. For existing sources, this notification would need to be submitted no later than April 19, 2004.

For the Notification of Intent report, we are requiring that each owner or operator notify us in writing of the intent to conduct a performance test at least 60 days before the performance test is scheduled to begin.

The NOCS for the work practice standards will be due 30 days after the compliance date for existing sources. In this notification, the owner or operator will need to certify that the work practice standards are being or will be met. Furthermore, we are requiring that the washdown plan be submitted as part of this notification, and that the owner or operator certify that they operate or will operate according to the plan.

For the emission limits where a performance test is required to demonstrate initial compliance (that is, the emission limits for by-product hydrogen streams and end box ventilation system vents and the mercury thermal recovery unit vent limits), the tests will have to be conducted no later than the compliance date, and the NOCS will be due 60 days after the completion of the performance test. The site-specific monitoring plan addressing the use of mercury continuous emission monitors for vents must be submitted as part of this notification.

Compliance reporting is required semiannually, with the first report due within the first 6 months after initial compliance.

K. What Are the Recordkeeping Requirements?

Records required by the final rule related to by-product hydrogen streams, end box ventilation system vents, and mercury thermal recovery unit vents include the following: Performance test results, records showing the establishment of the applicable mercury concentration operating limits (including records of the mercury concentration monitoring conducted during the performance tests), records of the continuous mercury concentration monitoring data, records of the daily average elemental mercury concentration values, and records associated with site-specific monitoring plans.

With regard to the work practice standards, the final rule requires that records be maintained to document when each required inspection was conducted and the results of each inspection. Records noting equipment problems (such as end box cover stoppers not securely in place or mercury in an open container not covered by an aqueous liquid) identified during a required inspection, and the corrective action taken would also be required. If equipment that is leaking mercury liquid or hydrogen/mercury vapor is identified during a required inspection or at any other time, the final rule requires records of when the leak was identified and when it was repaired. Similarly, if a mercury spill or accumulation is identified at any time, the final rule requires records of when the spill or accumulation was found and when it was cleaned up.

A copy of the current version of the washdown plan would need to be kept on-site and be available for inspection. Records of when washdowns were conducted would be required.

The final rule requires that copies of each notification and report that is submitted to comply with the final rule be kept and maintained for 5 years, the first 2 of which must be on-site.

IV. Summary of Major Comments and Responses

This section includes discussion of significant comments on the proposed rule. For a complete summary of all the comments received on the proposed rule and our responses to them, refer to the "Background Information Document for Promulgation of National Emissions Standards for Hazardous Air Pollutant (NESHAP): Mercury Emissions From Mercury Cell Chlor-Alkali Plants" EPA–453/R–03–012 (hereafter called the "response to comments document") in Docket OAR–2002–0017 or A–2000–32.

The docket also contains the actual comment letters and supporting documentation developed for the final rule.

A. What Issues Were Raised Regarding the Sources That Are Subject to the Rule as Proposed?

There were no issues raised by commenters regarding the sources subject to the proposed rule and the affected source, as a mercury cell chlor-alkali plant is a distinct and easily identifiable entity. There were, however, issues raised regarding the proposed requirement for all affected sources to obtain a title V permit and regarding the specific emission points that were addressed in the proposed rule.

Comment: Three commenters disagreed with the proposed requirements for all mercury cell chlor-alkali plants to obtain a title V permit, including area sources. The commenters requested that this provision be deleted from the final rule. The commenters stated that the facilities affected by the proposal are minor sources of HAP emissions. All three commenters maintained that requiring minor source facilities to obtain title V permits would be burdensome, *e.g.*, due to duplicative recordkeeping and reporting provisions, for the area sources; one commenter further stated that this burden would not yield any environmental benefit. Additionally, according to this commenter, dropping the title V permit requirement for area sources would not lessen any substantive requirements for monitoring, recordkeeping, or operation of any and all air pollution control devices. Commenters noted that the CAA allows EPA to exempt certain sources from obtaining a title V permit "* * * if the Administrator finds that compliance with such requirements is impracticable, infeasible, or unnecessarily burdensome * * *".

One commenter noted that in previously promulgated area source MACT standards (*e.g.*, Dry Cleaning MACT and Halogenated Solvent Cleaning MACT), EPA identified area sources as being subject to title V permitting. However, EPA allowed the permitting authorities to defer area sources from title V permitting requirements until December 9, 2004.

In contrast, another commenter supported the proposed requirement to require all affected sources to obtain title V permits. The commenter argued that title V permits are needed because they consolidate sources' applicable requirements in a single place. The commenter further noted that "* * * given the detailed work practice requirements, it is reasonable to expect significant source-specific tailoring of the standard for each plant's individual configuration." See, *e.g.*, 67 FR 44706–07. The commenter also stated that requiring title V permits of area sources of mercury is especially appropriate because a small quantity of mercury is as toxic as far greater amounts of other HAP.

Response: Section 502(a) of the CAA requires any source, including an area source, subject to standards or regulations under section 111 or 112 of the CAA to operate in compliance with a title V permit after the effective date of any title V permits program. The Administrator may not exempt any major source from the requirements of title V.

In order to exempt area sources under the final rule from title V requirements, the test in section 502(a) of the CAA must be met. Specifically, the Administrator must make a finding that title V requirements are impracticable, infeasible, or unnecessarily burdensome for the source category or categories in question. Commenters may provide data which would help the Administrator make such a finding, but the commenters who were opposed to area sources being permitted under the final rule did not provide any such data. Commenters providing supporting data for their arguments is consistent with what the Agency stated in its final rule for the Municipal Solid Waste Landfills NESHAP in reference to the test in section 502(a) of the CAA (68 FR 2227, 2234, January 16, 2003).

In terms of the commenters' concern about title V adding duplicative recordkeeping and reporting requirements, the only potential duplicative requirement that we are aware of is in relation to deviation reporting under the semiannual compliance report required by § 63.8254 of the final rule and the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). However, this potential duplication was addressed by § 63.8254(d) in the proposed rule and this has been clarified in the final rule.

As to the deferral for area sources subject to the Dry Cleaning MACT and the Halogenated Solvent Cleaning MACT, the area sources subject to these MACT standards were deferred from title V permitting until December 9, 2004. See final deferral rulemaking (64 FR 69637, December 14, 1999). This deferral was granted in part because of the concern that area sources would not be able to obtain the technical and procedural assistance from permitting authorities needed to file timely and complete title V applications given that permitting authorities would be focused on the permitting of major sources. However, as the title V program is no longer in its initial stages and the initial permitting of existing major sources is nearing completion, we would not be justified in granting a deferral to area sources under the final rule for the same reason.

In terms of the commenter who supported the permitting of affected sources under the final rule, we agree that the consolidation of requirements in a title V permit is one of the ways that title V helps assure compliance with all applicable requirements. As this commenter also pointed out, title V permits clarify which requirements in standards apply to a source where requirements may vary due to various factors, *e.g.*, design of the facility. Additionally, the title V regulations at 40 CFR part 70 and 40 CFR part 71 help a source assure compliance with its applicable requirements by requiring that a source self-certify to compliance initially and annually, by requiring that a source promptly report deviations from its permit requirements, and by requiring that a permit contain monitoring requirements. It is also important to note that the title V permitting process provides an opportunity for the public to comment on whether a source is complying with its applicable requirements. In short, title V permits can enhance the effectiveness of rules such as the final rule, and EPA, therefore, disagrees that there are no environmental benefits to requiring title V permits for area sources.

In conclusion, as the test in section 502(a) of the CAA has not been met, EPA has retained the requirement in the final rule that affected sources subject to the final rule must obtain title V permits. Therefore, whether an affected source under the final rule is a part of a major or area source, the major/area source is required to obtain a title V permit.

Comment: One commenter believed that the proposed rule violated the CAA because the Agency did not establish standards for some parts of chlor-alkali plants that emit mercury. The commenter noted that under the proposed rule, EPA defined two affected sources: Mercury cell chlor-alkali production facilities and mercury recovery facilities. The commenter did not agree with EPA's determination that within mercury cell chlor-alkali production facilities, chlorine purification, brine preparation and wastewater treatment operations should not be subject to emission standards

because they have low mercury air emissions. Similarly, the commenter did not agree with EPA's decision not to regulate chemical mercury recovery and recovery in batch purification stills at mercury recovery facilities. According to the commenter, the CAA does not allow the Agency to exempt certain classes, types and sizes of sources from emission standards, unless EPA finds no potential for emissions. Therefore, the commenter stated that EPA had a legal obligation to establish standards that cover all mercury-emitting parts of chlor-alkali facilities, and the Agency must re-visit and set emission standards for the parts of the production and recovery facilities with low mercury emissions.

Response: During development of the proposed rule, we did not receive any data to indicate that mercury was emitted from chlorine purification, brine preparation, or wastewater treatment operations, and our knowledge of the process indicated that any potential emissions would be very limited (67 FR 44674). Furthermore, we did not receive any data indicating that control measures designed to reduce HAP were in use at existing facilities that had these units. The same holds true for chemical mercury recovery and recovery in batch purification stills at mercury recovery facilities. Therefore, with no reported emissions and process evidence that any emissions would be very limited, we concluded that there was no potential for emissions. Adding to this the existence of a MACT floor of no control (because none are controlled), we did not regulate these processes.

The commenter did not provide emissions data that would indicate that these sources emit significant amounts of mercury, or emit mercury at all. Therefore, the final rule does not contain standards for mercury emissions from chlorine purification, brine preparation, wastewater treatment operations, chemical mercury recovery and recovery in batch purification stills.

We point out that the final rule does contain very stringent emission limitations for all point sources that have been demonstrated to be sources of mercury emissions. Further, the work practice requirements in the final rule address fugitive mercury emissions in all areas of the facility, including the chlorine purification, brine preparation, wastewater treatment areas, as well as areas where chemical mercury recovery processes and batch purification stills are located.

B. What Issues Were Raised Regarding the HAP Addressed by the Rule as Proposed?

As noted earlier, we divided the chlorine production category into two subcategories: Mercury cell chlor-alkali plants and chlorine production plants that do not rely upon mercury cells for chlorine production (diaphragm cell chlor-alkali plants, membrane cell chlor-alkali plants, etc.). On July 3, 2002, we issued separate proposals to address the emissions of mercury from the mercury cell chlor-alkali plant subcategory sources (67 FR 44672) and the emissions of chlorine and HCl from both the non-mercury cell chlorine production subcategory sources and the mercury cell chlor-alkali subcategory sources (67 FR 44713). Specifically, we proposed a rule for mercury emissions from mercury cell chlor-alkali plants, and we proposed not to regulate chlorine and HCl emissions from mercury cell chlor-alkali plants and non-mercury cell chlorine production plants under our authority in section 112(d)(4) of the CAA.

Comments were received regarding the proposed action not to regulate chlorine and HCl emissions (*see* Air Docket OAR–2002–0016 or Air Docket A–2002–09). The aspects of these comments related to the mercury cell chlor-alkali plant subcategory can be generally classified into two basic categories: Our statutory authority under section 112(d)(4); and the site-specific risk assessments that formed the basis for our decision.

Comments Related to the Section 112(d)(4) Authority

Comment: Several comments were received related to our decision not to regulate chlorine and HCl emissions from chlorine production under the authority of section 112(d)(4). Some commenters supported this decision and stated the interpretation of our authority under section 112(d)(4) was appropriate and supported by the legislative history. In contrast, other commenters disagreed with EPA's interpretation of section 112(d)(4). Finally, some of the commenters stated that EPA should use its authority under section 112(c)(9)(B)(ii).

One commenter stated that EPA conducted an appropriate analysis to determine that human exposures from ambient concentrations are well below threshold values with an ample margin of safety. According to another commenter, any further regulation of chlorine and HCl emissions from the chlorine production industry would have no environmental benefits, but would result in costs for monitoring, recordkeeping, and reporting efforts to certify compliance with any requirements. The commenter was concerned that a regulation would also stretch EPA's limited resources in monitoring for compliance. Three commenters stated that EPA's interpretation of their authority under section 112(d)(4) was supported by the legislative history, which emphasizes that Congress included section 112(d)(4) in the CAA to prevent unnecessary regulation of source categories. The commenter agreed that under section 112(d)(4), once EPA establishes that a pollutant has a health threshold and that exposure to that pollutant's emissions are below the health threshold, EPA should refrain from setting MACT standards for that pollutant. The commenter further suggested that EPA should use section 112(d)(4) whenever setting emission standards under section 112(d).

Three commenters disagreed with EPA's interpretation of section 112(d)(4). They did not believe that section 112(d)(4) could be used as an alternative to setting MACT standards under section 112(d)(3). One commenter noted that the phrase "in lieu of" was not included in the section 112(d)(4) provisions and that its absence was intentional. In support of their claim, the commenter pointed to section 112(d)(5), which does contain the phrase "in lieu of." The commenter interpreted section 112(d)(4) to mean that health-based thresholds can be considered when establishing the degree of MACT requirements, but not in place of the requirement to establish a MACT floor pursuant to section 112(d)(3).

The commenter also pointed to the provisions of section 112(c)(2) which require the Administrator to establish NESHAP for listed source categories and subcategories. The commenter was concerned that EPA evaluated emissions from chlorine production plants and concluded that since they do not pose a threat to human health and the environment, the Administrator is relieved of her responsibilities to establish a MACT standard. The commenter maintained that this position is not supported by section 112(c)(2).

The commenter also referred to section 112(d)(1), stating that EPA did not have the authority to "make a determination of no regulation for a listed source category or pollutant."

Finally, the commenter referred to section 112(d)(3), which contains the MACT floor provisions. According to the commenter, the intent of the NESHAP program is to develop a MACT

floor, and EPA is not fulfilling the requirements of the CAA by not performing such an analysis. The commenter stated that a majority of facilities identified in the analysis have adequate controls due to State regulations and these controls should be incorporated into the MACT floor evaluation. The commenter was particularly concerned that by not developing a MACT floor, no new-source MACT standards were created. The commenter requested that EPA perform a MACT floor analysis and develop a NESHAP for new sources.

Two of the commenters stated that EPA should support its decision not to regulate the chlorine production source category by citing the provisions of section 112(c)(9)(B)(ii) in addition to the provisions of section 112(d)(4). The commenters stated that the evaluation performed by EPA would also be sufficient for deleting sources under section 112(c)(9)(B)(ii) and that EPA's proposal to not regulate chlorine production is similar to deleting a subcategory of the Chlorine Production source category. Therefore, in addition to using the authority under section 112(d)(4), the commenters suggested that EPA delete the subcategory using the authority under section 112(c)(9)(B)(ii) to avoid any uncertainty over the use of its authority under section 112(d)(4).

Response: The EPA has the authority under CAA section 112(d)(4) to decide not to establish a NESHAP for chlorine and HCl emissions from certain chlorine production facilities. We have decided to limit our use of section 112(d)(4) to the emissions of chlorine and HCl from sources within the mercury cell chlor-alkali subcategory. While we have decided to establish no standards for the emissions of these two HAP from sources in the mercury cell chlor-alkali plant subcategory, we are establishing standards for the mercury emissions from the sources within that subcategory. As explained elsewhere in today's **Federal Register**, we have decided to delete the non-mercury cell chlorine production plants subcategory under CAA section 112(c)(9)(B)(ii). The only HAP emitted by the non-mercury cell chlorine production sources are chlorine and HCl.

Contrary to other commenters claims that our use of section 112(d)(4) is inappropriate, both the statutory language and the legislative history of the provision support our decision not to set limitations for chlorine and HCl emissions from sources in the mercury cell chlor-alkali plant subcategory. The language of section 112(d)(4) provides the Agency with ample discretion to utilize a risk-based approach in determining whether to establish emission standards for those HAP where we determine that the HAP are "threshold pollutants" and that the standard (or no standard) will achieve an "ample margin of safety."

The statutory language in section 112(d)(4) is ambiguous. Thus, under the Supreme Court's decision in *Chevron* v. *NRDC*, 467 U.S. 837 (1984), the Agency has the discretion to interpret the language to allow us to establish NESHAP that do set limitations on certain HAP emitted from sources ("when establishing standards") but to also decide not to set limitations on other HAP emitted from these same sources if the other HAP are threshold pollutants and the risk from the emissions are so low that no standard for that second set of HAP is necessary to protect the public and the environment with "an ample margin of safety."

This approach is consistent with prior decisions EPA has made in the context of two other NESHAP. First, in the NESHAP for combustion sources at pulp mills (40 CFR part 63, subpart MM), we chose not to set a standard for HCl emissions from recovery furnaces, while we did set standards for other HAP emitted from the same sources within the category. We explained this decision in the preamble to the proposed MACT standard and received no adverse comment on the approach (63 FR 18754, 18765–68, April 15, 1998). Second, we proposed to set no standard under section 112(d)(4) for HCl emitted from lime kilns, while we also proposed to set standards for other HAP emitted by these same sources (67 FR 78046 December 20, 2002). We also received no adverse comment on that proposed decision. While we originally proposed to utilize section 112(d)(4) to set no standard for chlorine and HCl from chlorine production sources in a separate notice of the **Federal Register** (67 FR 44713, July 3, 2002), we made it clear that the proposed use of section 112(d)(4) would apply to emissions of these two HAP from mercury cell chlor-alkali sources (as well as the emissions of chlorine and HCl from other chlorine production sources).

We do not agree that Congress' use of the phrase "in lieu of" in CAA section 112(d)(5) so clearly restricts any possible interpretation of CAA section 112(d)(4) such that some form of a MACT standard must always be set even when the criteria of section 112(d)(4) are met. Instead, we interpret that Congress enacted section 112(d)(4) to provide EPA with the discretion to take risk into account and decide that standards need not be set when the HAP are threshold pollutants and levels being emitted are below the threshold value with an ample margin of safety. Moreover, in each case where we have exercised authority under section 112(d)(4), we have established standards in each category (or subcategory, as here) for those pollutants that do not satisfy the threshold pollutant and ample margin of safety statutory criteria.

We also disagree with the commenter who argued that the provision in section 112(c)(2), which requires the Administrator to establish emission standards for listed categories and subcategories, has much bearing on our use of section 112(d)(4) in this circumstance. By setting a standard for the emission of mercury from the mercury cell chlor-alkali plant subcategory, we are fulfilling our obligations under section 112(c)(2). As stated earlier, we have utilized the same approach in our other uses of section 112(d)(4), *e.g.*, HCl emissions from combustion sources at pulp mills and lime production sources.

The statutory language in section 112(d)(1) and (3) does not prevent us from deciding that no emission standard is necessary for a particular threshold pollutant which is being emitted at levels well below the ample margin of safety when we are also establishing standards for HAP emitted from sources in that same category or subcategory. This approach to our use of section 112(d)(4) is consistent with the statutory language of section 112(d)(1) and (3). We are establishing emission standards for the listed category or subcategory, but are deciding that no MACT floor need be established and no emission standard set for those HAP that meet the criteria of "threshold pollutant" and "ample margin of safety."

With regard to the concerns the commenter raised about the failure to set a standard for new sources, our review of the mercury cell subcategory indicates that no new mercury cell chlor-alkali plants will be constructed. Given that our emission standard for new sources in the mercury cell chlor-alkali subcategory prohibits the emission of mercury, we do not believe any new sources using mercury cells for chlorine production will ever be constructed (or reconstructed). Therefore, this no-mercury emissions requirement in the final rule will, in effect, also ensure that there are no chlorine or HCl emissions from new mercury cell facilities.

In response to other commenters' suggestion that we utilize the authority of section 112(c)(9)(B)(ii) to delete the chlorine production category, we have

decided to exercise our authority under that statutory provision for the non-mercury cell chlorine production subcategory. That decision is discussed in a separate notice in today's **Federal Register.** However, we are not deleting the mercury cell chlor-alkali plant subcategory because the sources within the category also emit mercury, and we are establishing emissions standards for mercury emissions in today's final rule.

Comment: Some commenters concluded that we did not establish either cancer or noncancer thresholds for HCl and chlorine and, therefore, it is illegal for EPA to attempt to use section 112(d)(4) to set standards.

Response: The "threshold level" in section 112(d)(4) refers to the level of concentration of a chemical under which no health effects are expected from exposure, although this term is not defined in section 112. Further, section 112 does not address the process that must be followed to "establish" a threshold level.

The reference concentration (RfC) is a "long-term" threshold, defined as an estimate of a daily inhalation exposure that, over a lifetime, would not likely result in the occurrence of noncancer health effects in humans. We have determined that the RfC for HCl of 20 micrograms per cubic meter ($\mu g/m^3$) is an appropriate threshold value for assessing risk to humans associated with exposure to HCl through inhalation *http://www.epa.gov/iris/subst/0396.htm.*

In cases where we have not studied a chemical itself, we rely on the studies of other governmental agencies, such as the Agency for Toxic Substances and Disease Registry (ATSDR) or the Office of Health Hazard Assessment of California's Environmental Protection Agency (CAL EPA), for RfC values. The CAL EPA developed an RfC value of 0.2 $\mu g/m^3$ for chlorine based on a large inhalation study with rats.

Acute exposure guideline level (AEGL) toxicity values are estimates of adverse health effects due to a single exposure lasting 8 hours or less. The confidence in the AEGL (a qualitative rating of either low, medium, or high) is based on the number of studies available and the quality of the data. Consensus toxicity values for effects of acute exposures have been developed by several different organizations, and we are beginning to develop such values. A national advisory committee organized by EPA has developed AEGL's for priority chemicals for 30-minute, 1-hour, 4-hour, and 8-hour airborne exposures. They have also determined the levels of these chemicals at each exposure duration that will protect against discomfort (AEGL1), serious effects (AEGL2), and life-threatening effects or death (AEGL3). Hydrogen chloride has been assigned AEGL values (65 FR 39264, June 23, 2000), including the 1-hour, AEGL1 of 2,700 $\mu g/m^3$ used in our revised analysis. Chlorine has also been assigned AEGL values (62 FR 58840), including the 1-hour AEGL1 of 1,500 $\mu g/m^3$ used in our revised analysis.

We maintain that the listing of health thresholds by EPA and other organizations in the public domain as discussed above has "established" health thresholds for HCl and chlorine. Further, the recognition of these levels by EPA, ASTDR, and CAL EPA indicates that chlorine and HCl are threshold pollutants.

Moreover, we provided the public an opportunity to comment on the thresholds for chlorine and HCl that we used in our original analysis for the proposed action (67 FR 44716). We used the same threshold level for HCl for both the proposed and final NESHAP for the pulp and paper mill category. We have also used the same threshold for HCl in the proposed and final NESHAP for lime production (67 FR 78046; final action is anticipated in August 2003). There is no requirement in section 112(d)(4) that EPA develop or finalize a threshold for a particular HAP in a certain manner. The thresholds we have used for both HCl and chlorine are consistent with the statutory language in section 112(d)(4).

Comments Related to the Risk Assessment

Comment: In the analysis for the proposed action (67 FR 44713), we used the HCl RfC to determine the long-term health effects of chlorine emissions, since chlorine photolyzes very quickly to HCl in sunlight. Two comments supported this methodology and stated that our decision was based on sound scientific knowledge of the pollutants of concern.

In contrast, two other commenters did not agree with our use of the HCl RfC as a threshold level for chlorine. The commenters stated that not all of the annual chlorine emissions can be considered as HCl and, therefore, the chlorine exposure was underestimated. The commenters argued that chlorine emissions will not undergo photolysis to convert to HCl when there is not bright sunshine (*i.e.*, at night or on cloudy days).

Response: The widely accepted fact that chlorine is photolyzed in sunlight formed the basis for the assumption in the original risk assessment that chronic exposure to chlorine would not occur. As a result of this comment, we re-examined the literature on the atmospheric fate of chlorine to validate our original assumption.

The additional information obtained from the literature confirmed our earlier information. There are several different pathways that molecular chlorine can take, including photolysis (reaction with light), reactions with hydroxyl radicals, reactions with oxygen atoms, and reactions with water vapor. Each pathway results in different amounts of Cl_2 being removed from the troposphere, and different pathways are predominant at different times of the day. However, photolysis is the primary pathway.

Therefore, this information did not fundamentally change the assumption made in the original risk assessment, which was that on a long-term basis, individuals will be exposed more to HCl formed from the photolysis of chlorine than to chlorine. However, the commenters are correct that there will be situations where individuals will be exposed to chlorine. Therefore, in addition to the assessment where we considered only acute exposure to chlorine, we concluded that it was appropriate to consider the effects of chronic exposure to chlorine emissions from chlor-alkali plants. In order to provide an upper bound estimate of the chronic risks to compare with the lower bound estimates assuming that all chlorine was converted to HCl, we conducted modeling assuming that no chlorine is photolyzed.

In general, we consider an exposure concentration which is below the RfC concentration (what we call a hazard quotient of less than 1) to be "safe." This is based on the definition of RfC. The RfC is a peer reviewed value defined as an estimate (with uncertainty spanning perhaps an order of magnitude) of a daily inhalation exposure to the human population (including sensitive subgroups) that is likely to be without appreciable risk of deleterious noncancer effects during a lifetime (*i.e.*, 70 years).

As discussed above, we conducted additional modeling for major source facilities within the subcategory using the same model used for the proposed action (ISCST3) to estimate chronic chlorine exposure using the assumption that no chlorine is photolyzed to HCl. The hazard quotients resulting from this additional modeling defined the upper bound of our risk assessment. The highest upper-bound hazard quotient estimated by the model is just over 0.3. (For more details regarding this revised risk assessment, refer to table 2 of the responses to comment document, available in the docket.) Given the health protective assumptions used in

this analysis, the value of 0.3 represents a hypothetical exposure that is well above what we would expect actual exposures to be. This is because chlorine is converted to HCl in the presence of sunlight within a few minutes. In addition, the hazard quotient of 0.3, which results from this exposure scenario is well below the safe value of 1. Thus, we have concluded that, even assuming that some chronic exposure to chlorine may occur, that none of the major sources included in this subcategory will have emissions of chlorine or HCl that exceed a level of exposure which is adequate to protect public health and the environment with an ample margin of safety.

Comment: Two commenters did not support EPA's use of the AEGL2 for use as a short-term exposure limit for chlorine and HCl. One commenter stated that the AEGL2 values would not sufficiently protect public health because they would allow emissions at levels that cause "discomfort," and according to the commenter, discomfort is an adverse health effect. The commenter also complained that EPA did not explain why it chose to use AEGL2 rather than AEGL1 or AEGL3. The commenter explained that although emissions from chlorine plants did not exceed AEGL2 values, the emissions may exceed AEGL1 values, and if they did, the proposed action would not meet the statutory requirements. Another commenter stated that AEGL limits are not appropriate for assessing daily human exposure scenarios because they were developed for emergency planning. The commenter recommended that EPA use the American Conference of Governmental Industrial Hygienists (ACGIH), which has a 1-hour Short Term Exposure Limit (STEL) similar to the AEGL1 value of 1 part per million (ppm) for chlorine and is used to protect against eye and mucous membrane irritation. The commenter stressed that EPA must use conservative benchmarks before concluding that an ample margin of safety exists.

Response: The AEGL values represent short-term threshold or ceiling exposure values intended for the protection of the general public, including susceptible or sensitive individuals, but not hypersusceptible or hypersensitive individuals. The AEGL values represent biological reference values for this defined human population and consist of three biological endpoints for each of four different exposure periods of 30 minutes, 1 hour, 4 hours, and 8 hrs.

As utilized in the proposed action, the AEGL2 1-hour concentrations for chlorine and HCl are 5,800 $\mu g/m^3$ and 33,000 $\mu g/m^3$, respectively.

The 1-hour AEGL1 concentration for chlorine is 2,900 $\mu g/m^3$ and the corresponding value for HCl is 2,700 $\mu g/m^3$. The ACGIH short term exposure limit (STEL) for chlorine, which is 1 ppm is approximately equal to the AEGL1 value of 2,900 $\mu g/m^3$.

Although we stand by our original analysis, which used the AEGL2 level, we have incorporated the commentor's suggested use of the AEGL1 values (possibly with a safety factor) for determining whether an ample margin of safety has been obtained. Therefore, we simply compared the short term (1-hour average) modeling results from the original acute risk assessment to the AEGL1 values. These results were obtained by modeling the maximum allowable hourly emissions reported in the section 114 responses for each of the sources. For plants that did not report fugitive emissions, fugitive emissions were estimated using worst-case emission factors.

The maximum modeled 1-hour chlorine concentration for two of the three plants with the mercury cell chlor-alkali process is less than 5 percent of the AEGL1 (and ACGIH) value for chlorine. Further, the highest modeled concentration for any plant, 155 $\mu g/m^3$, is less than 6 percent of the AEGL1 values. The highest modeled 1-hour HCl concentration for any plant, 32 $\mu g/m^3$, is less than 2 percent of the AEGL1 value for HCl. Furthermore, all of the mercury cell chlor-alkali facilities also produce chlorine using a non-mercury chlorine production process (*i.e.*, diaphragm cells). The modeled emissions represent chlorine and HCl emissions from both processes. Therefore, the chlorine and HCl emissions from the mercury cell chlor-alkali process would be even lower.

Based on this comparison, we conclude that the chlorine and HCl emissions from mercury cell chlor-alkali production plants do not represent an unsafe level of acute exposure. We further maintain that, along with the chlorine exposure assessment, this proves that an ample margin of safety is provided with no additional control.

Comment: Two commenters supported EPA's method of selecting a risk assessment approach to meet the unique needs of the chlorine production industry. The commenters agreed that the risk assessment methodology should not be interpreted as a standardized approach that would set a precedent for how EPA will apply CAA section 112(d)(4) in future cases. Furthermore, the commenters stated that the degree of conservatism built into all aspects of the risk assessment conducted for the chlorine production source category could vary greatly in future risk assessments for other source categories. The commenters stressed that the conservative assumptions made in the health effects assessment, emissions estimates, and exposure assessment were appropriate for the proposed action.

In contrast, one commenter stated that the risk assessment fell short of the Agency's prior practice. According to the commenter, whenever EPA has made determinations to regulate a specific pollutant based on health considerations (*e.g.*, national ambient air quality standards (NAAQS) for ozone and PM), the Agency evaluated health effects and exposure in great detail. The commenter contended that in this case, EPA appears to be content with "the bare and unsupported assumptions about what health levels are safe." The commenter argued that it was not appropriate for EPA to use a rigorous approach when setting standards and a more cursory approach when making a decision not to regulate.

Response: We disagree with the one commenter's characterization of the assessment that forms the basis for this decision, and we strongly dispute the characterization of the assessment as "bare and unsupported." As discussed elsewhere in this preamble, we maintain that the RfC and AEGL values used as benchmarks for this assessment are scientifically sound and appropriate. The emissions data and other inputs used for this analysis, which were provided by the industry and checked by our staff, are representative of the industry.

In this assessment, the predicted health effects estimated, using very conservative inputs and assumptions, were well below the recognized health thresholds. While our approach in this particular action may not be the same as an approach for a NAAQS, we believe that it has been certainly more than "cursory." We have looked at emissions and exposure data for each of the major sources in the subcategory. We have established hazard indices for chlorine and HCl for each major source in the subcategory. We performed a qualitative ecological assessment. Moreover, in response to comment received, we have revised our analyses and taken into account comments that we have received when performing these reassessments. We will base each risk assessment for this and future regulatory action on sound scientific principles.

Comment: In the proposed action, the risk assessment modeling was conducted by placing receptors at the

geographic center of census blocks within 2 kilometers of the site and in the population-weighted centers of census block groups or census tracks out to 50 kilometers. Two commenters did not agree with this methodology for determining receptor location for threshold pollutants. One commenter stated that EPA's methodology would be more appropriate for cancer causing agent, where the risk is based on probabilities of health effects. The commenter argued that for noncancer (*i.e.*, threshold pollutants) compounds, placing the receptors at the center of census tracks would not properly identify the highest impacts close to the facility. They felt that it was more appropriate to measure the exposure of the most exposed individual (*e.g.*, someone living at the fence line of a facility or directly downwind).

Response: We certainly agree with the commenters that the greatest impacts will likely occur near the facility for this source subcategory. However, we do not agree with the commenters that our approach fails to meet statutory requirements. We do not feel that considering an "ample margin of safety" means that we must demonstrate no risk or adverse health effects for a theoretical person living at the fence line. Rather, it is appropriate to assess the risks at locations where people most likely reside. A census block is the smallest geographic unit for which the Census Bureau tabulates 100 percent data. While census blocks in rural areas may be larger, many blocks correspond to individual city blocks in more populated areas. The commenter is correct in that an individual could live closer to the plant than the center of the census block and our approach would have slightly underestimated risk. It is just as likely, however, that the closest individual could live farther from the plant than the center of the census block causing our risk estimates to be slightly overestimated. By placing receptors at the center of populated census blocks on all sides of a facility, we have evaluated people living "downwind." In conclusion, we continue to feel that placing a receptor in the geographic center of populated census blocks near a facility is a well established approach to exposure modeling which results in a reasonable approximation of estimating the risks where people actually live, and we maintain that this methodology is appropriate for actions taken under the authority of section 112(d)(4).

Comment: One commenter stated that all chlorine emissions from chlorine production facilities that are collocated with other source categories need to be reviewed as a whole when evaluating public health risk, adverse environmental effects, and possible control strategies. The commenter stressed that other sources of chlorine and HCl should be included in the risk assessment under section 112(d)(4). The commenter was concerned that not accounting for all chlorine and HCl emissions from a facility would provide the community with a false sense of assurance of protection and is not consistent with the legislative intent of the CAA to consider cumulative HAP exposure issues through an integrated approach under section 112(d), 112(f), and 112(k). Therefore, the commenter requested that EPA evaluate the potential for adverse health and environmental impacts using conservative risk assessment methodology that incorporates all known chlorine and HCl emissions from a contiguous facility.

Response: Section 112 of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. In directing us how to establish MACT emission limits, section 112(d)(3) of the CAA requires us to set the emission limitation at a level that assures that all major sources achieve the level of control at least as stringent as that already achieved by the better-controlled and lower-emitting sources in each source category or subcategory. Therefore, the entire MACT program is structured on a source category-specific basis. All MACT standards developed to date have addressed emissions from specific source categories.

There are instances where mercury cell chlor-alkali facilities are collocated with other source categories. However, based on the risk assessment for chlorine and HCl emissions from mercury cell chlor-alkali plants, the predicted impacts from chlorine and HCl at these plants are extremely low. We believe that the human health and environmental impacts from all sources in the subcategory even when collocated with other chlorine and HCl emissions will still be within an ample margin of safety to protect the public health, and will not cause adverse environmental effects. Moreover, as indicated in the preamble to the proposed action, most major processes at the sites where mercury cell chlor-alkali facilities are located are subject to, or will be subject to, NESHAP to reduce HAP emissions (67 FR 44714, July 3, 2002). Therefore, it would be inappropriate to include emissions from those sources in an assessment for the mercury cell chlor-alkali subcategory conducted under the authority of section 112(d)(4).

Comment: Two commenters stated that the environmental effects analysis was not adequate. One commenter stated that potential ecological effects of HCl emissions have not been properly referenced. One commenter stated that EPA's proposed action falls short of its obligation to protect against environmental effects. According to the commenter, EPA has understated its statutory obligation in the proposed action. The commenter referred to the legislative history, which indicates that CAA section 112(d)(4) requires standards that "would not result in adverse environmental effects which would otherwise be reduced or eliminated." The commenter listed the several shortcomings in the EPA's environmental assessment.

The commenter concluded that although EPA acknowledged that it had an obligation to ensure that any standards set under section 112(d)(4) did not have any adverse environmental effects, the Agency did not properly consider the issue. Therefore, the commenter stated that EPA could not promulgate standards under section 112(d)(4) without contravening the CAA.

Response: While CAA section 112(d)(4) makes no mention of environmental effects, we took the potential of such adverse effects into account when we issued our proposed action. The level of our analysis at proposal was adequate to satisfy the requirements of section 112(d)(4). The commenters did not suggest that they believed there was the potential for adverse environmental effects from HCl or chlorine emissions from mercury cell chlor-alkali plants. Were there any evidence that such adverse effects were likely, or even possible, we would have conducted a more intensive ecological risk assessment.

The commenters are correct, however, that we did not discuss the ecological effects of chlorine. This was because, as was stated in the proposal preamble, we did not perform a separate evaluation of chronic chlorine exposure because chlorine is converted to HCl in the atmosphere so rapidly.

Atmospheric exposure is the primary pathway for environmental effects from chlorine emissions. However, since most chlorine is converted to HCl, studies have focused on the effects of HCl on vegetation. Although plant exposures to elevated levels of chlorine can cause plant injury, it tends to be converted to other, less toxic forms rather rapidly in plants and may not result in the direct accumulation of

toxic pollutant residuals important in the food chain.

Plant studies have found foliar damage due to chlorine emissions, decreased levels of chlorphyll a and b, decreased leaf areas, obvious chlorosis, and a decline in fruit production due to chlorine emissions.

There is evidence of effects to animals due to accidental and/or catastophic exposures, but the chlorine concentrations of these exposures are unknown. However, there are no data on exposure to historic or atmospheric concentrations.

More information is available on the effects of chlorine from aquatic exposures. However, there is no evidence that suggests that emissions of chlorine from industrial sources in the air contribute significantly to aquatic concentrations of chlorine.

One study reported a significant decrease in phytoplankton activity following exposure to 0.1 ppm chlorine in cooling tower water. Additional laboratory studies showed that continuous exposure to 0.002 milligrams per liter (mg/L) total residual chlorine (TRC) resulted in depressed algal biomass in naturally-derived microcosms.

When exposed continuously for 96 hours to 0.05 mg/L TRC, the Eurasian water milfoil showed a significant reduction in shoot and dry weights, shoot length, and chlorophyll content.

Aquatic invertebrates are very sensitive to chlorine and reaction products of chlorine, with early life stages showing the most sensitivity. For example, free chlorine, monochloramine, and dichloroamine have been shown to reduce the rate of oyster larvae survival. Many studies have been performed, and the results are highly variable depending on the chlorine species, the lifestage of the invertebrate, and other factors such as salinity. The most sensitive aquatic species appears to be molluscan larvae, with lethal concentration 50% (LC_{50}) of 0.005 mg/L. Sublethal effects have also been studied, including reduced growth, reduced motility, and reproductive failure.

The effects on fish also vary depending on the life stage and fish species and environmental factors, such as the pH, temperature, and type of chlorine species. Larval stages are more susceptible to effects, and freshwater species are more sensitive than marine species. Free chlorine is generally more toxic than residual chlorine; where the form of chlorine is dependent on the pH of the water. Sublethal effects such as avoidance, reduction of diversity in chlorinated effluents, reduction or elimination of spawning, abnormal larvae, reduced oxygen consumption, and gill damage have been noted. Many LC_{50} values were reported, ranging from 0.08 mg/L after 24 hours of exposure to TRC to 2.4 mg/L after 0.5 hours of exposure to TRC.

Acute and chronic exposures to predicted chlorine and HCl concentrations around the sources are not expected to result in adverse toxicity effects. These pollutants are not persistent in the environment. The chlorine and HCl emitted should not significantly contribute to aquatic chlorine concentrations and are not likely to accumulate in the soil. Chlorine rapidly converts to HCl in the atmosphere, and chlorine and HCl are not believed to result in biomagnification or bioaccumulation in the environment. Therefore, we do not feel there will be adverse ecological effects due to chlorine and HCl emissions from mercury cell chlor-alkali plants.

C. What Issues Were Raised Regarding the Compliance Date?

Comment: Commenters requested an extension of the compliance date, which was proposed to be 2 years from the effective date of the final rule. The commenters recommended that the compliance date should be changed to 3 years after promulgation. The commenters stated that affected facilities are being required to install costly, complex control and monitoring equipment, as well as establish additional operating and maintenance procedures at their facilities in order to ensure compliance with the emission limitations and work practice requirements of the proposed rule. The commenters believed that 2 years was not a sufficient period of time to complete such tasks, specifically the continuous monitoring requirements.

Response: We agree that since the existing sources are required to install complex monitoring equipment and to establish additional operating and maintenance procedures, it is reasonable to allow more time than the proposed 2-year compliance period. Section 63.6(c)(1) of the NESHAP General Provisions states that "* * * in no case will the compliance date * * * exceed 3 years after the effective date of * * *." Therefore, the final rule specifies that the compliance date for existing sources is 3 years after the effective date of the final rule.

D. What Issues Were Raised Regarding the Emission Limitations?

Comment: One commenter, which submitted comments after the close of the comment period, recommended that EPA re-define MACT to ban the use of mercury cell technology. The commenter explained that this would be easily achievable because the majority of the chlorine production industry already uses other, superior technologies such as membrane cells and diaphragm cells. The commenter claimed that EPA abused its authority to establish subcategories of emission sources by creating a subcategory of "mercury cell chlor-alkali plants" within the chlorine production source category which limits the pool of facilities upon which the MACT floor is based to those who create dangerous pollution, as opposed to those industry leaders that use non-polluting and readily available equipment.

The commenter further listed a lack of confidence that the mercury cell process could be adequately controlled. The commenter explained that the work practice requirements which are proposed to address fugitive emissions, the largest source of emissions from this process, are too weak.

Finally, the commenter stated that converting all mercury cell plants to membrane cells would still be cost-effective, and that their estimate of the cost to convert all mercury cell plants to other technologies ($920 million) was justifiable given the significant threat to public health and the environment posed by mercury.

Response: We disagree with the commenter that we abused our authority to create subcategories by subcategorizing the chlorine production industry and only including mercury cell plants in the MACT floor analysis. It is our general policy to subcategorize when there are technical distinctions among classes, types, or sizes of sources, and manufacturing processes of sources, that would impact setting an appropriate emission limit even when creating the subcategories leads to some with a small number of sources. This policy is supported by the broad discretion provided to the Agency to establish subcategories under CAA section 112(c), the legislative history, and EPA's prior rulemakings.

In general, EPA has previously taken the position that subcategorization is appropriate where types of emissions and/or types of operation make use of the same air pollution control technology infeasible. The EPA's rulemakings reflect this general understanding and provide criteria for subcategorization that focus on the appropriateness of applying similar technology-based requirements at different sources.

The EPA feels that the subcategorization scheme it has used for this category of sources (as described above and in the proposed rule) is consistent with the statute, the legislative history, and EPA's past implementation of section 112(c) and the MACT program. The HAP emitted by the two subcategories (mercury cell chlor-alkali plants and non-mercury cell chlorine production) plants are different—while plants in both categories emit chlorine and HCl, only plants in the mercury cell subcategory emit mercury. The processes used to produce chlorine that the plants in the two subcategories used are generally different (because of the use of the mercury cells). Thus, no change was made in response to this comment and the final rule does not ban mercury cells (except the final rule does prohibit the emission of mercury from new or reconstructed chlor-alkali production facility sources).

With regard to the cost effectiveness of a ban of mercury cell chlor-alkali facilities, the commenter did not provide any basis for their estimate so we could not verify these costs. Further, we do not feel that "conversion" accurately describes the replacement of a mercury cell plant to another technology. There is little salvageable from a mercury cell plant that can be used in the construction of a membrane cell plant, so the demolition of the mercury cell plant followed by the construction of a membrane cell plant is a more accurate characterization.

Therefore, we did not promulgate a final rule that requires non-mercury technology for chlorine production.

Comment: Two commenters did not agree with the proposed "beyond-the-floor" emission limitations. They stated that there is no justification for EPA to set emission limits beyond the floor, as proposed. The commenters stressed that EPA is required to assess the cost-benefit relationship when considering "beyond the MACT floor" limitations. According to the commenters, the Agency did not set forth an accurate basis for costs associated with meeting the MACT floor or cost/benefits associated with meeting the "beyond the MACT floor" emission limitations.

These commenters were also concerned that the very low emission limits required by EPA's beyond-the-floor determination cannot be obtained by the industry as a whole. Specifically, the commenters stated that the Agency lacks high quality point source emission data upon which to base their "beyond-the-floor" limits. The commenters pointed out that the mercury emission limitations for hydrogen vent gas streams are based on limited data provided by a single facility in Maine that has been closed for nearly 2 years. The commenters maintained that for all of the eleven plants combined (ten affected plants plus the closed Maine plant), there was very little high quality point source emission data. Due to the significant chance that the data used to develop the standard are biased and quantitatively non-representative, the commenters stated that the Agency was not justified in moving beyond the floor to the most stringent value ever obtained by the industry.

The commenters further argued that EPA's conclusion that the "beyond-the-floor" emission limitations can be met with existing, commercially available control equipment is not supported and thereby seriously flawed. The commenters pointed out that EPA presented no data in the preamble or elsewhere in support of their decision that the proposed standards could be met with commercially available control systems.

Response: First, we disagree with the commenters' assertions that we did not have justification for going beyond the floor, and that we did not have an accurate basis for costs associated with meeting the MACT floor or meeting beyond-the-floor emission limitations. We conducted a very detailed plant-specific cost impacts analysis which is available in the docket. The commenters did not provide any specific comments on this detailed analysis or any specific data or rationale to refute our cost analysis. Therefore, we stand by our original analysis and have not made any changes to the cost impacts approach. Based on our analysis, we concluded that the costs/benefits of going beyond the floor are warranted. Given the persistent nature of mercury in the environment and its associated health and welfare impacts, we continue to feel that the additional emission reductions that will be achieved by the beyond-the-floor option are warranted considering the associated costs.

However, in the proposal preamble (67 FR 44682), we acknowledged that there was uncertainty associated with the level of control associated with the beyond-the-floor option proposed because the molecular sieve adsorption control technology is no longer commercially available, and because the plant representing this level of control is no longer operating. We did not receive any comments indicating that the molecular sieve control technology is commercially available. Further, since the plant has closed, we were unable to obtain additional information to further scrutinize the data to ensure that they were not biased and quantitatively non-representative. Therefore, we have concluded that we cannot fully demonstrate that the proposed beyond-the-floor standard is achievable using commercially available technology.

In the proposal preamble, however, we also stated that we were retaining the option of setting the standard at the next lowest normalized emission value of 0.076g Hg/Mg Cl_2 for plants with end box ventilation systems. The plant with this emissions level controls its by-product hydrogen system with a series of iodine and potassium iodide impregnated carbon adsorbers, and their end box ventilation system vent with a condenser and demister, which are commercially available technologies. Further, in the documentation for the proposed standard, we determined on a plant-specific basis which commercially available technologies could be made to comply with the proposed standard. The commenters provided no comment on why the application of the very specific application of these technologies could not achieve the emission limitations.

The emissions estimates for the facility with normalized emissions of 0.076 g Hg/Mg Cl_2 are based on weekly testing using methods that are modifications of EPA Methods 101A and 102. The primary difference between the methods used by the facility and the EPA Reference Methods is that the sampling is not isokinetic. We discussed our opinion that data obtained using this type of modified method were acceptable to use in MACT standards in the proposal BID. Therefore, it can be considered that the emission estimates used to establish the level of 0.076 grams Hg/Mg Cl_2 are based on weekly performance tests. We do not consider such data to be of low quality. Therefore for the final rule, we have selected the 0.076 grams Hg/Mg Cl_2 beyond-the-floor option as MACT for plants with end box ventilation systems.

For the by-product hydrogen stream for plants without end box ventilation systems and mercury thermal recovery unit vents, there were no questions raised regarding the availability of the control techniques used at the lowest emitting plants that formed the basis for the proposed emission limitations. Further, at proposal, we examined the data used to establish the emission limitations and determined that they were of adequate quality to be used to establish standards. Therefore, the final rule retains the proposed emission limitations for these emission sources.

Comment: Commenters were concerned that the proposed mercury

emission limitation for by-product hydrogen had a daily averaging period for continuous compliance. According to the commenters, the Agency developed the proposed standard using annual average emissions and actual annual production and then interpolated to a daily limit without regard to statistical error. Therefore, the commenters requested either an annual average emission rate limit or that the daily limit be set at not less than two times the annual limit divided by 365 (days).

Response: The commenters are correct in that the normalized mercury emissions used to establish the standards were based on annual average emissions and annual actual chlorine production. Therefore, the commenters' concerns about the variability of the control systems over a year and the ability to comply on a daily basis with this limit have merit. We considered the two options offered by the commenters (a 365-day compliance period and adjustments to account for daily variations).

We do not feel that it would be appropriate to apply a generic multiplier to the limit for mercury cell chlor-alkali plants to account for short-term variation. In addition, mercury cell emissions data were not available to assess the variability in emissions from these emission points. Therefore, we concluded that the emission limitation should reflect an annual average. This would be consistent with the data used to create the emission limitation and would allow for short-term variations in operations and control device performance.

The final rule is allowing weekly monitoring/testing as an alternative method to determine continuous compliance with the emission limitations. In order to be consistent with the continuous compliance approach, we concluded that the by-product hydrogen/end box ventilation emission limitation in the final rule should be annualized on a 52-week rolling basis. Specifically, the final rule requires that mercury emissions from all by-product hydrogen streams and end box ventilation system vents not exceed 0.076 grams Hg/Mg Cl_2 for any consecutive 52-week period.

E. What Issues Were Raised Regarding the Work Practices?

Comment: One commenter recommended that EPA establish numerical standards for fugitive emissions. The commenter maintained that, absent published information on good mass balance analyses performed at chlor-alkali facilities, one can only assume that significant mercury losses are occurring through fugitive emissions. Accordingly, the commenter felt it is crucial that the EPA step up efforts to address all potential release routes from such facilities, including fugitive emissions.

Another commenter, which submitted comments after the close of the comment period, expressed the view that the mercury consumed cannot be accounted for in material balances. This commenter asserted that the proposed rule failed to address the majority of the true annual mercury emissions from the mercury cell chlor-alkali industry. The commenter explained that the mercury used in this industry is not incorporated into final products or consumed in the process, so all mercury purchased is used to replenish mercury that has been lost from the manufacturing process. The commenter compared the amount of mercury purchased by the industry in 1994 (136 tons) to EPA's estimate of annual emissions (22,200 pounds or 11.1 tons) and concluded that the proposed rule fails to account for nearly 90 percent of the true mercury emissions from this industry. The commenter drew this conclusion based on the assumption that most of the mercury would be released to the air rather than transferred off-site as solid waste or accumulated in on-site tanks and ponds. The commenter noted that EPA's estimate of annual emissions was based on outdated and inadequate estimates of fugitive emissions which were based on short-term measurements taken when fugitive emissions were non-representatively low.

One of these commenters, who submitted comments after the comment period, recommended that EPA require both monitoring of fugitive emissions from cell rooms and waste storage areas and establish a reduction goal for such emissions. According to the commenter, technologies are available to quantify airborne mercury concentrations continuously, and in combination with estimates of air flow rates, estimates of fugitive loss rates under selected conditions could be made and could serve as the basis for reduction targets.

Response: The issue of unaccounted for mercury has been the subject of intense scrutiny from other groups within EPA and the indusry. As part of the Great Lakes Binational Toxics Strategy, mercury cell chlorine producers annually report the total mercury consumption for the industry. From the baseline consumption of 160 tons per year (tpy) for the years 1990–1995, the industry reported an 81 percent reduction of mercury consumed in 2001 (30 tpy). One of the commenters characterized the 2001 consumption as an outlier, but the 79 tpy consumed in 2000 still represents a significant decrease from the baseline level.

Even with this decrease in consumption, significant mercury remains unaccounted for by the industry. The mercury releases reported to the air, water, and solid wastes in the 2000 Toxics Release Inventory (TRI) totaled around 14 tons. This leaves around 65 tons of consumed mercury that is not accounted for in the year 2000.

While it may appear to the commenters that the discrepancy in the mercury material balance is the result of fugitive emissions, there is little empirical evidence to support this conclusion. The commenters did not provide any emissions data to support their assertion. Furthermore, industry personnel claim that mercury which condenses and accumulates in pipes, tanks, and other plant equipment makes up a large component of the unaccounted for mercury. While the commenters completely discount this claim by the industry, it is relevant to consider the very high density of mercury. For instance, the 65 tons of unaccounted for mercury in 2000 averages just over 7 tons per plant. One gallon of mercury weighs around 113 pounds, meaning that around 124 gallons of mercury would be unaccounted for per plant. This is a very small percentage (less than 2 percent) of the amount of mercury typically on site at most facilities. However, the industry is also unable to fully substantiate their theory. Therefore, the fate of all the mercury consumed at mercury cell chlor-alkali plants remains somewhat of an enigma.

We agree that work practice standards should only be set when it is not feasible to prescribe or enforce an emission standard. Indeed, our reasons for establishing work practices instead of numerical limits are based on factors associated with the practicality and feasibility of setting a realistic limit against which compliance can be measured and enforced.

First, data are not available to establish a numerical emission standard for fugitive emissions. As stated in the proposal preamble (67 FR 44680), emissions data for fugitives from cell rooms and waste storage areas are very limited. Second, we do not agree with the commenter's implication that available measurement technologies could support enforcing a numerical emission standard for the following reasons:

- Mercury emission monitors have not been used to monitor fugitive

emissions at mercury chlor-alkali facilities for compliance demonstrations;
- The variability in the number of and location of exhaust vents at each facility affects the amount of air moved through the cell rooms and thus affects the mass emission rate of the fugitives; and
- The variability of the cell room roof configuration affects the feasibility of using the continuous emissions monitors at each facility.

Therefore, the establishment of numerical emission limitations for fugitive emissions from the cell room and other areas is "not feasible," as defined in CAA section 112(h)(2)(B). Thus, the final rule retains the work practice elements of the proposed rule.

However, in response to the concerns about unaccounted for mercury, we did add a provision in the final rule that requires each facility to record and report the mercury consumed each year. While there are no mercury consumption reduction targets in the final rule, we believe that reporting mercury consumption on a plant-specific basis will encourage additional action to identify unaccounted for mercury and reduce mercury consumption.

Comment: A commenter that submitted comments well after the close of the comment period expressed the opinion that there was a fundamental flaw in the proposed rule because the proposal will weaken existing sources' obligations to limit mercury emissions from the cell room. They cited 42 U.S.C. § 7412(d)(7), which prohibits emission standards from weakening existing standards. This commenter summarized the 40 CFR part 61 mercury NESHAP, which requires mercury cell chlor-alkali plants to not emit more than 2,300 grams per day of mercury from the entire facility, including the cell room, the by-product hydrogen streams, the end box ventilation system vents, and other sources of mercury. The commenter stated that even if emissions from all other points were zero, emission from the cell room cannot exceed 2,300 grams per day. The commenter acknowledged that an owner or operator may forego cell room emission testing and assume that cell room emissions are 1,300 grams/day, but pointed out that complying with these work practices does not absolve the owner or operator of the obligation to meet the applicable numeric emission standard.

The commenter contrasted this with the proposed rule, which established numerical emission standards for by-product hydrogen streams, end box ventilation systems, and mercury thermal recovery unit vents, but not for cell room fugitive emissions. The commenter claimed that emissions from the cell room will be able to exceed 2,300 grams/day so long as the work practices are followed, when the rule as proposed prohibits such a result.

The commenter concluded that it is not sufficient to say that the work practices that have been proposed are more stringent than the existing requirements, because neither the existing nor proposed work practices by themselves require any given numeric level to be achieved. They argued that the existing numeric limit provides EPA and the public with an enforceable limit of performance to which owners and operators can be held. The commenter went on to indicate that such a numerical standard is particularly necessary, as plants are currently emitting far more than 2,300 grams per day of mercury. To support this assertion, the commenter provided information indicating that mercury cell plants add much more mercury to their cells than 2,300 grams per day, and they concluded that cell room emissions is a very likely way that mercury is lost. In conclusion, the commenter stated that it would be inappropriate for EPA to rely entirely on a work practice standard and eliminate stricter provisions that would enable the Agency to insist that facilities keep their emissions below a set level.

Response: The 40 CFR part 61, Mercury NESHAP, § 61.53(c)(1), contains requirements for stack sampling to determine emission levels for cell room ventilation systems at mercury chlor-alkali plants. If an owner or operator meets the prescribed work practice standards, they can assume a mercury emission rate from the cell room of 1,300 grams per day.

While the final rule does not retain the numerical emission limitation from the 40 CFR part 61 Mercury NESHAP, the requirements in the final rule for fugitive mercury emissions from the cell room are far more stringent than the design, maintenance, and housekeeping practices allowed by the Mercury NESHAP in lieu of meeting the numerical limit. In addition, the Mercury NESHAP contained only 18 work practice requirements as compared to the more than 80 design, operation, maintenance, inspection, and required actions for repair contained in tables 1 through 4 to the final rule. The work practice standards specify the equipment and areas to be inspected along with the frequency of the inspections and conditions that trigger corrective action. Response time intervals for when the corrective actions must occur are also specified. Furthermore, some types of inspections are required at more frequent intervals than required by the Mercury NESHAP (*e.g.*, inspecting decomposers for hydrogen leaks twice per day rather than once each day). In addition, the detailed recordkeeping procedures and reporting provisions are more fully developed than those in the Mercury NESHAP, as well as requirements for storage of mercury-containing wastes.

Finally, the work practice standards contain a requirement for owners and operators to develop and implement a plan for the routine washdown of accessible surfaces in the cell room and other areas. The standards establish the duty for owners or operators to prepare and implement a written plan for washdowns and specify elements to be addressed in the plan. A requirement for washdowns is an important part of an overall approach to reducing cell room fugitive emissions.

Along with a floor-level periodic mercury monitoring program (discussed later), not only will the work practice standards in the final rule result in reduced mercury fugitive emissions (and, therefore, mercury consumption), but provide much more enforceable provisions so that an inspector can verify that they are being met.

In addition, we have calculated emission reductions for the final rule. Assuming that every facility is complying with the 1,000 grams per day limit from point sources (this value assumes that 1,300 grams per day of the 2,300 grams per day facility limit are being used for fugitive emissions), we estimate that baseline emissions from all nine existing facilities (relative to the Mercury NESHAP) are 3,285 kg/yr. We estimate that annual emissions after the application of MACT to be 217 kg/yr. Therefore, the final rule will result in emission reductions of 3,068 kg/yr, or approximately 93 percent from the existing Mercury NESHAP. This supports our position that we are not setting a standard that allows backsliding. Therefore, once the final rule compliance date ensues, sources subject to the provisions of the final rule will no longer be subject to the Mercury NESHAP.

Comment: Commenters disagreed with EPA's proposal to institute a continuous mercury monitoring program whereby owners and operators would be required to continuously monitor mercury concentration in the upper portion of each cell room and take corrective actions when elevated mercury vapor levels are detected. The commenters stated that the proposed

monitoring program was seriously flawed and should be deleted from the final rule. The commenters noted that periodic monitoring done in various areas of the cell room (as currently practiced to ensure compliance with Occupational Health & Safety Administration (OSHA) permissible exposure limits) was an appropriate substitute. Several commenters stated that they would not be opposed to the continuous mercury monitoring program if the technology were field demonstrated.

In contrast, one commenter, which submitted comments after the close of the comment period, "enthusiastically" supported the proposed cell room monitoring program. Nonetheless, the commenter felt that it was unwise for the EPA to allow each owner/operator to set his/her own cell room action level.

Some commenters stated that cell room monitoring is redundant to the housekeeping requirements, and that the work practices required in Tables 1–5 to the proposed rule allow for sufficient opportunity to quickly detect abnormal sources of mercury emissions. Another commenter stated that the final rule should either require continuous monitoring or detailed work practice standards but not both. The commenter argued that cell room designs vary greatly. Given this variability, the commenter urged EPA to enable facilities to select the appropriate compliance strategy for individual circumstances.

Response: With regard to technical feasibility, a cell room mercury monitoring system was tested in 2000 at a mercury cell facility in Augusta, Georgia, that demonstrated that the monitoring technology can be effectively installed and operated in mercury cell chlor-alkali plant cell rooms, and this technology, along with other measures, can be an effective mechanism to identify leaking equipment and other problems that result in fugitive mercury emissions from the cell room.

We acknowledge that this success, which occurred in a limited and very controlled situation for a short time period, does not necessarily prove that similar monitoring at every mercury cell room would prove to be an effective long-term method to reduce mercury fugitive emissions. In fact, the design and operation of the Augusta facility probably represented the optimum circumstances for a mercury cell room monitoring program to be successful. We are aware that cell room designs vary greatly and recognize that the design affects the location and number of monitors necessary to accurately monitor each individual cell room. In addition, depending on the design of the roof, it may be possible that installation of monitors that adequately monitor mercury concentration would not even be possible.

Even with these limitations, a well designed and implemented cell room monitoring program can effectively reduce mercury fugitive emissions on a long-term basis. Therefore, we included this concept in the final rule.

However, we do agree with the commenters that a comprehensive continuous cell room monitoring program should be sufficient to reduce fugitive mercury emissions from the cell room without imposing the overlapping requirements of the detailed work practices. Therefore, we have concluded that it is appropriate to allow facilities to implement the continuous cell room monitoring program as an alternative to, and not in addition to, the work practice requirements. In the final rule, facilities are given the option to implement the cell room continuous monitoring program in lieu of the work practice requirements. We do, however, feel there is a need to outline more specifically the elements that must be included in the cell room monitoring program to ensure that it provides at least the same level of control as the work practices and cell room monitoring program would have provided together. Therefore, there are more prescriptive requirements in the final rule for the cell room monitoring plan option. The final rule dictates how the action level is to be established, what measures must be followed when the action level is exceeded, and what records must be kept.

Although the continuous cell room monitoring provisions are optional, some mercury monitoring to detect elevated mercury levels in the cell room is appropriate. Therefore, we have included a periodic monitoring program to be performed throughout the cell room as a substitute for continuous monitoring. The final rule contains a floor-level periodic monitoring program as part of the work practice standards.

F. What Issues Were Raised Regarding the Monitoring and Continuous Compliance Requirements?

Comment: Three commenters questioned EPA's intent in establishing emission limitations based on the initial performance test. These commenters felt that the proposed standards amounted to changing the emission limit based on the emissions observed during the performance test which amounted to ignoring the emission limit established through the rulemaking process. Two of the commenters stated that the amount of mercury emissions measured during the initial compliance performance test should be used only to verify compliance with the MACT standards, and not to establish new emission limits. The commenters were concerned that the emission limits would become floating limits based on the most recent performance test, as opposed to being MACT standards.

The commenters indicated that variations around the concentrations, above and below, measured during the performance test can be expected. Treatment systems employed to obtain compliance (*e.g.*, carbon) would be expected to show some slight deterioration after a period of operation. Therefore, a performance test conducted just after a carbon change would result in an unrealistically low operating limit. Finally, the commenters were concerned that different facilities would have different operating limits, depending on variables like the type of control equipment installed, the operating conditions on the day of the emission test (*i.e.*, mercury volatility changes significantly with temperature), and other factors. One commenter was concerned that, given the wide variability in emission constituents, operators would not be able to assure that their facilities will consistently emit within the limits established during an ideally controlled initial performance test.

Two of the commenters acknowledged that other MACT standards require the gathering of data for surrogate parameters (*e.g.*, scrubber liquor pH, scrubber liquor flow) when direct measurement of a control parameter is not required or feasible. These surrogate parameters are used to establish performance requirements for the control device. The commenters went on to say that in cases where performance requirements based on surrogate parameters were established during the performance test, the emission limitation was not modified to reflect the actual emissions experience during the test. However, the commenters stated that they felt that this is exactly what is required under the proposed rule.

One of the commenters argued that EPA's required installation of instruments directly in the vent stream to continuously monitor actual concentration of mercury and, therefore, actual mercury emissions, means that there is no need to rely on operating parameters which have been calculated for only one set of conditions.

One commenter was concerned about the cost-benefits of continuous

monitoring systems (CMS) in the by-product hydrogen, end box ventilation system, and mercury thermal recovery unit vent streams. According to the commenter, the types of control devices likely to be used for controlling mercury emissions from these streams (*i.e.*, carbon or molecular sieve units) have very good performance characteristics and are not likely to incur short-term upsets. The commenter noted that performance is subject to normal variations, and the ability of these systems to absorb mercury does degrade over time. The commenter stated that before emissions reach the permit limits due to reduced performance, the beds must be replaced. The commenter requested that in lieu of CMS, facilities should be allowed to rely on the known capability of the systems to operate reliably. The commenter stated that the Agency could delete the requirement for CMS without any real harm to the environment.

Response: In general, we disagree with the premise of the commenters' argument. The proposed rule would have required that continuous compliance for each vent be determined by monitoring mercury concentration as an operating limit. The measured concentrations would not have been used to compare directly with the emission limitations. Rather, they would have provided an indication that the control device was performing in a manner consistent with the operation during the initial performance test. Therefore, the proposed requirements to establish operating limits would have established emission limitations, or resulted in changing emission limits, based on the initial performance test.

However, we do acknowledge that there is a difference in a mercury concentration operating limit and an operating limit based on surrogate parameters because the mercury concentration is obviously a direct measure of mercury emissions. In fact, we agree with the point made by the one commenter that there is no need to rely on operating parameters when a direct measurement of emissions is being required.

As discussed at length in the proposal preamble (67 FR 44690), we considered requiring mercury continuous emission monitors (CEM) that would directly measure in units of the standard. Although monitoring that directly measures compliance is preferred, we decided to propose mercury concentration operating limits based on the uncertainties associated with the cost and reliability of the mercury monitoring devices. Commenters did not provide any information to alleviate these concerns. In fact, they shared our basic concerns even if the monitoring devices were only used for operating limits.

We weighed the comments related to the mercury concentration operating limits against the concerns associated with using mercury concentration monitors as CEM. Our preference continues to be to require mercury CEM. With sufficient evaluation, analysis, and refinement, the industry will find these devices acceptable. However, we could not require these devices in the final rule without a fallback alternative if sources found that these monitoring devices were not acceptable for use within the industry.

During the development of the proposed standards, we learned that many mercury cell chlor-alkali facilities conducted periodic (*e.g.*, weekly, monthly) tests to determine the mercury content in vent streams. This is done to assess control device performance or, for the by-product hydrogen stream, to ensure product quality. These tests are not typically conducted using EPA-approved test methods, but are usually conducted using modified methods. Since this periodic testing is already being conducted at many mercury cell plants, we evaluated whether a continuous compliance option could be included in the final rule based on such periodic testing. Since such testing directly measures mercury emissions, we concluded that it would be an acceptable alternative to mercury CEM. The only question was how often such testing would be needed to ensure continuous compliance with the emission limitations. Daily testing would certainly be adequate, but we were concerned about the costs and burden associated with 365 tests each year for each process vent.

The most common final control device is (or will be) nonregenerative carbon adsorption. These fixed bed carbon devices can operate for long periods of time before a carbon change is needed. The carbon replacement frequency is often more than a year. Weekly testing would be more than sufficient to represent the emissions for the entire week and to indicate when breakthrough (*i.e.*, the point at which the carbon has become saturated with mercury emissions) is approaching. Because breakthrough does not occur instantaneously, but is slowly approached over time, weekly testing is sufficient to detect the point at which breakthrough is approaching.

However, there is the possibility that non-carbon devices such as condensers, absorbers, or regenerative molecular sieves could be used as the final control device to comply with the emission limits in the final rule. Since improper operation of these devices could result in higher emissions for short periods, we had concerns about utilizing weekly testing for these devices. However, we concluded that if parametric monitoring of surrogate parameters (*e.g.*, condenser temperature) were conducted to ensure consistent and proper operation of these devices, weekly testing would be acceptable.

Therefore, the final rule includes two options for continuous compliance for the by-product hydrogen stream, the end box ventilation system vent, and the mercury thermal recovery unit vent. The first option is continuous emissions monitoring using a mercury continuous emissions monitoring system. The second is periodic testing using Method 101, 101A, or 102 or an approved alternative method. Specifically, this second option requires that at least three acceptable test runs be conducted each week. As part of the periodic testing option, if the final control device is not a nonregenerative carbon adsorber, surrogate parameter monitoring is required.

V. What Are the Environmental, Cost, and Economic Impacts of the Final Rule?

A. What Are the Air Emission Impacts?

The level of mercury emissions allowed by the Mercury NESHAP is 2,300 grams per day. If one assumes that all nine plants in the source category emit mercury at this level, and that each operates 365 days a year, total annual potential-to-emit baseline emissions would be 7,556 kg/yr (16,658 lb/yr). Annual potential-to-emit baseline emissions for fugitive emission sources would be 4,271 kg/yr (9,416 lb/yr), based on 1,300 grams per day assumed for each plant's cell room ventilation system when the 18 design, maintenance, and housekeeping practices referenced in the Mercury NESHAP are followed. Annual potential-to-emit baseline emissions for by-product hydrogen streams, end box ventilation system vents, and mercury thermal recovery unit vents would be 3,285 kg/yr (7,242 lb/yr), based on the remaining 1,000 grams per day allowed. We estimate that the final rule will reduce industrywide mercury emissions for by-product hydrogen streams, end box ventilation system vents, and mercury thermal recovery unit vents from this annual potential-to-emit baseline to around 217 kg/yr (478 lb/yr), which is equivalent to about 93 percent reduction.

While the level of mercury emissions allowed by the Mercury NESHAP defines the potential-to-emit baseline, the sum of annual mercury emission releases from by-product hydrogen streams, end box ventilation system vents, and mercury thermal recovery vents, as estimated by mercury cell chlor-alkali plants, defines an annual actual baseline for vents of about 800 kg/yr (1,764 lb/yr). We estimate that the final rule will reduce industrywide mercury emissions for vents from this annual actual baseline to around 217 kg/yr (478 lb/yr), which is equivalent to about 73 percent reduction.

We estimate that secondary air pollution emissions will result from the production of electricity required to operate new control devices and new monitoring equipment assumed for plant vents. Assuming electricity production as based entirely on coal combustion for a worst-case scenario, we estimated plant-specific impacts for sulfur dioxide, nitrogen oxides, particulate matter, and carbon monoxide emissions. The total estimated secondary air impacts of the final requirements for point sources at the nine mercury cell chlor-alkali plants is around 2.12 mg/yr (4.67 tpy) for all pollutants combined.

We are unable to quantify the primary air emission impacts associated with the final work practice standards, so no mercury emission reduction is assumed for fugitive emission sources. However, we feel strongly that the new and more explicit requirements contained in the final standards will in fact result in mercury emission reductions beyond baseline levels. Relative to secondary impacts, we expect that secondary air pollution emissions will result from the production of electricity required to operate new monitoring equipment assumed for plant cell rooms. We estimate the secondary air impacts of the final rule for fugitive emission sources to be 0.112 mg/yr (0.124 tpy).

B. What Are the Non-Air Health, Environmental, and Energy Impacts?

We do not expect that there will be any significant adverse non-air health impacts associated with the final standards for mercury-cell chlor-alkali plants.

We estimate that an increase in the amount of mercury-containing waters will result from the heightened use of packed tower scrubbing assumed for several plant vents. The total estimated water pollution impact of the final rule for point sources is about 1.5 million liters (404 thousand gallons) of additional wastewater per year. We estimate that an increase in the amount of mercury-containing solid wastes will result with the heightened use of carbon adsorption assumed for several plant vents. The total estimated solid waste impact of the final rule for point sources is about 8.8 mg/yr (9.7 tpy) of additional mercury-containing spent carbon.

We are unable to quantify non-air environmental impacts associated with the final work practice standards, so no wastewater and solid waste impacts are assumed for fugitive emission sources.

We estimate that the final requirements for point sources will result in increased energy consumption, specifically additional fan power in conveying gas streams through new carbon adsorbers and new packed scrubbers assumed for certain plant vents and additional power consumed by new vent monitoring equipment. The total estimated energy impacts of the final requirements for point sources is about 772 thousand kW-hr/yr.

We estimate that the final requirements for fugitive emission sources will result in increased energy consumption required to operate new monitoring equipment assumed for plant cell rooms. The total estimated energy impacts of the final requirements for fugitive emission sources is about 39 thousand kW-hr/yr.

C. What Are the Cost and Economic Impacts?

For projecting cost impacts of the final rule on the mercury cell chlor-alkali industry, we estimate that all nine plants will incur costs to meet the final work practice standards and the final monitoring, recordkeeping, and reporting requirements. We estimate that seven plants will incur costs to meet the final emission limits for by-product hydrogen streams and end box ventilation system vents, and two plants will incur costs to meet the final emission limits for mercury thermal recovery units. The total estimated capital cost of the final rule for the nine mercury cell chlor-alkali plants is around $1.6 million, and the total estimated annual cost is about $1.4 million per year. Plant-specific annual costs in our estimate range from about $130,000 for the least-impacted plant to about $260,000 for the worst-impacted plant.

The purpose of the economic impact analysis is to estimate the market response of chlor-alkali production facilities to the final standards and to determine the economic effects that may result due to the final NESHAP. Chlor-alkali production jointly creates both chlorine and caustic, usually sodium hydroxide, in fixed proportions. Being joint commodities, the economic analysis considers the impacts of the final NESHAP on both the chlorine and sodium hydroxide markets.

The chlor-alkali production source category contains 43 facilities, but only nine facilities using mercury cells are directly affected by the final standards. These nine facilities are located at nine plants that are owned by seven companies.

Chlor-alkali production in mercury cells leads to potential mercury emissions from hydrogen streams, end box ventilation system vents, mercury thermal recovery units, and fugitive emission sources. The compliance costs for the final standards, therefore, relate to the purchase, installation, operation, and maintenance of pollution control equipment at the point sources, as well as the labor costs and overheads associated with observing work practices addressing fugitive emissions. The estimated total annual costs for the final NESHAP are $1.8 million. This cost estimate represents about 0.30 percent of the 1997 chlorine sales revenue for the mercury cell chlor-alkali production facilities. Furthermore, the total annual costs represent less than 0.01 percent of the revenues of owning the directly affected mercury cell chlor-alkali plants.

The economic analysis predicts minimal changes in industry outputs and the market prices of chlorine and sodium hydroxide as a result of the estimated control costs. The new market equilibrium quantities of chlorine and sodium hydroxide decrease by less than 0.1 percent. Equilibrium prices of chlorine and sodium hydroxide both rise by less than 0.1 percent due to the final standards. Based on these estimates, we conclude that the final standards are not likely to have a significant economic impact on the chlorine production industry as a whole or on secondary markets such as the labor market and foreign trade.

We performed an economic analysis to determine facility- and company-specific impacts. These economic impacts are measured by calculating the ratio of the estimated annualized compliance costs of emissions control for each entity to its revenues (*i.e.*, cost-to-sales ratio). After the cost-to-sales ratio is calculated for each entity, it is then multiplied by 100 to convert the ratio into percentages. Actual revenues at the facility level are not available, therefore, estimated facility revenues received from the sale of chlorine are used. Some of these facilities also produce caustic as potassium hydroxide, but the revenues from the sale of this product are not estimated. The nine mercury cell chlor-alkali

plants have positive cost-to-sales ratios. The ratio of costs to estimated chlorine sales revenue for these facilities range from a low of 0.16 percent to a high of 1.00 percent. The average cost-to-sales ratio for the nine mercury process chlorine production facilities is 0.46 percent. More detailed economic analysis predicted minimal changes in chlorine production at each facility. Thus, overall, the economic impact of the final standards is minimal for the facilities producing chlorine.

The share of compliance costs to company sales are calculated to determine company level impacts. Since seven companies own the nine affected facilities, all seven firms face positive compliance costs from the final NESHAP. The ratio of costs to estimated revenues range from a low of less than 0.01 percent to a high of 0.22 percent, and the average ratio of costs to company revenues is 0.06 percent. Again, more detailed economic analysis at the company level predicts little change in company output or revenues. So, at the company level, the final standards are not anticipated to have a significant economic impact on companies that own and operate the chlorine production facilities.

No facility or company is expected to close as a result of the final standards, and the economic impacts to consumers are anticipated to be minimal. The generally small scale of the impacts suggests that there will also be no significant impacts on markets for the products made using chlorine or sodium hydroxide. For more information, consult the economic impact analysis report entitled "Economic Impact Analysis for the Final Mercury Cell Chlor-Alkali Production NESHAP," which is available in the docket for this rulemaking.

VI. Statutory and Executive Order Reviews

A. Executive Order 12866—Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the Agency must determine whether the regulatory action is "significant" and therefore subject to Office of Management and Budget (OMB) review and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligation of recipients thereof; or

(4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

It has been determined that the final rule is not a "significant regulatory action" under the terms of Executive Order 12866 and is, therefore, not subject to OMB review.

B. Paperwork Reduction Act

The information collection requirements in the final rule have been submitted for approval to OMB under the requirements of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The information requirements are not enforceable until OMB approves them.

The information requirements are based on notifications, records, and reports required by the General Provisions (40 CFR part 63, subpart A), which are mandatory for all operators subject to national emission standards. These recordkeeping and reporting requirements are specifically authorized under section 114 of the CAA (42 U.S.C. 7414). All information submitted to the EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made will be safeguarded according to Agency policies in 40 CFR part 2, subpart B, Confidentiality of Business Information.

According to the ICR, the total 3-year monitoring, reporting, and recordkeeping burden for this collection is 6,692 labor hours, and the annual average burden is 2,231 labor hours. The total annualized cost of monitoring, reporting, and recordkeeping is approximately $628,212. The labor cost over the 3-year period is $295,928 or $98,643 per year. The annualized capital cost for monitoring equipment is $262,458. Annual operation and maintenance costs are $365,754 over 3 years, averaging $121,918 per year. This estimate includes a one-time plan for demonstrating compliance, annual compliance certificate reports, notifications, and recordkeeping.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purpose of collecting, validating, and verifying information; process and maintain information and disclose and provide information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to respond to a collection of information; search existing data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 48 CFR chapter 15. The OMB control number(s) for the information collection requirements in the final rule will be listed in an amendment to 40 CFR part 9 or 48 CFR chapter 15 in a subsequent **Federal Register** document after OMB approves the ICR.

C. Regulatory Flexibility Act

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the final rule. The EPA has also determined that the final rule will not have a significant economic impact on a substantial number of small entities. For purposes of assessing the impacts of today's final rule on small entities, small entity is defined as: (1) A small business according to the Small Business Administration (SBA) size standards by NAICS code, a maximum of 1,000 employees for the alkalies and chlorine manufacturing industry; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's final rule on small entities, EPA has concluded that this action will not have a significant economic impact on a substantial number of small entities. We have determined that two of the seven companies that own mercury chlor-alkali plants are small entities. Although small businesses represent 30 percent of the companies within the source category, they are expected to incur 18 percent of the total industry annual compliance costs. There are no companies with compliance costs equal to or greater than 1 percent of their sales. No firms are expected to close rather than incur the costs of compliance with the final rule.

Furthermore, firms are not projected to close their facilities due to the final rule.

Although the final rule will not have significant economic impact on a substantial number of small entities, we have nonetheless worked aggressively to minimize the impact of the final rule on small entities, consistent with our obligation under the CAA. The two companies have been active participants in the rulemaking process through their association with the industry trade organization, the Chlorine Institute. Therefore, we met with representatives of these small entities on numerous occasions. In addition, we conducted an extended visit to a mercury cell chlor-alkali plant owned by one of these companies to understand their process and emission control techniques, along with any unique impacts that might occur due to the fact that their company was a small entity. In general, the provisions of the rule were deigned to achieve the maximum emission reduction while also incorporating as many of the existing practices currently being employed by the industry. The input received from these small entities was duly considered in this evaluation.

D. Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, we generally must prepare a written statement, including cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, and Tribal governments, in the aggregate, or to the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires us to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows us to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if we publish with the final rule an explanation why that alternative was not adopted.

Before we establish any regulatory requirements that may significantly or uniquely affect small governments, including Tribal governments, we must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of our regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

We have determined that the final rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, or tribal governments, in the aggregate, or the private sector in any 1 year. The total annualized cost of the final rule has been estimated to be $1,390,000. Thus, today's final rule is not subject to the requirements of sections 202 and 205 of the UMRA. In addition, we have determined that the final rule contains no regulatory requirements that might significantly or uniquely affect small governments because it contains no regulatory requirements that apply to such governments or impose obligations upon them. Therefore, the final rule is not subject to the requirements of section 203 of the UMRA.

E. Executive Order 13132—Federalism

Executive Order 13132, entitled "Federalism" (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" are defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of Government."

The final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of Government, as specified in Executive Order 13132. The standards apply only to mercury cell chlor-alkali plants and do not pre-exempt States from adopting more stringent standards or otherwise regulate State or local governments. Thus, Executive Order 13132 does not apply to the final rule.

Although section 6 of Executive Order 13132 does not apply to the final rule, EPA did consult with State and local officials in developing the final rule. No concerns were raised by these officials during this consultation.

F. Executive Order 13175—Consultation and Coordination With Indian Tribal Governments

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 6, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." "Policies that have tribal implications" are defined in the Executive Order to include regulations that have "substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes."

The final rule does not have tribal implications. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175. This is because no tribal governments own or operate a mercury cell chlor-alkali plant. Thus, Executive Order 13175 does not apply to the final rule.

G. Executive Order 13045—Protection of Children From Environmental Health Risks and Safety Risks

Executive Order 13045, "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997) applies to any rule that (1) is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children and explain why the planned rule is preferable to other potentially effective and reasonably feasible alternatives that we considered.

The final rule is not subject to Executive Order 13045 because it is not an economically significant regulatory action as defined by Executive Order 12866. In addition, EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health and safety risks, such that the analysis required under section

5–501 of the Executive Order has the potential to influence the regulation.

As with most rulemakings developed under section 112(d) of the CAA, the final rule is based on MACT. Risks to public health and impacts on the environment are not typically considered in the development of emissions standards under section 112(d). Rather, these risks and impacts are considered later (within 8 years after promulgation of the MACT rule) under the residual risk program as required by section 112(f) of the CAA. While we do not believe the final rule to be "economically significant," as defined under Executive Order 12866, we do believe that it addresses environmental health or safety risks that may have a disproportionate effect on children.

Mercury has been identified as a priority pollutant under EPA's National Agenda to Protect Children's Health from Environmental Threats and by the Federal Children's Health Protection Advisory Committee (CHPAC). The CHPAC was formed to advise, consult with, and make recommendations to EPA on issues associated with the development of regulations to address the prevention of adverse health effects to children. One of the CHPAC's primary missions was to identify five existing EPA regulations, which if reevaluated, could lead to better protection for children. The CHPAC recommended the Mercury NESHAP for chlor-alkali plants as one of the regulations to be reevaluated considering impacts on children. We adopted the CHPAC recommendation. Therefore, we considered the impacts on children in the development of the final rule. A qualitative assessment of the potential impacts on children's health due to mercury emissions from chlor-alkali plants was presented in the preamble to the proposed rule (67 FR 44693).

Because the final rule does not meet both criteria for applicability, it is not subject to Executive Order 13045. However, based on our assessment, the final rule will help reduce the mercury exposures to humans, including children.

H. Executive Order 13211—Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

The final rule is not subject to Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355, May 22, 2001) because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act of 1995

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Public Law No. 104–113; 15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to the OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

The final rule involves technical standards. The EPA cites in the final rule EPA Methods 1, 1A, 2, 2A, 2C, 2D, 3, 3A, 3B, 4, 5, 101, 101A, 102, and any method to measure mercury (validated with EPA Method 301). Consistent with the NTTAA, EPA conducted searches to identify voluntary consensus standards in addition to these EPA methods. No applicable voluntary consensus standards were identified for EPA Methods 1A, 2A, 2D, and 102. The search and review results have been documented and are placed in the docket (OAR–2002–0017 or A–2000–32) for the final rule.

This search for emissions monitoring procedures identified 14 voluntary consensus standards and five draft standards. The EPA determined that the 14 standards were impractical alternatives to EPA test methods for the purposes of this rulemaking. Therefore, EPA will not adopt these standards today. The reasons for this determination for these 14 standards are in the docket.

The 14 voluntary consensus standards are as follows: ASME C00031 or PTC 19–10–1981, "Part 10 Flue and Exhaust Gas Analyses," for EPA Method 3; ASME PTC–38–80 R85 or C00049, "Determination of the Concentration of Particulate Matter in Gas Streams," for EPA Method 5; ASTM D3154–91 (1995), "Standard Method for Average Velocity in a Duct (Pitot Tube Method)," for EPA Methods 1, 2, 2C, 3, 3B, and 4; ASTM D3464–96, "Standard Test Method Average Velocity in a Duct Using a Thermal Anemometer," for EPA Method 2; ASTM D3685/D3685M–98, "Test Methods for Sampling and Determination of Particulate Matter in Stack Gases," for EPA Method 5; ASTM D3796–90 (1998), "Standard Practice for Calibration of Type S Pitot Tubes," for EPA Method 2; ASTM D5835–95, "Standard Practice for Sampling Stationary Source Emissions for Automated Determination of Gas Concentration," for EPA Methods 3A; ASTM E337–84 (Reapproved 1996), "Standard Test Method for Measuring Humidity with a Psychrometer (the Measurement of Wet- and Dry-Bulb Temperatures)," for EPA Method 4; CAN/CSA Z223.1–M1977, "Method for the Determination of Particulate Mass Flows in Enclosed Gas Streams," for EPA Method 5; CAN/CSA Z223.2–M86 (1986), "Method for the Continuous Measurement of Oxygen, Carbon Dioxide, Carbon Monoxide, Sulphur Dioxide, and Oxides of Nitrogen in Enclosed Combustion Flue Gas Streams," for EPA Methods 3A; CAN/CSA Z223.26–M1987, "Measurement of Total Mercury in Air Cold Vapour Atomic Absorption Spectrophotometeric Method," for EPA Methods 101 and 101A; ISO 9096:1992 (in review 2000), "Determination of Concentration and Mass Flow Rate of Particulate Matter in Gas Carrying Ducts—Manual Gravimetric Method," for EPA Method 5; ISO 10396:1993, "Stationary Source Emissions: Sampling for the Automated Determination of Gas Concentrations," for EPA Method 3A; ISO 10780:1994, "Stationary Source Emissions—Measurement of Velocity and Volume Flowrate of Gas Streams in Ducts," for EPA Method 2.

The following five standards identified in this search were not available at the time the review was conducted for the purposes of this rulemaking because they are under development by a voluntary consensus body: ASME/BSR MFC 12M, "Flow in Closed Conduits Using Multiport Averaging Pitot Primary Flowmeters," for EPA Method 2; ASME/BSR MFC 13M, "Flow Measurement by Velocity Traverse," for EPA Method 2 (and possibly 1); ISO/DIS 12039, "Stationary Source Emissions—Determination of Carbon Monoxide, Carbon Dioxide, and Oxygen—Automated Methods," for EPA Method 3A; PREN 13211 (1998), "Air Quality—Stationary Source Emissions—Determination of the Concentration of Total Mercury," for EPA Methods 101, 101A (and mercury portion of EPA Method 29); and ASTM Z6590Z, "Manual Method for Both Speciated and Elemental Mercury" is a potential alternative for portions of EPA Methods 101A and Method 29 (mercury portion only).

Section 63.8232 of the final rule lists the EPA testing methods included in the final rule. Under 40 CFR 63.7(f) and 63.8(f), a source may apply to EPA for

permission to use alternative test methods or alternative monitoring requirements in place of any of the EPA testing methods, performance specifications, or procedures.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2). The final rule will be effective on December 19, 2003.

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances, Intergovernmental relations, Recordkeeping and reporting requirements.

Dated: August 25, 2003.

Marianne Lamont Horinko,

Acting Administrator.

■ For the reasons stated in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is amended as follows:

PART 63—[AMENDED]

■ 1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

■ 2. Part 63 is amended by adding subpart IIIII to read as follows:

Subpart IIIII—National Emission Standards for Hazardous Air Pollutants: Mercury Emissions From Mercury Cell Chlor-Alkali Plants

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What This Subpart Covers

§ 63.8180 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for affected sources of mercury emissions at mercury cell chlor-alkali plants. This subpart also establishes requirements to demonstrate initial and continuous compliance with all applicable emission limitations and work practice standards in this subpart.

§ 63.8182 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate a mercury cell chlor-alkali plant.

(b) You are required to obtain a title V permit, whether your affected source is a part of a major source of hazardous air pollutant (HAP) emissions or a part of an area source of HAP emissions. A major source of HAP is a source that emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year. An area source of HAP is a source that has the potential to emit HAP but is not a major source. Nothing in this subpart revises how affected sources are aggregated for purposes of determining whether an affected source is a part of an area, nonmajor, or major source under any provisions of the Clean Air Act (CAA) or EPA's regulations. For information on aggregating affected sources to determine what is a source under title V, see the definition of major source in 40 CFR 70.2, 71.2 and 63.2.

(c) Beginning on December 19, 2006, the provisions of subpart E of 40 CFR part 61 that apply to mercury chlor-alkali plants, which are listed in paragraphs (c)(1) through (3) of this section, are no longer applicable.

(1) § 61.52(a);

(2) § 61.53(b) and (c); and

(3) § 61.55(b), (c) and (d).

§ 63.8184 What parts of my plant does this subpart cover?

(a) This subpart applies to each affected source at a plant site where chlorine and caustic are produced in mercury cells. This subpart applies to two types of affected sources: the mercury cell chlor-alkali production facility, as defined in paragraph (a)(1) of this section; and the mercury recovery facility, as defined in paragraph (a)(2) of this section.

(1) The mercury cell chlor-alkali production facility designates an affected source consisting of all cell rooms and ancillary operations used in the manufacture of product chlorine, product caustic, and by-product hydrogen at a plant site. This subpart covers mercury emissions from by-product hydrogen streams, end box ventilation system vents, and fugitive emission sources associated with cell rooms, hydrogen systems, caustic systems, and storage areas for mercury-containing wastes.

(2) The mercury recovery facility designates an affected source consisting of all processes and associated operations needed for mercury recovery from wastes at a plant site. This subpart covers mercury emissions from mercury thermal recovery unit vents and fugitive emission sources associated with storage areas for mercury-containing wastes.

(b) An affected source at your mercury cell chlor-alkali plant is existing if you commenced construction of the affected source before July 3, 2002.

(c) A mercury recovery facility is a new affected source if you commence construction or reconstruction of the affected source after July 3, 2002. An affected source is reconstructed if it meets the definition of "reconstruction" in § 63.2.

§ 63.8186 When do I have to comply with this subpart?

(a) If you have an existing affected source, you must comply with each emission limitation, work practice standard, and recordkeeping and reporting requirement in this subpart that applies to you no later than December 19, 2006.

(b) If you have a new or reconstructed mercury recovery facility and its initial startup date is on or before December 19, 2003, you must comply with each emission limitation, work practice standard, and recordkeeping and reporting requirement in this subpart that applies to you by December 19, 2003.

(c) If you have a new or reconstructed mercury recovery facility and its initial startup date is after December 19, 2003, you must comply with each emission limitation, work practice standard, and recordkeeping and reporting requirement in this subpart that applies to you upon initial startup.

(d) You must meet the notification and schedule requirements in § 63.8252. Several of these notifications must be submitted before the compliance date for your affected source(s).

Emission Limitations and Work Practice Standards

§ 63.8190 What emission limitations must I meet?

(a) *Emission limits.* You must meet each emission limit in paragraphs (a)(1) through (3) of this section that applies to you.

(1) New or reconstructed mercury cell chlor-alkali production facility. Emissions of mercury are prohibited from a new or reconstructed mercury cell chlor-alkali production facility.

(2) Existing mercury cell chlor-alkali production facility. During any consecutive 52-week period, you must not discharge to the atmosphere total mercury emissions in excess of the applicable limit in paragraph (a)(2)(i) or (ii) of this section calculated using the procedures in § 63.8243(a).

(i) 0.076 grams of mercury per megagram of chlorine produced (1.5×10^{-4} pounds of mercury per ton of chlorine produced) from all by-product hydrogen streams and all end box ventilation system vents when both types of emission points are present.

(ii) 0.033 grams of mercury per megagram of chlorine produced (6.59×10^{-5} pounds of mercury per ton of chlorine produced) from all by-product hydrogen streams when end box ventilation systems are not present.

(3) New, reconstructed, or existing mercury recovery facility. You must not discharge to the atmosphere mercury emissions in excess of the applicable limit in paragraph (a)(3)(i) or (ii) of this section.

(i) 23 milligrams per dry standard cubic meter from each oven type mercury thermal recovery unit vent.

(ii) 4 milligrams per dry standard cubic meter from each non-oven type mercury thermal recovery unit vent.

(b) [Reserved]

§ 63.8192 What work practice standards must I meet?

You must meet the work practice requirements specified in paragraphs (a) through (f) of this section. As an alternative to the requirements specified in paragraphs (a) through (d) of this section, you may choose to comply with paragraph (g) of this section.

(a) You must meet the work practice standards in Tables 1 through 4 to this subpart, except as specified in paragraph (g) of this section.

(b) You must adhere to the response intervals specified in Tables 1 through 4 to this subpart at all times. Nonadherence to the intervals in Tables 1 through 4 to this subpart constitutes a deviation and must be documented and reported in the compliance report, as required by § 63.8254(b), with the date and time of the deviation, cause of the deviation, a description of the conditions, and time actual compliance was achieved.

(c) As provided in § 63.6(g), you may request to use an alternative to the work practice standards in Tables 1 through 4 to this subpart.

(d) You must institute a floor-level mercury vapor measurement program to limit the amount of mercury vapor in the cell room environment through periodic measurement of mercury vapor levels and actions to be taken when a floor-level mercury concentration action level is exceeded. The program must meet the requirements listed in paragraphs (d)(1) through (4) of this section. As specified in § 63.8252(e)(1)(i) to implement this program, you must prepare and submit to the Administrator a floor-level mercury vapor measurement plan which must contain the elements listed in Table 5 to this subpart.

(1) You must utilize a mercury measurement device described in of Table 6 to this subpart to measure the level of mercury vapor in the cell room at floor-level.

(2) You must conduct at least one floor-level mercury vapor measurement evaluation each half day. This evaluation must include three measurements of the mercury concentration at locations representative of the entire cell room floor area. The average of these measurements must be recorded as specified in § 63.8156(c)(1). At a minimum, you must measure the level of mercury vapor above mercury-containing cell room equipment, as well as areas around the cells, decomposers, or other mercury-containing equipment.

(3) You must establish a floor-level mercury concentration action level that is no higher than 0.05 milligrams per cubic meter (mg/m^3).

(4) If a mercury concentration greater than the action level is measured during any floor-level mercury vapor measurement evaluation, you must meet the requirements in either paragraph (d)(4)(i) or (ii) of this section.

(i) If you determine that the cause of the elevated mercury concentration is an open electrolyzer, decomposer, or

other maintenance activity, you must record the information specified in paragraphs (d)(4)(i)(A) through (C) of this section.

(A) A description of the maintenance activity resulting in elevated mercury concentration;

(B) The time the maintenance activity was initiated and completed; and

(C) A detailed explanation how all the applicable requirements of Table 1 to this subpart were met during the maintenance activity.

(ii) If you determine that the cause of the elevated mercury concentration is not an open electrolyzer, decomposer, or other maintenance activity, you must follow the procedures specified in paragraphs (d)(4)(ii)(A) and (B) of this section until the floor-level mercury concentration falls below the floor-level mercury concentration action level. You must also keep all the associated records for these procedures as specified in Table 9 to this subpart.

(A) Within 1 hour of the time the floor-level mercury concentration action level was exceeded, you must conduct each inspection specified in Table 2 to this subpart in the area where the concentration higher than the floor-level mercury concentration action level was measured, with the exception of the cell room floor and the pillars and beam inspections. (B) You must also inspect all decomposers, hydrogen system piping up to the hydrogen header, and other potential locations of mercury vapor leaks in the area using a technique specified in Table 6 to this subpart. You must correct any problem identified during these inspections according to the requirements in Tables 2 and 3 to this subpart.

(e) You must prepare, submit, and operate according to a written washdown plan designed to minimize fugitive mercury emissions through routine washing of surfaces where liquid mercury could accumulate. The written plan must address the elements contained in Table 7 to this subpart.

(f) You must keep records of the mass of all virgin mercury added to cells on an annual basis.

(g) As an alternative to the work practice standards in paragraphs (a) through (d) of this section, you may institute a cell room monitoring program to continuously monitor the mercury vapor concentration in the upper portion of each cell room and to take corrective actions as quickly as possible when elevated mercury vapor levels are detected. As specified in § 63.8252(e)(1)(iv), if you choose this option, you must prepare and submit to the Administrator, a cell room monitoring plan containing the elements listed in Table 5 to this subpart and meet the requirements in paragraphs (g)(1) through (4) of this section.

(1) You must utilize mercury monitoring systems that meet the requirements of Table 8 to this subpart.

(2) You must establish an action level according to the requirements in paragraphs (g)(2)(i) through (iii) of this section.

(i) Beginning on the compliance date specified for your affected source in § 63.8186, measure and record the mercury concentration for at least 30 days using a system that meets the requirements of paragraph (g)(1) of this section.

(ii) Using the monitoring data collected according to paragraph (g)(1)(i) of this section, establish your action level at the 75th percentile of the data set.

(iii) Submit your action level as part of your Notification of Compliance Status report according to § 63.8252(e)(1).

(3) Beginning on the compliance date specified for your affected source in § 63.8186, you must continuously monitor the mercury concentration in the cell room. Failure to monitor and record the data according to § 63.8256(c)(4)(ii) for 75 percent of the time in any 6-month period constitutes a deviation.

(4) If the average mercury concentration for any 1-hour period exceeds the action level established according to paragraph (g)(2) of this section, you must meet the requirements in either paragraph (g)(4)(i) or (ii) of this section.

(i) If you determine that the cause of the elevated mercury concentration is an open electrolyzer, decomposer, or other maintenance activity, you must record the information specified in paragraphs (g)(4)(i)(A) through (C) of this section.

(A) A description of the maintenance activity resulting in elevated mercury concentration;

(B) The time the maintenance activity was initiated and completed; and

(C) A detailed explanation how all the applicable requirements of Table 1 to this subpart were met during the maintenance activity.

(ii) If you determine that the cause of the elevated mercury concentration is not an open electrolyzer, decomposer, or other maintenance activity, you must follow the procedures specified in paragraphs (g)(4)(ii)(A) and (B) of this section until the mercury concentration falls below the action level. You must also keep all the associated records for these procedures as specified in Table 9 to this subpart.

(A) Within 1 hour of the time the action level was exceeded, you must conduct each inspection specified in Table 2 to this subpart, with the exception of the cell room floor and the pillars and beam inspections. You must correct any problem identified during these inspections in accordance with the requirements in Table 2 and 3 to this subpart.

(B) If the Table 2 inspections and subsequent corrective actions do not reduce the mercury concentration below the action level, you must inspect all decomposers, hydrogen system piping up to the hydrogen header, and other potential locations of mercury vapor leaks using a technique specified in Table 6 to this subpart. If a mercury vapor leak is identified, you must take the appropriate action specified in Table 3 to this subpart.

Operation and Maintenance Requirements

§ 63.8222 What are my operation and maintenance requirements?

As required by § 63.6(e)(1)(i), you must always operate and maintain your affected source(s), including air pollution control and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.

General Compliance Requirements

§ 63.8226 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the applicable emission limitations for by-product hydrogen streams, end box ventilation system vents, and mercury thermal recovery unit vents in § 63.8190 at all times, except during periods of startup, shutdown, and malfunction. You must be in compliance with the applicable work practice standards in § 63.8192 at all times, except during periods of startup, shutdown, and malfunction.

(b) You must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in § 63.6(e)(3).

Initial Compliance Requirements

§ 63.8230 By what date must I conduct performance tests or other initial compliance demonstrations?

(a) You must conduct a performance test no later than the compliance date that is specified in § 63.8186 for your affected source to demonstrate initial compliance with the applicable emission limit in § 63.8190(a)(2) for by-product hydrogen streams and end box ventilation system vents and the

applicable emission limit in § 63.8190(a)(3) for mercury thermal recovery unit vents.

(b) For the applicable work practice standards in § 63.8192, you must demonstrate initial compliance within 30 calendar days after the compliance date that is specified for your affected source in § 63.8186.

§ 63.8232 What test methods and other procedures must I use to demonstrate initial compliance with the emission limits?

You must conduct a performance test for each by-product hydrogen stream, end box ventilation system vent, and mercury thermal recovery unit vent according to the requirements in § 63.7(e)(1) and the conditions detailed in paragraphs (a) through (d) of this section.

(a) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 63.7(e)(1).

(b) For each performance test, you must develop a site-specific test plan in accordance with § 63.7(c)(2).

(c) You must conduct at least three test runs to comprise a performance test, as specified in § 63.7(e)(3) and in either paragraph (c)(1) or (2) of this section.

(1) The sampling time and sampling volume for each run must be at least 2 hours and 1.70 dry standard cubic meters (dscm). Mercury results below the analytical laboratory's detection limit must be reported using the reported analytical detection limit to calculate the sample concentration value and, in turn, the emission rate in the units of the standard; or

(2) The sampling time for each test run must be at least 2 hours and the mercury concentration in each field sample analyzed must be at least two times the reported analytical detection limit.

(d) You must use the test methods specified in paragraphs (d)(1) through (4) of this section and the applicable test methods in paragraphs (d)(5) through (7) of this section.

(1) Method 1 or 1A in appendix A of 40 CFR part 60 to determine the sampling port locations and the location and required number of sampling traverse points.

(2) Method 2, 2A, 2C, or 2D in appendix A of 40 CFR part 60 to determine the stack gas velocity and volumetric flow rate.

(3) Method 3, 3A, or 3B in appendix A of 40 CFR part 60 to determine the stack gas molecular weight.

(4) Method 4 in appendix A of 40 CFR part 60 to determine the stack gas moisture content.

(5) For each by-product hydrogen stream, Method 102 in appendix A of 40 CFR part 61 to measure the mercury emission rate after the last control device.

(6) For each end box ventilation system vent, Method 101 or 101A in appendix A of 40 CFR part 61 to measure the mercury emission rate after the last control device.

(7) For each mercury thermal recovery unit vent, Method 101 or 101A in appendix A of 40 CFR part 61 to measure the mercury emission rate after the last control device.

(e) During each test run for a by-product hydrogen stream and each test run for an end box ventilation system vent, you must continuously measure the electric current through the operating mercury cells and record a measurement at least once every 15 minutes.

(f) If the final control device is not a nonregenerable carbon adsorber and if you are demonstrating compliance using periodic monitoring under § 63.8240(b), you must continuously monitor the parameters listed in paragraph (f)(1) of this section and establish your maximum or minimum monitoring value (as appropriate for your control device) using the requirements in paragraph (f)(2) of this section.

(1) During the performance test specified in paragraphs (a) through (d) of this section, you must continuously monitor the control device parameters in paragraphs (f)(1)(i) through (vii) of this section and record a measurement at least once every 15 minutes.

(i) The exit gas temperature from uncontrolled streams;

(ii) The outlet temperature of the gas stream for the final (*i.e.*, the farthest downstream) cooling system when no control devices other than coolers or demisters are used;

(iii) The outlet temperature of the gas stream from the final cooling system when the cooling system is followed by a molecular sieve or regenerative carbon adsorber;

(iv) Outlet concentration of available chlorine, pH, liquid flow rate, and inlet gas temperature of chlorinated brine scrubbers and hypochlorite scrubbers;

(v) The liquid flow rate and exit gas temperature for water scrubbers;

(vi) The inlet gas temperature of regenerative carbon adsorption systems; and

(vii) The temperature during the heating phase of the regeneration cycle for carbon adsorbers or molecular sieves.

(2) To establish a maximum monitoring value or minimum monitoring value, as appropriate for your final control device, you must average the recorded parameters in paragraphs (f)(1)(i) through (vi) of this section over the test period. If your final control device is a regenerative carbon adsorber, you must use the highest temperature reading measured in paragraph (f)(1)(vii) as the reference temperature in § 63.8244(b)(2)(v).

§ 63.8234 What equations and procedures must I use for the initial compliance demonstration?

(a) *By-product hydrogen streams and end box ventilation system vents.* You must determine the total grams of mercury per Megagram of chlorine production (g Hg/Mg Cl_2) of chlorine produced from all by-product hydrogen streams and all end box ventilation system vents, if applicable, at a mercury cell chlor-alkali production facility, and you must follow the procedures in paragraphs (a)(1) through (6) of this section.

(1) Determine the mercury emission rate for each test run in grams per day for each by-product hydrogen stream and for each end box ventilation system vent, if applicable, from Method 101, 101A, or 102 (40 CFR part 61, appendix A).

(2) Calculate the average measured electric current through the operating mercury cells during each test run for each by-product hydrogen stream and for each end box ventilation system vent, if applicable, using Equation 1 of this section as follows:

$$CL_{avg,\ run} = \frac{\sum_{i=1}^{n} CL_{i,\ run}}{n} \qquad \text{(Eq. 1)}$$

Where:

$CL_{avg,\ run}$ = Average measured cell line current load during the test run, amperes;

$CL_{i,\ run}$ = Individual cell line current load measurement (*i.e.*, 15 minute reading) during the test run, amperes; and

n = Number of cell line current load measurements taken over the duration of the test run.

(3) Calculate the amount of chlorine produced during each test run for each by-product hydrogen stream and for each end box ventilation system vent, if applicable, using Equation 2 of this section as follows:

$$P_{Cl_2,\,run} = \left(1.3\times10^{-6}\right)\left(CL_{avg,\,run}\right)\left(n_{cells,\,run}\right)\left(t_{run}\right) \qquad \text{(Eq. 2)}$$

Where:
$P_{Cl_2,run}$ = Amount of chlorine produced during the test run, megagrams chlorine (Mg Cl_2);
1.3×10^{-6} = Theoretical chlorine production rate factor, Mg Cl_2 per hour per ampere per cell;
$CL_{avg,run}$ = Average measured cell line current load during test run, amperes, calculated using Equation 1 of this section;
$n_{cell,run}$ = Number of cells on-line during the test run; and
t_{run} = Duration of test run, hours.

(4) Calculate the mercury emission rate in grams of mercury per megagram of chlorine produced for each test run for each by-product hydrogen stream and for each end box ventilation system vent, if applicable, using Equation 3 of this section as follows:

$$E_{Hg,\,run} = \left[\frac{\left(R_{run}\right)\left(t_{run}\right)}{(24)\left(P_{Cl_2,\,run}\right)}\right] \qquad \text{(Eq. 3)}$$

Where:
$E_{Hg,run}$ = Mercury emission rate for the test run, g Hg/Mg Cl_2;
R_{run} = Measured mercury emission rate for the test run from paragraph (a)(1) of this section, grams Hg per day;
t_{run} = Duration of test run, hours;
24 = Conversion factor, hours per day; and
$P_{Cl_2,run}$ = Amount of chlorine produced during the test run, calculated using Equation 2 of this section, Mg Cl_2.

(5) Calculate the average mercury emission rate for each by-product hydrogen stream and for each end box ventilation system vent, if applicable, using Equation 4 of this section as follows:

$$E_{Hg,\,avg} = \frac{\sum_{i=1}^{n} E_{Hg,\,run}}{n} \qquad \text{(Eq. 4)}$$

Where:
$E_{Hg,avg}$ = Average mercury emission rate for the by-product hydrogen stream or the end box ventilation system vent, if applicable, g Hg/Mg Cl_2;
$E_{Hg,run}$ = Mercury emission rate for each test run for the by-product hydrogen stream or the end box ventilation system vent, if applicable, g Hg/Mg Cl_2, calculated using Equation 3 of this section; and
n = Number of test runs conducted for the by-product hydrogen stream or the end box ventilation system vent, if applicable.

(6) Calculate the total mercury emission rate from all by-product hydrogen streams and all end box ventilation system vents, if applicable, at the mercury cell chlor-alkali production facility using Equation 5 of this section as follows:

$$E_{Hg,\,H_2EB} = \sum_{i=1}^{n} E_{Hg,\,avg} \qquad \text{(Eq. 5)}$$

Where:
E_{Hg,H_2EB} = Total mercury emission rate from all by-product hydrogen streams and all end box ventilation system vents, if applicable, at the affected source, g Hg/Mg Cl_2;
$E_{Hg,avg}$ = Average mercury emission rate for each by-product hydrogen stream and each end box ventilation system vent, if applicable, g Hg/Mg Cl_2, determined using Equation 4 of this section; and
n = Total number of by-product hydrogen streams and end box ventilation system vents at the affected source.

(b) *Mercury thermal recovery vents.* You must determine the milligrams of mercury per dscm exhaust discharged from mercury thermal recovery unit vents, using the procedures in paragraphs (b)(1) and (2) of this section.

(1) Calculate the concentration of mercury in milligrams of mercury per dscm of exhaust for each test run for each mercury thermal recovery unit vent using Equation 6 of this section as follows:

$$C_{Hg,\,run} = \left[\frac{\left(m_{Hg}\right)\left(10^{-3}\right)}{\left(V_{m(std)}\right)}\right] \qquad \text{(Eq. 6)}$$

Where:
$C_{Hg,run}$ = Mercury concentration for the test run, milligrams of mercury per dry standard cubic meter of exhaust;
m_{Hg} = Mass of mercury in test run sample, from Method 101, 101A, or 102, micrograms;
10-3 = Conversion factor, milligrams per microgram; and
$V_{m(std)}$ = Dry gas sample volume at standard conditions, from Method 101, 101A, or 102, dry standard cubic meters.

(2) Calculate the average concentration of mercury in each mercury thermal recovery unit vent exhaust using Equation 7 of this section as follows:

$$C_{Hg,\,avg} = \frac{\sum_{i=1}^{n} C_{Hg,\,run}}{n} \qquad \text{(Eq. 7)}$$

Where:
$C_{Hg,avg}$ = Average mercury concentration for the mercury thermal recovery unit vent, milligrams of mercury per dry standard cubic meter exhaust;
$C_{Hg,run}$ = Mercury concentration for each test run, milligrams of mercury per dry standard cubic meter of exhaust, calculated using Equation 6 of this section; and
n = Number of test runs conducted for the mercury thermal recovery unit vent.

§ 63.8236 How do I demonstrate initial compliance with the emission limitations and work practice standards?

(a) For each mercury cell chlor-alkali production facility, you have demonstrated initial compliance with the applicable emission limit for by-product hydrogen streams and end box ventilation system vents in § 63.8190(a)(2) if you comply with paragraphs (a)(1) and (2) of this section:

(1) Total mercury emission rate from all by-product hydrogen streams and all end box ventilation system vents, if applicable, at the affected source, determined according to §§ 63.8232 and 63.8234(a), did not exceed the applicable emission limit in § 63.8190(a)(2)(i) or (ii); and

(2) If you have chosen the periodic monitoring option specified in § 63.8240(b) and your final control device is not a nonregenerable carbon adsorber, you have established a parameter value according to § 63.8232(f)(2).

(b) For each mercury recovery facility, you have demonstrated initial compliance with the applicable emission limit for mercury thermal recovery unit vents in § 63.8190(a)(3) if you comply with paragraphs (b)(1) and (2) of this section.

(1) Mercury concentration in each mercury thermal recovery unit vent exhaust, determined according to §§ 63.8232 and 63.8234(b), did not exceed the applicable emission limit in § 63.8190(a)(3)(i) or (ii); and

(2) If you have chosen the periodic monitoring option in § 63.8240(b) and have a final control device that is not a nonregenerable carbon adsorber, you

have established a maximum or minimum monitoring value, as appropriate for your control device according to § 63.8232(f)(2).

(c) For each affected source, you have demonstrated initial compliance with the applicable work practice standards in § 63.8192 if you comply with paragraphs (c)(1) through (7) of this section.

(1) You certify in your Notification of Compliance Status that you are operating according to the work practice standards in § 63.8192(a) through (d).

(2) You choose the continuous cell room monitoring program option, you certify in your Notification of Compliance Status that you are operating according to the continuous cell room monitoring program under § 63.8192(g) and you have established your action level according to § 63.8192(g)(2).

(3) You certify in your Notification of Compliance Status that you are operating according to your washdown plan.

(4) You have submitted your washdown plan as part of your Notification of Compliance Status.

(5) You have submitted your continuous cell room monitoring plan, if applicable, as part of your Notification of Compliance Status.

(6) You have submitted your floor-level cell room monitoring plan, if applicable, as part of your Notification of Compliance Status.

(7) You have submitted records of the mass of virgin mercury added to cells for the 5 years preceding the applicable compliance date for your affected source as a part of the Notification of Compliance Status.

(d) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.8252(e).

Continuous Compliance Requirements

§ 63.8240 What are my monitoring requirements?

For each by-product hydrogen stream, each end box ventilation system vent, and each mercury thermal recovery unit vent, you must monitor the mercury emissions using the procedures in paragraph (a) or (b) of this section.

(a) You must continuously monitor the mercury concentration using a mercury continuous emissions monitor according to the requirements in §§ 63.8242(a) and 63.8244(a); or

(b) You must periodically monitor the mercury emissions according to the requirements in §§ 63.8242(b) and 63.8244(b).

§ 63.8242 What are the installation, operation, and maintenance requirements for my continuous monitoring systems?

(a) If you choose the continuous mercury monitoring option under § 63.8240(a), you must install, operate, and maintain each mercury continuous emissions monitor according to paragraphs (a)(1) through (5) of this section.

(1) Each mercury continuous emissions monitor must sample, analyze, and record the concentration of mercury at least once every 15 minutes.

(2) Each mercury continuous emissions monitor analyzer must have a detector with the capability to detect a mercury concentration at or below 0.5 times the mercury concentration level measured during the performance test conducted according to § 63.8232.

(3) In lieu of a promulgated performance specification as required in § 63.8(a)(2), you must develop a site-specific monitoring plan that addresses the elements in paragraphs (a)(3)(i) through (vi) of this section.

(i) Installation and measurement location downstream of the final control device for each by-product hydrogen stream, end box ventilation system vent, and mercury thermal recovery unit vent.

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration analyzer, and the data collection and reduction system.

(iii) Performance evaluation procedures and acceptance criteria (*i.e.*, calibrations).

(iv) Ongoing operation and maintenance procedures according to the requirements of § 63.8(c)(1), (3), and (4)(ii).

(v) Ongoing data quality assurance procedures according to the requirements of § 63.8(d).

(vi) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c), (e)(1), and (e)(2)(i).

(4) You must conduct a performance evaluation of each mercury continuous emissions monitor according to your site-specific monitoring plan.

(5) You must operate and maintain each mercury continuous emissions monitor in continuous operation according to the site-specific monitoring plan.

(b) If you choose the periodic monitoring option and your final control device is not a nonregenerable carbon adsorber, you must install, operate, and maintain a continuous parameter monitoring system (CPMS) for each parameter specified in § 63.8232(f)(1), according to § 63.8(c).

§ 63.8243 What equations and procedures must I use to demonstrate continuous compliance?

(a) *By-product hydrogen streams and end box ventilation system vents.* For each consecutive 52-week period, you must determine the g Hg/Mg Cl_2 produced from all by-product hydrogen streams and all end box ventilation system vents, if applicable, at a mercury cell chlor-alkali production facility using the procedures in paragraphs (a)(1) through (3) of this section. You must begin collecting data on the compliance date that is specified in § 63.8186 for your affected source and calculate your first 52-week average mercury emission rate at the end of the 52nd week after the compliance date.

(1) Each week, you must determine the weekly mercury emission rate in grams per week for each by-product hydrogen stream and for each end box ventilation system vent, if applicable, using one of the monitoring options in paragraph (a)(1)(i) or (ii) of this section.

(i) Continuous mercury monitoring according to §§ 63.8242 and 63.8244(a).

(ii) Periodic monitoring according to § 63.8244(b).

(2) Each week, you must determine the chlorine production and keep records of the production rate as required under § 63.8256(b)(6).

(3) Beginning 52 weeks after the compliance date specified in § 63.8186 for your affected source, you must calculate the 52-week average mercury emission rate from all by-product hydrogen steam and all end box ventilation system vents, if applicable, using Equation 1 of this section as follows:

$$E_{Hg} = \sum_{i=1}^{52}\left[\frac{\left(R_{week_i}\right)}{\left(P_{Cl_2,week_i}\right)}\right] \quad \text{(Eq. 1)}$$

Where:

E_{Hg} = 52-week average mercury emission rate for $week_i$, g Hg/Mg Cl_2;

$R_{week,\ i}$ = Mercury emission rate for $week_i$ from paragraph (a)(1) of this section, g Hg per week;

$P_{Cl2,\ week_i}$ = Amount of chlorine produced during $week_i$, from paragraph (a)(2) of this section, Mg Cl_2 per week.

(b) *Mercury thermal recovery units.* If you choose the continuous monitoring option in § 63.8240(a), you must demonstrate continuous compliance using paragraph (b)(1) of this section. If you choose the periodic monitoring option in § 63.8240(b), you must demonstrate continuous compliance using paragraph (b)(2) of this section.

(1) You must calculate the daily average mercury concentration using Equation 2 of this section as follows:

$$C_{Hg,\ dailyavg} = \frac{\left(\sum_{i=1}^{n} C_{Hg,\ i}\right)}{n} \quad \text{(Eq. 2)}$$

Where:

$C_{Hg,\ dailyavg}$ = Average mercury concentration for the operating day, milligrams per dry standard cubic meter;

$C_{Hg,i}$ = Concentration of mercury measured at the interval *i* (*i.e.*, 15 minute reading) using a mercury continuous emission monitor, milligrams per dry standard cubic meter; and

n = Number of concentration measurements taken during the operating day.

(2) You must calculate the daily average mercury concentration using the procedures in § 63.8234(b).

§ 63.8244 How do I monitor and collect data to demonstrate continuous compliance?

(a) *Continuous monitoring option.* You must monitor mercury concentration according to § 63.8242(a) at all times that the affected source is operating with the exception of paragraphs (a)(1) and (2) of this section.

(1) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor mercury emissions continuously (or collect data at all required intervals) at all times that the affected source is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(2) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels or to fulfill a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing compliance.

(b) *Periodic monitoring option.* If you choose the periodic monitoring option under § 63.8240(b), you must monitor according to the procedures in paragraph (b)(1) or (2) of this section.

(1) If your final control device is a nonregenerable carbon adsorber, then you must conduct at least three test runs per week meeting the criteria specified in § 63.8232(c)(1) and (2) to measure mercury emissions using the test methods specified in § 63.8232(d). Alternatively, you may use any other method that has been validated using the applicable procedures in Method 301, 40 CFR part 63, appendix A.

(2) If your final control device is anything other than a nonregenerable carbon adsorber, you must monitor according to the requirements of paragraphs (b)(2)(i) through (v) of this section.

(i) You must conduct at least three test runs per week meeting the criteria specified in § 63.8232(c)(1) and (2) to measure mercury emissions using the test methods specified in § 63.8232(d). Alternatively, you may use any other method that has been validated using the applicable procedures in Method 301, 40 CFR part 63, appendix A.

(ii) Except as specified in paragraph (b)(2)(iii) of this section, you must continuously collect data at least once every 15 minutes using a CPMS installed and operated according to § 63.8242(b) and record each 1-hour average from all measured data values during each 1-hour period for the applicable parameter identified in § 63.8232(f)(1) using the methods specified in § 63.8244(a).

(iii) As appropriate, you must continuously monitor the temperature specified in § 63.8232(f)(1)(vii) during each heating phase of the regeneration cycle of your carbon adsorber.

(iv) If the hourly average monitoring value of any applicable parameter recorded under paragraph (b)(2)(ii) of this section is below the minimum monitoring value or above the maximum monitoring value of that same parameter established under § 63.8232(f)(2) for 24 consecutive hours, your monitoring value is out of range and you must take corrective action as soon as practicable. The hourly average monitoring value must be above the minimum monitoring value or below the maximum monitoring value as appropriate for that parameter, within 48 hours of the period that the monitoring value is out of range.

(v) If your final control device is a regenerative carbon adsorber, when the maximum hourly value of the temperature measured according to paragraph (b)(2)(iii) of this section is below the reference temperature determined according to § 63.8232(f)(2) for three consecutive regeneration cycles, your monitoring value is out of range and you must take corrective action as soon as practicable. During the first regeneration cycle following the period that your monitoring value is out of range, the maximum hourly value must be above the reference temperature recorded according to § 63.8232(f)(2).

§ 63.8246 How do I demonstrate continuous compliance with the emission limitations and work practice standards?

(a) *By-product hydrogen streams and end box ventilation system vents.* (1) For all by-product hydrogen streams and all end box ventilation system vents, if applicable, you must demonstrate continuous compliance with the applicable mercury emission limit by reducing the mercury emissions data to 52-week averages using Equation 1 of § 63.8243 and maintaining the 52-week average mercury emissions no higher than the applicable mercury emissions limit in § 63.8190(a)(2). To obtain the data to calculate these 52-week averages, you must monitor in accordance with paragraph (a)(1)(i) or (ii) of this section.

(i) *Continuous monitoring option.* You must collect mercury emissions data according to § 63.8244(a), representing at least 75 percent of the 15-minute periods in each operating day of the 52-week compliance period (with data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities not counting toward the 75 percent requirement);

(ii) *Periodic monitoring option.* You must conduct at least three test runs per week to collect mercury emissions samples according to § 63.8244(b)(1) and (2)(i) and, if your final control device is not a nonregenerable carbon adsorber, you must collect data for monitoring values according to § 63.8244(b)(2)(ii) through (v).

(2) You must maintain records of mercury emissions and 52-week average values, as required in § 63.8256(b)(3) and (4). If your final control device is not a nonregenerable carbon adsorber, you must maintain records according to § 63.8256(d).

(b) *Mercury thermal recovery unit vents.* (1) For each mercury thermal recovery unit vent, you must demonstrate continuous compliance with the applicable emission limit specified in § 63.8190(a)(3) by maintaining the outlet mercury hourly-average concentration no higher than the applicable limit. To determine the outlet mercury concentration, you must monitor according to paragraph (b)(1)(i) or (ii) of this section.

(i) *Continuous monitoring option.* You must collect mercury concentration data according to § 63.8244(a), representing at least 75 percent of the 15-minute periods in the operating day (with data

recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities not counting toward the 75 percent requirement).

(ii) *Periodic monitoring option.* You must conduct at least three test runs per week to collect mercury emissions samples according to § 63.8244(b)(1) and (2)(i) and, if your final control device is not a nonregenerable carbon adsorber, you must collect data for monitoring values according to § 63.8244(b)(2)(ii) through (v).

(2) You must maintain records of mercury emissions and daily average values as required in § 63.8256(b)(3). If your final control device is not a nonregenerable carbon adsorber, you must maintain records according to § 63.8256(d).

(c) You must demonstrate continuous compliance with the applicable work practice standards in § 63.8192 by maintaining records in accordance with § 63.8256(c).

§ 63.8248 What other requirements must I meet?

(a) *Deviations.* The instances specified in paragraphs (a)(1) through (4) of this section are deviations and must be reported according to the requirements in § 63.8254.

(1) You must report each instance in which you did not meet each emission limitation in § 63.8190 that applies to you. This includes periods of startup, shutdown, and malfunction.

(2) You must report each instance in which you did not meet each work practice standard in § 63.8192 that applies to you. This includes periods of startup, shutdown, and malfunction.

(3) You must report each instance in which the corrective actions taken according to § 63.8244(b)(2)(iv) did not result in average monitoring values being within range within 48 hours of the period that the monitoring value is out of range.

(4) You must report each instance in which the corrective action taken according to § 63.8244(b)(2)(v) did not result in the maximum hourly temperature being above the reference temperature during the first regeneration cycle following the period that the monitoring value was out of range.

(b) *Startups, shutdowns, and malfunctions.* During periods of startup, shutdown, and malfunction, you must operate in accordance with your startup, shutdown, and malfunction plan that satisfies the requirements in § 63.6(e) and as required in § 63.8226(b).

(1) Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you have an adequate startup, shutdown, or malfunction plan that satisfies the requirements of § 63.6(e), and you have complied with the startup, shutdown, and malfunction plan.

(2) The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in § 63.6(e).

(3) By-passing the control device for maintenance activities is not considered a startup, shutdown, or malfunction event.

Notification, Reports, and Records

§ 63.8252 What notifications must I submit and when?

(a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8(e) and (f) and 63.9(b) through (h) that apply to you by the dates specified.

(b) As specified in § 63.9(b)(2), if you start up your affected source before December 19, 2003, you must submit your initial notification not later than April 19, 2004.

(c) As specified in § 63.9(b)(3), if you start up your new or reconstructed mercury recovery facility on or after December 19, 2003, you must submit your initial notification not later than 120 days after you become subject to this subpart.

(d) For each performance test that you are required to conduct for by-product hydrogen streams and end box ventilation system vents and for mercury thermal recovery unit vents, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required in § 7(b)(1).

(e) You must submit a Notification of Compliance Status according to paragraphs (e)(1) and (2) of this section.

(1) For each initial compliance demonstration that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th calendar day following the completion of the initial compliance demonstration. The Notification of Compliance Status must contain the items in paragraphs (e)(1)(i) through (iv) of this section:

(i) If you choose not to implement a cell room monitoring program according to § 63.8192(g), a certification that you are operating according to the applicable work practice standards in § 63.8192(a) through (d) and your floor-level mercury vapor measurement plan required by § 63.8192(d).

(ii) The washdown plan, and you must certify that you are operating according to the washdown plan specified in § 63.8192(f).

(iii) The mass of virgin mercury added to cells for the 5 years preceding the compliance date.

(iv) If you choose to implement a cell room monitoring program according to § 63.8192(g), your cell room monitoring plan.

(2) For each initial compliance demonstration that does include a performance test, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to § 63.10(d)(2). The Notification of Compliance Status must contain the information in § 63.9(h)(2)(ii)(A) through (G). The site-specific monitoring plan required in § 63.8242(a)(3) must also be submitted.

§ 63.8254 What reports must I submit and when?

(a) *Compliance report due dates.* You must submit a semiannual compliance report to your permitting authority according to the requirements in paragraphs (a)(1) through (4) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.8186 and ending on June 30 or December 31, whichever date comes first after the compliance date that is specified for your affected source in § 63.8186.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after your first compliance reporting period.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period.

(b) *Compliance report contents.* Each compliance report must contain the information in paragraphs (b)(1) through (3) of this section, and as applicable, paragraphs (b)(4) through (12) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a startup, shutdown or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in § 63.10(d)(5)(i).

(5) If there were no deviations from the continuous compliance requirements in § 63.8246 that apply to you, a statement that there were no deviations from the emission limitations, work practice standards, and operation and maintenance standards during the reporting period.

(6) If there were no periods during which the mercury continuous emission monitor or CPMS (if applicable) were out-of-control as specified in § 63.8(c)(7), a statement that there were no periods during the which the mercury continuous emissions monitor or CPMS (if applicable) were out-of-control during the reporting period.

(7) For each deviation from the requirements for work practice standards in Tables 1 through 4 to this subpart that occurs at an affected source (including deviations where the response intervals were not adhered to as described in § 63.8192(b)), the compliance report must contain the information in paragraphs (b)(1) through (4) of this section and the information in paragraphs (b)(7)(i) and (ii) of this section. This includes periods of startup, shutdown, and malfunction.

(i) The total operating time of each affected source during the reporting period.

(ii) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(8) For each deviation from an emission limitation occurring at an affected source where you are using a mercury continuous emission monitor, according to the site-specific monitoring plan required in § 63.8242(a)(3), to comply with the emission limitation in this subpart, you must include the information in paragraphs (b)(1) through (4) of this section and the information in paragraphs (b)(8)(i) through (xii) of this section. This includes periods of startup, shutdown, and malfunction.

(i) The date and time that each malfunction started and stopped.

(ii) The date and time of each instance in which a continuous monitoring system was inoperative, except for zero (low-level) and high-level checks.

(iii) The date, time, and duration of each instance in which a continuous monitoring system was out-of-control, including the information in § 63.8(c)(8).

(iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(v) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(vi) A breakdown of the total duration of the deviations during the reporting period including those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(vii) A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of monitoring system downtime as a percent of the total source operating time during the reporting period.

(viii) An identification of each hazardous air pollutant that was monitored at the affected source.

(ix) A brief description of the process units.

(x) A brief description of the continuous monitoring system.

(xi) The date of the latest continuous monitoring system certification or audit.

(xii) A description of any changes in monitoring system, processes, or controls since the last reporting period.

(9) For each deviation from an operation and maintenance standard occurring at an affected source where you are using the periodic monitoring option specified in § 63.8240(b) and your final control device is not a nonregenerable carbon adsorber, the compliance report must include the information in paragraphs (b)(1) through (4) of this section and the information in paragraphs (b)(9)(i) through (x) of this section. This includes periods of startups, shutdowns and malfunctions.

(i) The total operating time of each affected source during the reporting period.

(ii) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, whether the deviation occurred during a period of startup, shutdown, or malfunction, or other period, and the corrective action taken.

(iii) The date and time of each instance in which a CPMS was inoperative, except for zero (low-level) and high-level checks.

(iv) The date, time, and duration of each instance in which a CPMS was out-of-control, including the information specified in § 63.8(c)(8).

(v) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(vi) A breakdown of the total duration of the deviations during the reporting period including those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(vii) A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of monitoring system downtime as a percent of the total source operating time during the reporting period.

(viii) A brief description of the CPMS.

(ix) The date of the latest CPMS certification or audit.

(x) A description of any changes in monitoring system, processes, or controls since the last reporting period.

(10) The compliance report must contain the mass of virgin mercury added to cells for the reporting period.

(11) The compliance report must contain each instance in which corrective actions taken under § 63.8244(b)(2)(iv) did not result in average monitoring values being within range within 48 hours of the period that the monitoring value is out of range.

(12) The compliance report must contain each instance in which corrective action taken according to § 63.8244(b)(2)(v) did not result in the maximum hourly temperature being above the reference temperature during the first regeneration cycle following the period that the monitoring value was out of range.

(c) *Immediate startup, shutdown, and malfunction report.* If you took an action during a startup, shutdown, or malfunction during the semiannual reporting period that was not consistent with your startup, shutdown, and malfunction plan required in § 63.8226(b), and the source exceeded any applicable emission limitation in this subpart, you must submit an immediate startup, shutdown, and malfunction report according to the requirements in § 63.10(d)(5)(ii).

(d) *Title V monitoring report.* After your affected source has been issued a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71, you must report all deviations from permit requirements and provide reports of any required monitoring in your semiannual monitoring report as required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If you submit a

semiannual compliance report for an affected source as required by this subpart as part of the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the semiannual compliance report includes all information required by the 40 CFR part 70 or 40 CFR part 71 semiannual monitoring report for the deviations that are reported in the semiannual compliance report, submission of the semiannual compliance report satisfies your obligation to report the same deviation information in the semiannual monitoring report. However, in such situations, the semiannual monitoring report must cross-reference the semiannual compliance report, and submission of a semiannual compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements for an affected source to your permitting authority under 40 CFR part 70 or 40 CFR part 71.

§ 63.8256 What records must I keep?

(a) *General records.* You must keep the records in paragraphs (a)(1) and (2) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or Notification of Compliance Status that you submitted, according to the requirements in § 63.10(b)(2)(xiv).

(2) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(b) Records associated with the by-product hydrogen stream and end box ventilation system vent emission limitations and the mercury thermal recovery unit vent emission limitations. You must keep the records in paragraphs (b)(1) through (5) of this section related to the emission limitations in § 63.8190(a)(2) through (3) and (b).

(1) Records of performance tests as required in § 63.10(b)(2)(viii).

(2) Records of the mercury emissions monitoring conducted during the performance tests.

(3) Records of the continuous or periodic mercury emissions monitoring data.

(4) Records of the 52-week rolling average mercury emissions.

(5) Records associated with your site-specific monitoring plan required in § 63.8242(a)(3) (*i.e.*, results of inspections, calibrations, and validation checks of each mercury concentration continuous monitoring system (CMS)).

(6) Records of chlorine production on a weekly basis.

(c) Records associated with the work practice standards.

(1) If you choose not to institute a cell room monitoring program according to § 63.8192(g) of this subpart, you must keep the records specified in paragraphs (c)(1)(i) through (v) of this section.

(i) Records specified in Table 9 to this subpart related to the work practice standards in Tables 1 through 4 of this subpart.

(ii) Your current floor-level mercury vapor measurement plan.

(iii) Records of the average value calculated from at least three measurements taken according to your floor-level mercury vapor measurement plan.

(iv) Records indicated in § 63.8192(d)(4)(i) for maintenance activities that cause the floor-level mercury concentration to exceed the action level.

(v) Records of all inspections and corrective actions taken in response to a non-maintenance related situation in which the mercury vapor concentration exceeds the floor-level mercury concentration action level.

(2) You must maintain a copy of your current washdown plan and records of when each washdown occurs.

(3) You must maintain records of the mass of virgin mercury added to cells for each reporting period.

(4) If you choose to institute a cell room monitoring program according to § 63.8192(g) of this subpart, you must keep your current cell room monitoring plan and the records specified in paragraphs (c)(4)(i) through (v) of this section.

(i) Records of the monitoring conducted in accordance with § 63.8192(g)(2)(i) to establish your action level, and records demonstrating the development of this action level.

(ii) Records of the cell room mercury concentration monitoring data collected.

(iii) Instances when the action level is exceeded.

(iv) Records specified in § 63.8192(g)(4)(i) for maintenance activities that cause the mercury vapor concentration to exceed the action level.

(v) Records of all inspections and corrective actions taken in response to a non-maintenance related situation in which the mercury vapor concentration exceeds the action level.

(d) Records associated with the periodic monitoring option if your final control device is not a nonregenerable carbon adsorber. You must keep the records in paragraph (d)(1) through (3) of this section.

(1) Records of the CPMS data collected during the performance test as specified in § 63.8232(f)(1).

(2) Records documenting the development of the maximum monitoring value or minimum monitoring value, as appropriate, according to § 63.8232(f)(2).

(3) Records of hourly average values of applicable parameters monitored as specified in § 63.8244(b)(2)(ii) or (iii).

§ 63.8258 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious inspection and review, according to § 63.10(b)(1).

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records offsite for the remaining 3 years.

Other Requirements and Information

§ 63.8262 What parts of the General Provisions apply to me?

Table 10 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.13 apply to you.

§ 63.8264 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the United States Environmental Protection Agency (U.S. EPA), or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities in paragraphs (c)(1) through (4) of this section will not be delegated to State, local, or tribal agencies.

(1) Approval of alternatives under § 63.6(g) to the non-opacity emission limitations in § 63.8190 and work practice standards in § 63.8192.

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.8266 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in § 63.2, and in this section as follows:

Aqueous liquid means a liquid mixture in which water is the predominant component.

Brine means an aqueous solution of alkali metal chloride, as sodium chloride salt solution or potassium chloride salt solution, that is used in the electrolyzer as a raw material.

By-product hydrogen stream means the hydrogen gas from each decomposer that passes through the hydrogen system and is burned as fuel, transferred to another process as raw material, or discharged directly to the atmosphere.

Caustic means an aqueous solution of alkali metal hydroxide, as sodium hydroxide or potassium hydroxide, that is produced in the decomposer.

Caustic basket means a fixture adjacent to the decomposer that contains a serrated funnel over which the caustic from the decomposer passes, breaking into droplets such that electric current is interrupted.

Caustic system means all vessels, piping, and equipment that convey caustic and remove mercury from the caustic stream. The caustic system begins at the decomposer and ends after the primary filters.

Cell room means a building or other structure in which one or more mercury cells are located.

Continuous parameter monitoring system, or CPMS, means the total equipment that may be required to meet the data acquisition and availability requirements of this subpart, used to sample, condition (if applicable), analyze, and provide a record of process of control system parameters.

Control device means a piece of equipment (such as condensers, coolers, chillers, heat exchangers, mist eliminators, absorption units, and adsorption units) that removes mercury from gaseous streams.

Decomposer means the component of a mercury cell in which mercury amalgam and water react in bed of graphite packing (within a cylindrical vessel), producing caustic and hydrogen gas and returning mercury to its elemental form for re-use in the process.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limitation (including any operating limit) or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the title V operating permit for any affected source required to obtain such a permit;

(3) Fails to meet any emission limitation (including any operating limit) or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is allowed by this subpart; or

(4) Fails to take corrective actions within 48 hours that result in parameter monitoring values being within range.

Electrolyzer means the main component of the mercury cell that consists of an elongated, shallow steel trough that holds a layer of mercury as a flowing cathode. The electrolyzer is enclosed by side panels and a top that suspends metal anodes. In the electrolyzer, brine is fed between a flowing mercury cathode and metal anodes in the presence of electricity to produce chlorine gas and an alkali metal-mercury amalgam (mercury amalgam).

Emission limitation means any emission limit or operating limit.

End box means a component of a mercury cell for transferring materials between the electrolyzer and the decomposer. The inlet end box collects and combines raw materials at the inlet end of the cell, and the outlet end box separates and directs various materials either into the decomposer or out of the cell.

End box ventilation system means all vessels, piping, and equipment that evacuate the head space of each mercury cell end box (and possibly other vessels and equipment) to the atmosphere. The end box ventilation system begins at the end box (and other vessel or equipment which is being evacuated) and terminates at the end box ventilation system vent. The end box ventilation system includes all control devices.

End box ventilation system vent means the discharge point of the end box ventilation system to the atmosphere after all control devices.

Hydrogen leak means hydrogen gas (containing mercury vapor) that is escaping from the decomposer or hydrogen system.

Hydrogen system means all vessels, piping, and equipment that convey a by-product hydrogen stream. The hydrogen system begins at the decomposer and ends at the point just downstream of the last control device. The hydrogen system includes all control devices.

In liquid mercury service means containing or coming in contact with liquid mercury.

Liquid mercury accumulation means one or more liquid mercury droplets, or a pool of liquid mercury, present on the floor or other surface exposed to the atmosphere.

Liquid mercury leak means the liquid mercury that is dripping or otherwise escaping from process equipment.

Liquid mercury spill means a liquid mercury accumulation resulting from a liquid mercury that leaked from process equipment or that dripped during maintenance or handling.

Mercury cell means a device consisting of an electrolyzer and decomposer, with one or more end boxes, a mercury pump, and other components linking the electrolyzer and decomposer.

Mercury cell amalgam seal pot means a compartment through which mercury amalgam passes from an outlet end box to a decomposer.

Mercury cell chlor-alkali plant means all contiguous or adjoining property that is under common control, where mercury cells are used to manufacture product chlorine, product caustic, and by-product hydrogen and where mercury may be recovered from wastes.

Mercury cell chlor-alkali production facility means an affected source consisting of all cell rooms and ancillary operations used in the manufacture of product chlorine, product caustic, and by-product hydrogen at a mercury cell chlor-alkali plant.

Mercury concentration CMS, or mercury concentration continuous monitoring system, means a CMS, as defined in § 63.2, that continuously measures the concentration of mercury.

Mercury-containing wastes means waste materials containing mercury, which are typically classified under Resource Conservation and Recovery Act (RCRA) solid waste designations. K071 wastes are sludges from the brine system. K106 are wastewater treatment sludges. D009 wastes are non-specific mercury-containing wastes, further classified as either debris or nondebris (*i.e.*, cell room sludges and carbon from decomposes).

Mercury pump means a component of a mercury cell for conveying elemental mercury re-created in the decomposer to

the beginning of the mercury cell. A mercury pump is typically found either as an in-line mercury pump (near a mercury suction pot or mercury seal pot) or submerged mercury pump (within a mercury pump tank or mercury pump seal).

Mercury recovery facility means an affected source consisting of all processes and associated operations needed for mercury recovery from wastes at a mercury cell chlor-alkali plant.

Mercury thermal recovery unit means the retort(s) where mercury-containing wastes are heated to volatilize mercury and the mercury recovery/control system (control devices and other equipment) where the retort off-gas is cooled, causing mercury to condense and liquid mercury to be recovered.

Mercury thermal recovery unit vent means the discharge point of the mercury thermal recovery unit to the atmosphere after all recovery/control devices. This term encompasses both oven type vents and non-oven type vents.

Mercury vacuum cleaner means a cleanup device used to draw a liquid mercury spill or accumulation (via suction pressure) into a closed compartment.

Non-oven type mercury thermal recovery unit vent means the discharge point to the atmosphere after all recovery/control devices of a mercury thermal recovery unit in which the retort is either a rotary kiln or single hearth retort.

Open-top container means any container that does not have a tight-fitting cover that keeps its contents from being exposed to the atmosphere.

Oven type mercury thermal recovery unit vent means the discharge point to the atmosphere after all recovery/control devices of a mercury thermal recovery unit in which each retort is a batch oven retort.

Responsible official means responsible official as defined in 40 CFR 70.2.

Retort means a furnace where mercury-containing wastes are heated to drive mercury into the gas phase. The types of retorts used as part of mercury thermal recovery units at mercury cell chlor-alkali plants include batch oven retorts, rotary kilns, and single hearth retorts.

Spalling means fragmentation by chipping.

Sump means a large reservoir or pit for wastewaters (primarily washdown waters).

Trench means a narrow channel or depression built into the length of a cell room floor that leads washdown materials to a drain.

Vent hose means a connection for transporting gases from the mercury cell.

Virgin mercury means mercury that has not been processed in an onsite mercury thermal recovery unit or otherwise recovered from mercury-containing wastes onsite.

Washdown means the act of rinsing a floor or surface with a stream of aqueous liquid to cleanse it of a liquid mercury spill or accumulation, generally by driving it into a trench.

Week means any consecutive seven-day period.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

Tables to Subpart IIIII of Part 63

TABLE 1 TO SUBPART IIIII OF PART 63.—WORK PRACTICE STANDARDS—DESIGN, OPERATION, AND MAINTENANCE REQUIREMENTS

[As stated in §63.8192, you must meet the work practice standards in the following table]

For * * *	You must * * *
1. Cell rooms	a. For new or modified cell rooms, construct each cell room interior using materials that are resistant to absorption of mercury, resistant to corrosion, facilitate the detection of liquid mercury spills or accumulations, and are easy to clean.
	b. Limit access around and beneath mercury cells in each cell room to prevent liquid mercury from being tracked into other areas.
	c. Provide adequate lighting in each cell room to facilitate the detection of liquid mercury spills or accumulations.
	d. Minimize the number of items stored around and beneath cells in each cell room.
2. Mercury cells and electrolyzers	a. Operate and maintain each electrolyzer, decomposer, end box, and mercury pump to minimize leakage of mercury.
	b. Prior to opening an electrolyzer for maintenance, do the following: (1) Complete work that can be done before opening the electrolyzer in order to minimize the time required to complete maintenance when the electrolyzer is open; (2) fill the electrolyzer with an aqueous liquid, when possible; (3) allow the electrolyzer to cool before opening; and (4) schedule and staff maintenance of the electrolyzer to minimize the time the electrolyzer is open.
	c. When the electrolyzer top is raised and before moving the top and anodes, thoroughly flush all visible mercury from the top and the anodes with an aqueous liquid, when possible.
	d. While an electrolyzer is open, keep the bottom covered with an aqueous liquid or maintain a continuous flow of aqueous liquid, when possible.
	e. During an electrolyzer side panel change, take measures to ensure an aqueous liquid covers or flows over the bottom, when possible.
	f. Each time an electrolyzer is opened, inspect and replace components, as appropriate.
	g. If you step into an electrolyzer bottom, either remove all visible mercury from your footwear or replace them immediately after stepping out of the electrolyzer.
	h. If an electrolyzer is disassembled for overhaul maintenance or for any other reason, chemically clean the bed plate or thoroughly flush it with an aqueous liquid.
	i. Before transporting each electrolyzer part to another work area, remove all visible mercury from the part or contain the part to prevent mercury from dripping during transport.
	j. After completing maintenance on an electrolyzer, check any mercury piping flanges that were opened for liquid mercury leaks.
	k. If a liquid mercury spill occurs during any maintenance activity on an electrolyzer, clean it up in accordance with the requirements in Table 3 to this subpart.

TABLE 1 TO SUBPART IIIII OF PART 63.—WORK PRACTICE STANDARDS—DESIGN, OPERATION, AND MAINTENANCE REQUIREMENTS—Continued

[As stated in § 63.8192, you must meet the work practice standards in the following table]

For * * *	You must * * *
3. Vessels in liquid mercury service	If you replace a vessel containing mercury that is intended to trap and collect mercury after December 19, 2003, replace it with a vessel that has a cone shaped bottom with a drain valve or other design that readily facilitates mercury collection.
4. Piping and process lines in liquid mercury service.	a. To prevent mercury buildup after December 19, 2003, equip each new process line and piping system with smooth interiors and adequate low point drains or mercury knock-out pots to avoid liquid mercury buildup within the pipe and to facilitate mercury collection and recovery.
5. Cell room floors	a. Maintain a coating on cell room floors that is resistant to absorption of mercury and that facilitates the detection of liquid mercury spills or accumulations. b. Maintain cell room floors such that they are smooth and free of cracking and spalling. c. Maintain the cell room floor to prevent mercury accumulation in the corners. d. Maintain a layer of aqueous liquid on liquid mercury contained in trenches or drains and replenish the aqueous layer at least once per day. e. Keep the cell room floor clean and free of debris. f. If you step into a liquid mercury spill or accumulation, either remove all visible mercury from your footwear or replace your footwear immediately.
6. End boxes	a. Either equip each end box with a fixed cover that is leak tight, or route the end box head space to an end box ventilation system. b. For each end box ventilation system: maintain a flowof aqueous liquid over the liquid mercury in the end box and maintain the temperature of the aqueous liquid below its boiling point, maintain a negative pressure in the end box ventilation system, and maintain the end box ventilation system in good condition. c. Maintain each end box cover in good condition and keep the end box closed when the cell is in service and when liquid mercury is flowing down the cell, except when operation or maintenance activities require short-term access. d. Keep all bolts and C-clamps used to hold the covers in place when the cell is in service and when liquid mercury is flowing down the cell. e. Maintain each access port stopper in an end box cover in good sealing condition and keep each end box access port closed when the cell is in service and when liquid mercury is flowing down the cell.
7. Decomposers	a. Maintain each decomposer cover in good condition and keep each decomposer closed and sealed, except when maintenance activities require the cover to be removed. b. Maintain connections between the decomposer and the corresponding cell components, hydrogen system piping, and caustic system piping in good condition and keep the connections closed/tight, except when maintenance activities require opening/loosening these connections. c. Keep each mercury cell amalgam seal pot closed and sealed, except when operation or maintenance activities require short-term access. d. Prior to opening a decomposer, do the following: fill the decomposer with an aqueous liquid or drain the decomposer liquid mercury into a container that meets requirements in Table 1, Item 9 or 10, allow the decomposer to cool before opening, and complete work that can be done before opening the decomposer. e. Take precautions to avoid mercury spills when changing graphite grids or balls in horizontal decomposers or graphite packing in vertical decomposers. If a spill occurs, you must clean it up in accordance with the requirements in Table 3 to this subpart. f. After each maintenance activity, use an appropriate technique (Table 6 to this subpart) to check for hydrogen leaks. g. Before transporting any internal part from the decomposer (such as the graphite basket) to another work area, remove all visible mercury from the part or contain the part to prevent mercury from dripping during transport. h. Store carbon from decomposers in accordance with the requirements in 40 CFR part 265, subparts I and CC, until the carbon is treated or is disposed.
8. Submerged mercury pumps	a. Provide a vapor outlet connection from each submerged pump to an end box ventilation system. The connection must be maintained under negative pressure. b. Keep each mercury pump tank closed, except when maintenance or operation activities require the cover to be removed. c. Maintain a flow of aqueous liquid over the liquid mercury in each mercury pump tank and maintain the aqueous liquid at a temperature below its boiling point.
9. Open-top containers holding liquid mercury.	Maintain a layer of aqueous liquid over liquid mercury in each open-top container. Replenish the aqueous layer at least once per day and, when necessitated by operating procedures or observation, collect the liquid mercury from the container in accordance with the requirements in Table 4 to this subpart.
10. Closed containers used to store liquid mercury.	a. Store liquid mercury in containers with tight fitting covers. b. Maintain the seals on the covers in good condition. c. Keep each container securely closed when mercury is not being added to, or removed from, the container.
11. Caustic systems	a. Maintain the seal between each caustic basket cover and caustic basket by using gaskets and other appropriate material. b. Do not allow solids and liquids collected from back-flushing primary caustic filters to contact floors or run into open trenches. c. Collect solids and liquids from back-flushing each primary caustic filter and collect these mercury-containing wastes in process vessels or in accordance with the requirements in 40 CFR part 265, subparts I and CC.

TABLE 1 TO SUBPART IIIII OF PART 63.—WORK PRACTICE STANDARDS—DESIGN, OPERATION, AND MAINTENANCE REQUIREMENTS—Continued

[As stated in §63.8192, you must meet the work practice standards in the following table]

For * * *	You must * * *
12. Hydrogen systems	d. Keep each caustic basket closed and sealed, except when operation or maintenance activities require short term access. a. Collect drips from each hydrogen seal pot and compressor seal in containers meeting the requirements in this table for open containers. These drips should not be allowed to run on the floor or in open trenches. b. Minimize purging of hydrogen from a decomposer into the cell room by either sweeping the decomposer with an inert gas or by routing the hydrogen to the hydrogen system. c. Maintain hydrogen piping gaskets in good condition. d. After any maintenance activities, use an appropriatetechnique (Table 6 to this subpart) to check all hydrogen piping flanges that were opened for hydrogen leaks.

TABLE 2 TO SUBPART IIIII OF PART 63.—WORK PRACTICE STANDARDS—REQUIRED INSPECTIONS

[As stated in §63.8192, you must meet the work practice standards in the following table]

You must inspect * . *	At least once each * * *	And if you find * * *	You must * * *
1. Each vent hose on each mercury cell	Half day	A leaking vent hose	Take action immediately to correct the leak.
2. Each open-top container holding liquid mercury.	Half day	Liquid mercury that is not covered by an aqueous liquid.	Take action immediately to cover the liquid mercury with an aqueous liquid.
3. Each end box	Half day	a. An end box cover not securely in place.	Take action immediately to put the end box cover securely in place.
		b. An end box stopper not securely in place.	Take action immediately to put the end box stopper securely in place.
		c. Liquid mercury in an end box that is not covered by an aqueous liquid at a temperature below boiling.	Take action immediately to cover the liquid mercury with an aqueous liquid.
4. Each mercury amalgam seal pot	Half day	A seal pot cover that is not securely in place.	Take action immediately to put the seal pot cover securely in place.
5. Each mercury seal pot	Half day	A mercury seal pot stopper not securely in place.	Take action immediately to put the mercury seal pot stopper securely in place.
6. Cell room floors	Month	Cracks, spalling, or other deficiencies that could cause liquid mercury to become trapped.	Repair the crack, spalling, or other deficiency within 1 month from the time you identify the deficiency.
7. Pillars and beams	6 months	Cracks, spalling, or other deficiencies that could cause liquid mercury to become trapped.	Repair the crack, spalling, or other deficiency within 1 month from the time you identify the deficiency.
8. Each caustic basket	Half day	A caustic basket cover that is not securely in place.	Take action immediately to put the caustic basket cover securely in place.
9. All equipment and piping in the caustic system.	Day	Equipment that is leaking caustic	Initiate repair of the leaking equipment within 72 hours from the time that you identify the caustic leak.
10. All floors and other surfaces where liquid mercury could accumulate in cell rooms and other production facilities and in mercury recovery facilities.	Half day	A liquid mercury spill or accumulation	Take the required action specified in Table 3 to this subpart.
11. Each electrolyzer bottom, electrolyzer side panel, end box, mercury amalgam seal pot, decomposer, mercury pump, and hydrogen cooler, and all other vessels, piping, and equipment in liquid mercury service in the cell room.	Day	Equipment that is leaking liquid mercury	Take the required action specified in Table 3 to this subpart.
12. Each decomposer and all hydrogen piping up to the hydrogen header.	Half day	Equipment that is leaking hydrogen and/or mercury vapor.	Take the required action specified in Table 3 to this subpart.
13. All equipment in the hydrogen system from the start of the header to the last control device.	3 months	Equipment that is leaking hydrogen and/or mercury vapor.	Take the required action specified in Table 3 to this subpart.

TABLE 3 TO SUBPART IIIII OF PART 63.—WORK PRACTICE STANDARDS—REQUIRED ACTIONS FOR LIQUID MERCURY SPILLS AND ACCUMULATIONS AND HYDROGEN AND MERCURY VAPOR LEAKS

[As stated in § 63.8192, you must meet the work practice standards in the following table]

During a required inspection or at any other time, if you find * * *	You must * * *
1. A liquid mercury spill or accumulation	a. Initiate clean up of the liquid mercury spill or accumulation as soon as possible, but no later than 1 hour from the time you detect it. b. Clean up liquid mercury using a mercury vacuum cleaner or by using an alternative method. If you use an alternative method to clean up liquid mercury, you must submit a description of the method to the Administrator in your Notification of Compliance Status report. c. If you use a mercury vacuum cleaner, the vacuum cleaner must be designed to prevent generation of airborne mercury; you must cap the ends of hoses after each use; and after vacuuming, you must wash down the area. d. Inspect all equipment in liquid mercury service in the surrounding area to identify the source of the liquid mercury within 1 hour from the time you detect the liquid mercury spill or accumulation. e. If you identify leaking equipment as the source of the spill or accumulation, contain the dripping mercury, stop the leak, and repair the leaking equipment as specified below. f. If you cannot identify the source of the liquid mercury spill or accumulation, re-inspect the area within 6 hours of the time you detected the liquid mercury spill or accumulation, or within 6 hours of the last inspection of the area.
2. Equipment that is leaking liquid mercury	a. Contain the liquid mercury dripping from the leaking equipment by placing a container under the leak within 30 minutes from the time you identify the liquid mercury leak. b. The container must meet the requirement for open-top containers in Table 1 to this subpart. c. Make a first attempt at stopping the leak within 1 hour from the time you identify the liquid mercury leak. d. Stop the leak and repair the leaking equipment within 4 hours from the time you identify the liquid mercury leak. e. You can delay repair of equipment leaking liquid mercury if you either isolate the leaking equipment from the process so that it does not remain in mercury service; or determine that you cannot repair the leaking equipment without taking the cell off line, provided that you contain the dripping mercury at all times as described above, and take the cell off line as soon as practicable, but no later than 48 hours from the time you identify the leaking equipment. You cannot place the cell back into service until the leaking equipment is repaired.
3. A decomposer or hydrogen system piping up to the hydrogen header that is leaking hydrogen and/or mercury vapor.	a. Make a first attempt at stopping the leak within 1 hour from the time you identify the hydrogen and/or mercury vapor leak. b. Stop the leak and repair the leaking equipment within 4 hours from the time you identify the hydrogen and/or mercury vapor leak. c. You can delay repair of a equipment leaking hydrogen and/or mercury vapor if you isolate the leaking equipment or take the cell off line until you repair the leaking equipment.
4. Equipment in the hydrogen system, from the start of the hydrogen header to the last control device, that is leaking hydrogen and/or mercury vapor.	a. Make a first attempt at stopping the leak within 4 hours from the time you identify the hydrogen and/or mercury vapor leak. b. Stop the leak and repair the header within 24 hours from the time you identify the hydrogen and/or mercury vapor leak. c. You can delay repair of equipment leaking hydrogen and/or mercury vapor if you isolate the leaking equipment.

TABLE 4 TO SUBPART IIIII OF PART 63.—WORK PRACTICE STANDARDS—REQUIREMENTS FOR MERCURY LIQUID COLLECTION

[As stated in § 63.8192, you must meet the work practice standards in the following table]

You must collect liquid mercury from * * *	At the following intervals	When collecting the mercury, you must meet these requirements		
1. Open-top containers	a. At least once each 72 hours.	i. If you spill liquid mercury during collection or transport, you must take the action specified in Table 3 to this subpart for liquid mercury spills and accumulations.	ii. From the time that you collect liquid mercury into a temporary container until the time that you store the liquid mercury, you must keep it covered by an aqueous liquid.	iii. Within 4 hours from the time you' collect the liquid mercury, you must transfer it from each temporary container to a storage container that meets the specifications in Table 1 to this subpart.
2. Vessels, low point drains, mercury knockout pots, and other closed mercury collection points.	a. At least once each week.	See 1.a.i through iii above.		

TABLE 4 TO SUBPART IIIII OF PART 63.—WORK PRACTICE STANDARDS—REQUIREMENTS FOR MERCURY LIQUID COLLECTION—Continued

[As stated in § 63.8192, you must meet the work practice standards in the following table]

3. All other equipment	a. Whenever maintenance activities require the opening of the equipment.	See 1.a.i. through iii above.

TABLE 5 TO SUBPART IIIII.—REQUIRED ELEMENTS OF FLOOR-LEVEL MERCURY VAPOR MEASUREMENT AND CELL ROOM MONITORING PLANS

[Your Floor-Level Mercury Vapor Measurement Plan required by § 63.8192(d) and Cell Room Monitoring Plan required by § 63.8192(g) must contain the elements listed in the following table]

You must specify in your plan * * *	Additional requirements
Floor-Level Mercury Vapor Measurement Plan	
1. Locations in the cell room where you will measure the level of mercury vapor.	The locations must be representative of the entire cell room floor area. At a minimum you must measure the level of mercury vapor above mercury-containing cell room equipment, as well as areas around the cells, decomposes, or other mercury-containing equipment.
2. Equipment or sampling and analytical methods that you will use to measure the level of mercury vapor.	If an instrument or other equipment is used, the plan must include manufacturer specifications and calibration procedures. The plan must also include a description of how you will ensure that the instrument will be calibrated and maintained according to manufacturer specifications.
3. Measurement frequency	Measurements must take place at least once each half day.
4. Number of measurements	At least three readings must be taken at each sample location and the average of these readings must be recorded.
5. A floor-level mercury concentration action level	The action level may not be higher than 0.05 mg/m^3.
Cell Room Monitoring Plan	
1. Details of your mercury monitoring system.	
2. How representative sampling will be conducted	Include some pre-plan measurements to demonstrate the profile of mercury concentration in the cell room and how the selected sampling locations ensure conducted representativeness.
3. Quality assurance/quality control procedures for your mercury monitoring system.	Include a description of how you will keep records or other means to demonstrate that the system is operating properly.
4. Your action level	Include the background data used to establish your level.

TABLE 6 TO SUBPART IIIII OF PART 63.—EXAMPLES OF TECHNIQUES FOR EQUIPMENT PROBLEM IDENTIFICATION, LEAK DETECTION AND MERCURY VAPOR MEASUREMENTS

[As stated in Tables 1 and 2 of Subpart IIIII, examples of techniques for equipment problem identification, leak detection and mercury vapor measurements can be found in the following table]

To detect * * *	You could use * * *	Principle of detection * * *
1. Leaking vent hoses; liquid mercury that is not covered by an aqueous liquid in open-top containers or end boxes; end box covers or stoppers, amalgam seal pot stoppers, or caustic basket covers not securely in place; cracks or spalling in cell room floors, pillars, or beams; caustic leaks; liquid mercury accumulations or spills; and equipment that is leaking liquid mercury.	Visual inspections	
2. Equipment that is leaking hydrogen and/or mercury vapor during inspections required by Table 2 to this subpart.	a. Auditory and visual inspections	
	b. Portable mercury vapor analyzer—ultraviolet light absorption detector.	A sample of gas is drawn through a detection cell where ultraviolet light at 253.7 nanometers (nm) is directed perpendicularly through the sample toward a photodetector. Elemental mercury absorbs the incident light in proportion to its concentration in the air stream.
	c. Portable mercury vapor analyzer—gold film amalgamation detector.	A sample of gas is drawn through a detection cell containing a gold film detector. Elemental mercury amalgamates with the gold film, changing the resistance of the detector in proportion to the mercury concentration in the air sample.

TABLE 6 TO SUBPART IIIII OF PART 63.—EXAMPLES OF TECHNIQUES FOR EQUIPMENT PROBLEM IDENTIFICATION, LEAK DETECTION AND MERCURY VAPOR MEASUREMENTS—Continued

[As stated in Tables 1 and 2 of Subpart IIIII, examples of techniques for equipment problem identification, leak detection and mercury vapor measurements can be found in the following table]

To detect * * *	You could use * * *	Principle of detection * * *
	d. Portable short-wave ultraviolet light, fluorescent background—visual indication.	Ultraviolet light is directed toward a fluorescent background positioned behind a suspected source of mercury emissions. Elemental mercury vapor absorbs the ultraviolet light, projecting a dark shadow image on the fluorescent background.
	e. Portable combustible gas meter.	
3. Level of mercury vapor in the cell room and other areas.	a. Portable mercury vapor analyzer—ultraviolet light absorption detector.	See Item 2.b.
	b. Portable mercury vapor analyzer—gold film amalgamation detector.	See Item 2.c.
	c. Permanganate impingement	A known volume of gas sample is absorbed in potassium permanganate solution. Elemental mercury in the solution is determined using a cold vapor adsorption analyzer, and the concentration of mercury in the gas sample is calculated.

TABLE 7 TO SUBPART IIIII OF PART 63.—REQUIRED ELEMENTS OF WASHDOWN PLANS

[As stated in §63.8192, your written washdown plan must address the elements contained in the following table]

For each of the following areas * * *	You must establish the following as part of your plan * * *
1. Center aisles of cell rooms	A description of the manner of washdown of the area, and the washdown frequency for the area.
2. Electrolyzers	
3. End boxes and areas under end boxes	
4. Decomposers and areas under decomposers	
5. Caustic baskets and areas around caustic baskets	
6. Hydrogen system piping	
7. Basement floor of cell rooms	
8. Tanks	
9. Pillars and beams in cell rooms	
10. Mercury cell repair areas	
11. Maintenance shop areas	
12. Work tables	
13. Mercury thermal recovery units	
14. Storage areas for mercury-containing wastes	

TABLE 8 TO SUBPART IIIII OF PART 63.—REQUIREMENTS FOR CELL ROOM MONITORING PROGRAM

[As stated in §63.8192(g)(1), your mercury monitoring system must meet the requirements contained in the following table]

If you utilize an * * *	Your * * *	Must * * *
1. Extractive cold vapor spectroscopy system ..	a. Mercury vapor analyzer	Be capable of continuously monitoring the elemental mercury concentration with a detection level at least two times lower than the baseline mercury concentration in the cell room.
	b. Sampling system	Obtain measurements at three or more locations along the center aisle of the cell room at a height sufficient to ensure that sample is representative of the entire cell room. One sampling location must be above the midpoint of the center aisle, and the other two an equidistance between the midpoint and the end of the cells.
2. Open path differential optical absorption spectroscopy system.	a. Mercury vapor analyzer	Be capable of continuously monitoring the elemental mercury concentration with a detection level at least two times lower than the baseline mercury concentration in the cell room.
	b. Path	Be directed along the center aisle at a height sufficient to ensure that the sample is representative of the entire cell room.

TABLE 9 TO SUBPART IIIII OF PART 63.—REQUIRED RECORDS FOR WORK PRACTICE STANDARDS

[As stated in § 63.8256(c), you must keep the records (related to the work practice standards) specified in the following table]

For each * * *	You must record the following information * * *
1. Inspection required by Table 2 to this subpart	Date and time the inspection was conducted.
2. Situation found during an inspection required by Table 2 to this subpart: leaking vent hose; open-top container where liquid mercury is not covered by an aqueous liquid; end box cover that is not securely in place; end box stopper that is not securely in place; end box where liquid mercury is not covered by an aqueous liquid at a temperature below boiling; seal pot cover that is not securely in place; open or mercury seal pot stopper that is not securely in place; crack, spalling, or other deficiency in a cell room floor, pillar, or beam that could cause liquid mercury to become trapped; or caustic basket that is not securely in place.	a. Description of the condition. b. Location of the condition. c. Date and time you identify the condition. d. Description of the corrective action taken. e. Date and time you successfully complete the corrective action.
3. Caustic leak during an inspection required by Table 2 to this subpart	a. Location of the leak. b. Date and time you identify the leak. c. Date and time you successfully stop the leak and repair the leaking equipment.
4. Liquid mercury spill or accumulation identified during an inspection required by Table 2 to this subpart or at any other time.	a. Location of the liquid mercury spill or accumulation. b. Estimate of the weight of liquid mercury. c. Date and time you detect the liquid mercury spill or accumulation. d. Method you use to clean up the liquid mercury spill or accumulation. e. Date and time when you clean up the liquid mercury spill or accumulation. f. Source of the liquid mercury spill or accumulation. g. If the source of the liquid mercury spill or accumulation is not identified, the time when you reinspect the area.
5. Liquid mercury leak or hydrogen leak identified during an inspection required by Table 2 to this subpart or at any other time.	a. Location of the leak. b. Date and time you identify the leak. c. If the leak is a liquid mercury leak, the date and time that you successfully contain the dripping liquid mercury. d. Date and time you first attempt to stop the leak. e. Date and time you successfully stop the leak and repair the leaking equipment. f. If you take a cell off line or isolate the leaking equipment, the date and time you take the cell off line or isolate the leaking equipment, and the date and time you put the cell or isolated equipment back into service.
6. Occasion for which it is not possible to perform the design, operation and maintenance procedures required by Item 2 of Table 1 to this subpart.	a. Reason for not being able to perform each procedure determined to be not possible. b. Actions taken to reduce or prevent mercury emissions, in lieu of the requirements in Table 1 to this subpart.

TABLE 10 TO SUBPART IIIII OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART IIIII

[As stated in § 63.8262, you must comply with the applicable General Provisions requirements according to the following table]

Citation	Subject	Applies to Subpart IIIII	Explanation
§ 63.1	Applicability	Yes.	
§ 63.2	Definitions	Yes.	
§ 63.3	Units and Abbreviations	Yes.	
§ 63.4	Prohibited Activities	Yes.	
§ 63.5	Construction/Reconstruction	Yes.	
§ 63.6(a)–(g), (i), (j)	Compliance with Standards and Maintenance Requirements.	Yes.	
§ 63.6(h)	Compliance with Opacity and Visible Emission Standards.	No	Subpart IIIII does not have opacity and visible emission standards.
§ 63.7(a)(1), (b)–(h)	Performance Testing Requirements.	Yes	Subpart IIIII specifies additional requirements related to site-specific test plans and the conduct of performance tests.
§ 63.7(a)(2)	Applicability and Performance Test Dates.	No	Subpart IIIII requires the performance test to be performed on the compliance date.
§ 63.8(a)(1), (a)(3); (b); (c)(1)–(4), (6)–(8); (d); (e); and (f)(1)–(5).	Monitoring Requirements	Yes.	
§ 63.8(a)(2)	Continuous Monitoring System (CMS) Requirements.	No	Subpart IIIII requires a site-specific monitoring plan in lieu of a promulgated performance specification for a mercury concentration CMS.

TABLE 10 TO SUBPART IIIII OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART IIIII—Continued

[As stated in § 63.8262, you must comply with the applicable General Provisions requirements according to the following table]

Citation	Subject	Applies to Subpart IIIII	Explanation
§ 63.8(a)(4)	Additional Monitoring Requirements for Control Devices in § 63.11.	No	Subpart IIIII does not require flares.
§ 63.8(c)(5)	COMS Minimum Procedures	No	Subpart IIIII does not have opacity and visible emission standards.
§ 63.8(f)(6)	Alternative to Relative Accuracy Test.	No	Subpart IIIII does not require CEMS.
§ 63.8(g)	Data Reduction	No	Subpart IIIII specifies mercury concentration CMS data reduction requirements.
§ 63.9(a)–(e), (g)–(j)	Notification Requirements	Yes.	
§ 63.9(f)	Notification of VE/Opacity Test	No	Subpart IIIII does not have opacity and visible emission standards.
§ 63.10(a); (b)(1); (b)(2)(i)–(xii), (xiv); (b)(3); (c);(d)(1)–(2), (4)–(5); (e); (f).	Recordkeeping/Reporting	Yes.	
§ 63.10(b)(2)(xiii)	CMS Records for RATA Alternative.	No	Subpart IIIII does not require CEMS.
§ 63.10(d)(3)	Reporting Opacity or VE Observations.	No	Subpart IIIII does not have opacity and visible emission standards.
§ 63.11	Flares	No	Subpart IIIII does not require flares.
§ 63.12	Delegation	Yes.	
§ 63.13	Addresses	Yes.	
§ 63.14	Incorporation by Reference	Yes.	
§ 63.15	Availability of Information	Yes.	

[FR Doc. 03–22926 Filed 12–18–03; 8:45 am]

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December 19, 2003

Part III

Environmental Protection Agency

40 CFR Part 63

National Emission Standards for Hazardous Air Pollutants: Chlorine and Hydrochloric Acid Emissions from Chlorine Production; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[OAR–2002–0016, FRL–7554–6]

RIN 2060–AK38

National Emission Standards for Hazardous Air Pollutants: Chlorine and Hydrochloric Acid Emissions From Chlorine Production

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final decision to delete subcategory.

SUMMARY: This final action deletes the subcategory of sources that do not utilize mercury cells to produce chlorine and caustic. We have determined that this non-mercury cell chlorine production subcategory should be deleted because chlorine and hydrochloric acid (HCl), the only hazardous air pollutants (HAP) emitted, are not carcinogenic, have well-defined health thresholds, and chlorine and HCl air emissions from each non-mercury cell chlorine subcategory source do not exceed a level which is adequate to protect public health with an ample margin of safety. In addition, the emissions of chlorine and HCl will not result in any adverse environmental effects. This final action does not address chlorine and HCl emissions from mercury cell chlor-alkali plants. The final rulemaking for the mercury cell chlor-alkali plant subcategory is contained elsewhere in this issue of the **Federal Register**.

EFFECTIVE DATE: December 19, 2003.

ADDRESSES: *Docket.* We have established an official public docket for this action under Docket ID No. OAR–2002–0016, A–2002–09, A–2000–32, and OAR–2002–0017 available for public viewing at the Office of Air and Radiation Docket and Information Center (Air Docket) in the EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Avenue, NW, Washington, DC. Docket No. A–2002–09 or OAR–2002–0016 contains supporting information used in developing the proposed and final action for the non-mercury cell subcategory of the chlorine production source category addressed in this action. The docket is available for public viewing at the Office of Air and Radiation Docket and Information Center (Air Docket) in the EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Avenue, NW, Washington, DC and may be inspected from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays.

FOR FURTHER INFORMATION CONTACT: Mr. Iliam Rosario, Metals Group, Emission Standards Division (C439–02), U.S. EPA, Research Triangle Park, North Carolina 27711, telephone number: (919) 541–5308, facsimile: (919) 541–5600, electronic mail address: rosario.iliam@epa.gov.

SUPPLEMENTARY INFORMATION:

Docket. The official public docket consists of the documents specifically referenced in this final action, any public comments received, and other information related to this final action. Although a part of the official docket, the public docket does not include Confidential Business Information or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742.

Electronic Docket Access. You may access this final action electronically through the EPA Internet under the "**Federal Register**" listings at *http://www.epa.gov/fedrgstr/.*

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility in the above paragraph entitled "Docket." Once in the system, select "search," then key in the appropriate docket identification number.

Judicial Review. Under CAA section 307(b), judicial review of the final action is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit on or before February 17, 2004. Only those objections to the final action which were raised with reasonable specificity during the period for public comment may be raised during judicial review.

Affected entities. Entities potentially affected by this action include facilities engaged in the production of chlorine using non-mercury cells, for example, diaphragm cells and membrane cells. Affected categories and entities include those sources listed in the primary Standard Industrial Classification code 2812 or North American Information Classification System code 325181.

This description is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by this final action. If you have questions regarding the applicability of this final action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

World Wide Web Information. In addition to being available in the docket, an electronic copy of today's final action will also be available through EPA's World Wide Web site. Following signature, a copy of this final action will be posted on our policy and guidance page for newly proposed or promulgated rules: *http://www.epa.gov/ttn/oarpg.* The web site provides information and technology exchange in various areas of air pollution control. If more information regarding the web site is needed, call our web site help line at (919) 541–5384.

Outline. The information presented in this preamble is organized as follows:

I. Background
  A. What Is the Source of Authority for This Final Action?
  B. What Is the Source Category?
  C. How Did the Public Participate in Developing This Final Action?
II. Summary of Final Action
III. Summary of Major Comments
  A. What Issues Were Raised Regarding the Statutory Authority for This Final Action?
  B. What Issues Were Raised Related to the Potential Overlap With the HCl Production NESHAP?
  C. What Issues Were Raised Regarding the Risk Assessment That Forms the Technical Basis for This Final Action?
IV. Statutory and Executive Order Reviews
  A. Executive Order 12866: Regulatory Planning and Review
  B. Paperwork Reduction Act
  C. Regulatory Flexibility Act
  D. Unfunded Mandates Reform Act
  E. Executive Order 13132: Federalism
  F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments
  G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks
  H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use
  I. National Technology Transfer Advancement Act
  J. Congressional Review Act

I. Background

A. What Are the Sources of Authority for This Final Action?

Section 112 of the Clean Air Act (CAA) contains our authorities for reducing emissions of HAP. Section 112(c)(1) of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish national emission standards for hazardous air pollutants (NESHAP) for the listed source categories and subcategories. Section 112(c)(9) of the CAA contains provisions that allow the deletion of source categories listed under CAA section 112(c)(1) provided that certain conditions are met. For chemicals that may result in cancer in humans, the condition is that no source in the category emit HAP in quantities that result in a lifetime cancer risk of greater than one in a million to the individual in the population who is most exposed. For chemicals that result in adverse health effects other than cancer or adverse environmental effects, the conditions are that no source in the category emit HAP that exceed a level "adequate to protect public health with an ample margin of safety" and that no source emit HAP in quantities to cause adverse environmental effects.

Section 112(d) of the CAA requires us to promulgate regulations establishing emission standards for each category or subcategory of major sources and area sources of HAP listed pursuant to CAA section 112(c). Section 112(d)(2) of the CAA specifies that emission standards promulgated under the section shall require the maximum degree of reductions in emissions of the HAP subject to CAA section 112 that are deemed achievable considering cost and any non-air quality health and environmental impacts and energy requirements.

Each of the NESHAP established reflects the maximum degree of reduction in emissions of HAP that is achievable. This level of control is commonly referred to as maximum achievable control technology (MACT).

The CAA includes exceptions to the general statutory requirement to establish emission standards based on MACT. For pollutants for which a threshold has been established, CAA section 112(d)(4) allows us ". . . to consider such threshold level, with an ample margin of safety, when establishing emissions standards. . . ."

B. What Is the Source Category?

The chlorine production source category was initially listed as a category of major sources of HAP pursuant to section 112(c)(1) of the CAA on July 16, 1992 (57 FR 31576). At the time of the initial listing, we defined the chlorine production source category as follows: "The Chlorine Production Source Category includes any facility engaged in the production of chlorine. The category includes, but is not limited to, facilities producing chlorine by the following production methods: diaphragm cell, mercury cell, membrane cell, hybrid fuel cell, Downs cell, potash manufacture, hydrochloric acid decomposition, nitrosyl chloride process, nitric acid/salt process, Kel-Chlor process, and sodium chloride/sulfuric acid process."

In our subsequent analysis of the chlorine production source category, we did not identify any facilities that produce chlorine using hybrid fuel cells, the nitrosyl chloride process, the Kel-Chlor process, the sodium chloride/sulfuric acid process, or as a by-product from potash manufacturing. The majority of the source category is made up of chlor-alkali plants that produce chlorine and caustic (sodium hydroxide) using mercury cells, diaphragm cells, or membrane cells. We also identified operating plants that produce chlorine as a by-product: one from the production of sodium metal in Down cells, another from the production of potassium nitrate fertilizer that uses the nitric acid/salt process, and a third that produces chlorine as a by-product from primary magnesium refining (magnesium refining is a separately listed source category, and is being addressed on its own in a separate rulemaking). In addition, at a site where a membrane cell process is located, we have identified a process that produces chlorine through the decomposition of HCl. Our analysis shows that the only HAP emitted from sources within the chlorine production source category are chlorine, HCl, and mercury, and mercury is only emitted from mercury cell chlor-alkali plants.

Because of the differences in the production methods and the HAP emitted, we decided to divide the chlorine production category into two subcategories: (1) Mercury cell chlor-alkali plants, and (2) chlorine production plants that do not rely upon mercury cells for chlorine production (diaphragm cell chlor-alkali plants, membrane cell chlor-alkali plants, etc). Thus, on July 3, 2002, we issued different proposals to address the emissions of mercury from the mercury cell chlorine production subcategory sources (67 FR 44672) and the emissions of chlorine and HCl from both the non-mercury cell chlorine production subcategory and the mercury cell chlorine production subcategory sources (67 FR 44713). This final action deletes the non-mercury cell chlorine production subcategory. Elsewhere in today's **Federal Register**, we are issuing a final rulemaking to regulate mercury emissions for mercury cell chlorine production subcategory sources to regulate mercury emissions, and we are utilizing our authority under CAA section 112(d)(4) not to regulate chlorine and HCl emissions from the mercury cell chlorine production source category.

In the non-mercury cell chlorine production subcategory, we identified 20 major source plant sites where diaphragm or membrane cell chlor-alkali chlorine production plants are located. None of the non-mercury cell chlorine production processes at these sites emit HAP greater than 10 tons per year (tpy) of one HAP or 25 tpy of all HAP (that is, they would not be major source if they were not collocated with other HAP emission sources), but the total emissions from the entire contiguous plant site make each a major source.

C. How Did the Public Participate in Developing This Final Action?

Prior to proposal, we met with industry representatives to discuss the data and information used to develop the proposed action. In addition, these and other potential stakeholders, including equipment vendors and environmental groups, had opportunity to comment on the proposed action.

The proposed action was published in the **Federal Register** on July 3, 2002 (67 FR 44713). The preamble to the proposed action discussed the availability of technical support documents, which described in detail the information gathered during the standards development process. Public comments were solicited at proposal.

We received eight public comment letters on the proposed action. The commenters represent the following affiliations: industry representatives, governmental entities, and environmental groups during the public comment. In the post-proposal period, we had discussions with commenters and other stakeholders to clarify comments and to assist in our analysis of the comments. Records of these contacts are found in Docket No. A–2002–09 or OAR–2002–0016.

II. Summary of Final Action

This final action deletes the subcategory of the Chlorine Production Source Category for facilities that do not utilize mercury cells to produce chlorine and caustic. This action is

being made under our authority in CAA section 112(c)(9)(B)(ii). This final action does not impact the other subcategory of the Chlorine Production Source Category: Mercury Cell Chlor-Alkali Plants. A final rulemaking addressing the Mercury Cell Chlor-alkali Plant subcategory is contained in a separate section of today's **Federal Register**.

III. Summary of Major Comments

On July 3, 2002 (67 FR 44713), we proposed not to regulate chlorine and HCl emissions from all chlorine production processes (mercury and non-mercury cell) under the authority of CAA section 112(d)(4). We based that decision on our determination that no further control is necessary because chlorine and HCl are health threshold pollutants, and chlorine and HCl levels emitted from chlorine production processes are below their threshold values within an ample margin of safety, and they do not result in adverse environmental effects.

For a complete summary of all the comments received on the proposed rule and our responses to them, refer to the "National Standards for Hazardous Air Pollutants: Chlorine and Hydrochloric Acid Emissions from Chlorine Production: Summary of Public Comments and Responses" in Docket No. A–2002–09 or OAR–2002–0016.

A. What Issues Were Raised Regarding the Statutory Authority for This Final Action?

Comment: Several comments were received related to our decision not to regulate chlorine and HCl emissions from chlorine production under the authority of CAA section 112(d)(4). Some commenters supported that decision and believed the interpretation of our authority under CAA section 112(d)(4) was appropriate. In contrast, other commenters disagreed with EPA's interpretation of CAA section 112(d)(4). Some of the commenters believed that EPA should use its authority under CAA section 112(c)(9)(B)(ii).

Several commenters supported the decision not to regulate chlorine and HCl emissions from chlorine production plants under the authority of CAA section 112(d)(4). One commenter stated that EPA conducted an appropriate analysis to determine that human exposures from ambient concentrations are well below threshold values with an ample margin of safety. According to another commenter, any further regulation of chlorine and HCl emissions from the chlorine production industry would have no environmental benefits, but would result in costs for monitoring, recordkeeping, and reporting efforts to certify compliance with any requirements. The commenter was concerned that a rulemaking would also stretch EPA's limited resources in monitoring for compliance. Three commenters stated that EPA's interpretation of their authority under CAA section 112(d)(4) was supported by the legislative history, which emphasizes that Congress included section 112(d)(4) in the CAA to prevent unnecessary regulation of source categories. The commenter agreed that under CAA section 112(d)(4), once EPA establishes that a pollutant has a health threshold and that exposure to that pollutant's emissions are below the health threshold, EPA should refrain from setting MACT standards for that pollutant. The commenter further suggested that EPA should use CAA section 112(d)(4) whenever setting emission standards under CAA section 112(d).

Three commenters disagreed with EPA's interpretation of CAA section 112(d)(4). They did not believe that CAA section 112(d)(4) could be used as an alternative to setting MACT standards under CAA section 112(d)(3). One commenter noted that the phrase "in lieu of" was not included in the CAA section 112(d)(4) provisions, and that its absence was intentional. In support of their claim, the commenter pointed to CAA section 112(d)(5), which does contain the phrase "in lieu of." The commenter interpreted CAA section 112(d)(4) to mean that health based thresholds can be considered when establishing the degree of MACT requirements, but not in place of the requirement to establish a MACT floor pursuant to CAA section 112(d)(3).

The commenter also pointed to the provisions of CAA section 112(c)(2) which require the Administrator to establish NESHAP for listed source categories and subcategories. The commenter was concerned that EPA evaluated emissions from chlorine production plants and concluded that since they do not pose a threat to human health and the environment, the Administrator is relieved of her responsibilities to establish a MACT standard. The commenter maintained that this position is not supported by CAA section 112(c)(2).

The commenter also referred to CAA section 112(d)(1) which states ". . . the Administrator shall promulgate regulations establishing emission standards for each category or subcategory of major sources and area sources of hazardous air pollutants listed for regulation pursuant to subsection (c) of this section. . . ." Thus, the commenter stated that EPA did not have the authority to "make a determination of no regulation for a listed source category or pollutant."

Finally, the commenter referred to CAA section 112(d)(3), which contains the MACT floor provisions. According to the commenter, the intent of the NESHAP program is to develop a MACT floor, and EPA is not fulfilling the requirements of the CAA by not performing such an analysis. The commenter stated that a majority of facilities identified in the analysis have adequate controls due to State regulations and these controls should be incorporated into the MACT floor evaluation. The commenter was particularly concerned that by not developing a MACT floor, no new source MACT standards were created. The commenter requested that EPA perform a MACT floor analysis, and develop a NESHAP for new sources.

Two commenters that stated that they believe that EPA should support their decision not to regulate the chlorine production source category by citing the provisions of CAA section 112(c)(9)(B)(ii) in addition to the provisions of CAA section 112(d)(4). The commenters stated that the evaluation performed by EPA would also be sufficient for deleting sources under CAA section 112(c)(9)(B)(ii), and that EPA's proposal to not regulate chlorine production is similar to deleting a subcategory of the chlorine production source category (*i.e.*, all chlorine production sources other than those using the mercury-cell chlor-alkali production process). Therefore, in addition to using the authority under CAA section 112(d)(4), the commenters suggested that EPA delete the subcategory using the authority under CAA section 112(c)(9)(B)(ii) to avoid any uncertainty over the use of its authority under CAA section 112(d)(4).

Response: The chlorine production source category was initially listed as a category of major sources of HAP pursuant to section 112(c)(1) of the CAA on July 16, 1992 (57 FR 31576). Our analysis shows that the only HAP emitted in significant quantities from sources within the chlorine production source category are chlorine, HCl, and mercury, and mercury is only emitted from mercury cell chlor-alkali plants. Because of the differences in the production methods and the HAP emitted, we decided to divide the chlorine production category into two subcategories: (1) mercury cell chlor-alkali plants, and (2) chlorine production plants that do not rely upon mercury cells for chlorine production (diaphragm cell chlor-alkali plants,

membrane cell chlor-alkali plants, etc). Thus, on July 3, 2002, we issued different proposals to address the emissions of mercury from the mercury cell chlorine production subcategory sources (67 FR 44672) and the emissions of chlorine and HCl from both the non-mercury cell chlorine production subcategory and the mercury cell chlorine production subcategory sources (67 FR 44713). While we are finalizing the NESHAP for the mercury cell chlor-alkali subcategory in a separate action in today's **Federal Register**, with certain modifications from the proposal (including our decision not to regulate chlorine and HCl emissions under the authority of CAA section 112(d)(4)), we have decided to delete the non-mercury cell chlorine production subcategory in accordance with CAA section 112(c)(9)(B)(ii).

We agree with those two commenters who suggested that exercising our authority under CAA section 112(c)(9)(B)(ii) is appropriate for this subcategory for a number of reasons. First, CAA section 112(c)(9)(B)(ii) permits the deletion of subcategories, and that is what is at issue here. We are not deleting the entire chlorine production category; neither are we deleting the mercury cell subcategory, the emissions from which and production methodology are different from those facilities that produce chlorine using diaphragm cells, membrane cells, and the various processes that produce chlorine as a by-product. Second, the only HAP emitted in significant quantities from the facilities in this subcategory are chlorine and HCl. Chlorine and HCl are not carcinogens (*http://www.epa.gov/iris/*). Third, as indicated in the proposal, both of these HAP are threshold pollutants. For the proposed action, we obtained chlorine and HCl emission estimates from every known major source facility in the non-mercury cell chlorine production subcategory using our authority under section 114 of the CAA and conducted risk assessments for each facility. We updated these assessments based on comments received. Our analysis showed both at the time of proposal and shows now that emissions of these HAP from every source in the non-mercury cell chlorine production subcategory do not exceed a level which is "adequate to protect public health with an ample margin of safety." Finally, our evaluation of environmental effects indicates that no adverse impacts will result from emissions from any source within the subcategory. Therefore, we agree with the commenters that our evaluation is sufficient for delisting the subcategory under CAA section 112(c)(9)(B)(ii), and that such action is justified as a logical outgrowth of public comments received on our proposed action.

We have reviewed in some detail the comments which have questioned our proposed use of CAA section 112(d)(4) to not establish NESHAP for chlorine and HCl emissions from facilities within the non-mercury cell chlorine production subcategory. We do not agree with these comments, and we are exercising our authority under CAA section 112(d)(4) to not regulate chlorine and HCl emissions from the mercury cell chlorine production source category. The NESHAP for the mercury cell chlorine subcategory is being promulgated in a separate action listed elsewhere in today's **Federal Register**. We have decided to delete the non-mercury cell chlorine production subcategory under CAA section 112(c)(9)(B)(ii) for the reasons stated above. We do not feel that we are obligated to exercise our authority under both CAA section 112(d)4) and CAA section 112(c)(9)(B)(ii) as suggested by the commenter. Therefore, today's final action is to delete the non-mercury cell chlorine production subcategory under CAA section 112(C)(9)(B)(ii).

Comment: Some commenters concluded that we did not establish either cancer or non-cancer thresholds for HCl and chlorine and, therefore, it is illegal for EPA to attempt to use CAA section 112(d)(4) to set standards.

Response: Section 112(d)(4) of the CAA states that, "With respect to pollutants for which a health threshold has been established, the Administrator may consider such threshold level, with an ample margin of safety, when establishing emission standards under this subsection." The threshold level refers to the level of concentration of a chemical under which no health effects are expected from exposure, although this term is not defined in CAA section 112. Further, CAA section 112 does not address the process that must be followed to establish a threshold level.

The Reference Concentration (RfC) is a long-term threshold, defined as an estimate of a daily inhalation exposure that, over a lifetime, would not likely result in the occurrence of noncancer health effects in humans. We have determined that the RfC for HCl of 20 microgram per cubic meter ($\mu g/m^3$) is an appropriate threshold value for assessing risk to humans associated with exposure to HCl through inhalation *http://www.epa.gov/iris/subst/0396.htm*).

In cases where we have not studied a chemical itself, we rely on the studies of other governmental agencies, such as the Agency for Toxic Substances and Disease Registry (ATSDR) or the Office of Health Hazard Assessment of California's Environmental Protection Agency (CAL EPA), for RfC values. The CAL EPA developed an RfC value of 0.2 $\mu g/m^3$ for chlorine based on a large inhalation study with rats.

Acute exposure guideline level (AEGL) toxicity values are estimates of adverse health effects due to a single exposure lasting eight hours or less. The confidence in the AEGL (a qualitative rating or either low, medium, or high) is based on the number of studies available and the quality of the data. Consensus toxicity values for effects of acute exposures have been developed by several different organizations, and we are beginning to develop such values. A national advisory committee organized by EPA has developed AEGL's for priority chemicals for 30-minute, 1-hour, 4-hour, and 8-hour airborne exposures. They have also determined the levels of these chemicals at each exposure duration that will protect against discomfort (AEGL1), serious effects (AEGL2), and life-threatening effects or death (AEGL3). Hydrogen chloride has been assigned AEGL values (65 FR 39264, June 23, 2000), including the 1-hour, AEGL1 of 2,700 $\mu g/m^3$ used in our revised analysis. Chlorine has also been assigned AEGL values (62 FR 58840), including the 1 hour AEGL1 of 1,500 $\mu g/m^3$ used in our revised analysis.

We maintain that the listing of health thresholds by EPA and other organizations in the public domain as discussed above has established health thresholds for HCl and chlorine. Further, we believe that the recognition of these levels by EPA, ATSDR, and CAL EPA indicates that chlorine and HCl are threshold pollutants.

Moreover, we provided the public an opportunity to comment on the thresholds for chlorine and HCl that we used in our original analysis for the proposed action. We used the same threshold level for HCl for both the proposed and final NESHAP for the pulp and paper mill category. (Although there is no mention of the HCl threshold in the final rule preamble for the pulp and paper mill NESHAP, we received no comment on the use of the threshold and used it in deciding not to set a limitation for HCl in the final NESHAP). We have also used the same threshold for HCl in the proposed NESHAP for lime production (67 FR 78046). There is no requirement in either CAA section 112(d)(4) or CAA section 112(c)(9)(B)(ii)

that EPA develop or finalize a threshold for a particular HAP in a certain manner. In fact, CAA section 112(c)(9)(B)(ii), the authority we are utilizing here, does not mention the term threshold (although the term is implied by the use of the phrase "a level which is adequate to protect public health with an ample margin of safety." The thresholds we have used for both HCl and chlorine are consistent with the statutory language in CAA section 112(c)(9)(B)(ii).

B. What Issues Were Raised Related to the Potential Overlap With the HCl Production NESHAP?

Comment: Four commenters supported EPA's decision to include direct synthesis HCl as a part of the non-mercury cell chlorine production process. However, a commenter requested that we clarify that chlorine and HCl emissions from the absorber vents and associated storage vessels and transfer racks of the direct synthesis HCl production units were included in the risk analyses. To clarify applicability to the HCl Production NESHAP (subpart NNNNN of 40 CFR part 63), a commenter suggested that EPA modify the applicability provisions of subpart NNNNN.

Two commenters requested that we reevaluate collocated chlorine and HCl production sources and provide guidance so that the facilities can easily determine to which source category they belong. According to the commenters, collocated chlorine and HCl production sources may share transfer operations and storage tanks, and where appropriate, we should remove all facilities from the HCl acid production source category that meet the logical test outlined in the proposed action. The commenters stated that they believe the collocated integrated chlorine and HCl acid production facilities should be placed in the non-mercury cell chlorine production source category and removed from the HCl production source category.

Response: The final rule for subpart NNNNN of 40 CFR part 63 (68 FR 19076, April 17, 2003) states, in § 63.8985(d), that an "HCl production facility is not subject to this subpart if it produces HCl through the direct synthesis of hydrogen and chlorine and is part of a chlor-alkali facility." The definition of "HCl production facility" in subpart NNNNN includes "all HCl storage tanks that contain liquid HCl product that is produced in the HCl production unit" (*e.g.*, direct synthesis unit) as well as "all HCl transfer operations that load HCl product produced in the HCl production unit into a tank truck, rail car, ship, or barge, along with the piping and other equipment in HCl service used to transfer liquid HCl product from the HCl production unit to the HCl storage tanks and/or HCl transfer operations." Therefore, we have clarified that chlorine and HCl emissions from the absorber vents of direct synthesis HCl production units at chlor-alkali facilities, as well as the associated storage tanks and transfer operations specified above, are included in the non-mercury cell chlorine production subcategory and are not regulated under subpart NNNNN.

The clarifications we made in subpart NNNNN provide guidance for sources to determine to which source category their operations belong. As stated above, all HCl production facilities at chlor-alkali plants that produce HCl through direct synthesis are part of the non-mercury cell chlorine production subcategory. All other HCl production facilities (*e.g.*, those that produce HCl as a co-product of a chlorinated organic compound) at sites where chlor-alkali plants are located are part of the HCl Production source category and subject to subpart NNNNN. In the case of shared storage tanks and transfer operations, any storage tank that stores, and any transfer operation that loads, liquid HCl product which was produced in an HCl production facility that is subject to subpart NNNNN is subject to the provisions of that subpart.

C. What Issues Were Raised Regarding the Risk Assessment That Forms the Technical Basis for This Final Action?

Comment: In the analysis for the proposed action, we used the HCl RfC to determine the long-term health effects of chlorine emissions, since chlorine photolyzes very quickly to HCl in sunlight. Two comments supported that methodology and stated that our decision was based on sound scientific knowledge of the pollutants of concern.

In contrast, two other commenters did not agree with our use of the HCl RfC as a threshold level for chlorine. The commenters stated that not all of the annual chlorine emissions can be considered as HCl and, therefore, the chlorine exposure was underestimated. The commenters argued that chlorine emissions will not undergo photolysis to convert to HCl when there is not bright sunshine (*i.e.*, at night or on cloudy days).

Response: The widely accepted fact that chlorine is photolyzed in sunlight formed the basis for the assumption in the original risk assessment that chronic exposure to chlorine would not occur. As a result of the comment, we re-examined the literature on the atmospheric fate of chlorine in the atmosphere to validate our original assumption.

The additional information obtained from the literature confirmed our earlier information. There are several different pathways that molecular chlorine can take, including photolysis (reaction with light), reactions with hydroxyl radicals (OH), reactions with oxygen atoms (O), and reactions with water vapor (H_2O). Each pathway results in different amounts of Cl_2 being removed from the troposphere, and different pathways are predominant at different times of the day. However, photolysis is the primary pathway.

Therefore, this information did not fundamentally change the assumption made in the original risk assessment, which was that on a long-term basis, individuals will be exposed more to hydrochloric acid formed from the photolysis of chlorine than to chlorine. However, the commenters are correct that there will be situations where individuals will be exposed to chlorine. Therefore, in addition to the assessment where we considered only acute exposure to chlorine, we concluded that it was appropriate to consider the effects of chronic exposure to chlorine emissions from chlor-alkali plants. In order to provide an upper bound estimate of the chronic risks to compare with the lower bound estimates assuming that all chlorine was converted to HCl, we conducted modeling assuming that no chlorine is photolyzed.

In general, we consider an exposure concentration which is below the RfC concentration (what we call a hazard quotient of less than 1) to be safe. This is based on the definition of RfC. The RfC is a peer reviewed value defined as an estimate (with uncertainty spanning perhaps an order of magnitude) of a daily inhalation exposure to the human population (including sensitive subgroups) that is likely to be without appreciable risk of deleterious noncancer effects during a life time (i.e., 70 years).

We conducted additional modeling for all facilities within the subcategory using the same model used for the proposed action (ISCST3) to estimate chronic chlorine exposure using the assumption that no chlorine is photolyzed to HCl. The hazard quotients resulting from this additional modeling defined the upper bound of our risk assessment. The highest upper-bound hazard quotient estimated by the model is just over 0.3. (For more details regarding this revised risk assessment, refer to table 2 of the responses to

comment document, available in the docket.) Given the health protective assumptions used in this analysis, the value of 0.3 represents a hypothetical exposure that is well above what we would expect actual exposures to be. This is because chlorine is converted to HCl in the presence of sunlight within a few minutes. In addition, the hazard quotient of 0.3, which results from this exposure scenario is well below the safe value of 1. Thus, we have concluded that, even assuming that some chronic exposure to chlorine may occur, none of the sources included in this subcategory will have emissions of chlorine or HCl that exceed a level of exposure which is adequate to protect public health and the environment with an ample margin of safety.

Comment: Two commenters did not support EPA's use of the AEGL2 for use as a short-term exposure limit for chlorine and HCl. One commenter stated that the AEGL2 values would not sufficiently protect public health because they would allow emissions at levels that cause discomfort, and according to the commenter, discomfort is an adverse health effect. The commenter also complained that EPA did not explain why it chose to use AEGL2 rather than AEGL1 or AEGL3. The commenter explained that although emissions from chlorine plants did not exceed AEGL2 values, the emissions may exceed AEGL1 values, and if they did, the proposed action would not meet the statutory requirements. Another commenter stated that AEGL limits are not appropriate for assessing daily human exposure scenarios because they were developed for emergency planning. The commenter recommended that EPA should use the American Conference of Governmental Industrial Hygienists (ACGIH), which has a 1-hour Short Term Exposure Limit (STEL) similar to the AEGL1 value of 1 parts per million (ppm) (for chlorine) and is used to protect against eye and mucous membrane irritation. The commenter's policy as a State agency is to add an additional safety factor of ten to ACGIH STEL values to protect for sensitive individuals, since ACGIH values were established for healthy workers. The commenter stressed that EPA must use conservative benchmarks before concluding that an ample margin of safety exists.

Response: The AEGL values represent short-term threshold or ceiling exposure values intended for the protection of the general public, including susceptible or sensitive individuals, but not hypersusceptible or hypersensitive individuals. The AEGL values represent biological reference values for this defined human population and consist of three biological endpoints for each of four different exposure periods of 30 minutes, 1 hour, 4 hours, and 8 hours.

The AEGL2 level is defined as follows: AEGL2 is the airborne concentration of a substance at or above which it is predicted that the general population, including susceptible, but excluding hypersusceptible individuals, could experience irreversible or other serious, long-lasting effects or impaired ability to escape. Airborne concentrations below the AEGL2, but at or above AEGL1 represent exposure levels that may cause notable discomfort.

As utilized in the proposed action, the AEGL2 1-hour concentrations for chlorine and HCl are 5,800 $\mu g/m^3$ and 33,000 $\mu g/m^3$, respectively.

The AEGL1 level is defined as follows: AEGL–1 is the airborne concentration of a substance at or above which it is predicted that the general population, including "susceptible" but excluding "hypersusceptible" individuals, could experience notable discomfort. Airborne concentrations below AEGL–1 represent exposure levels that could produce mild odor, taste, or other sensory irritations.

The 1-hour AEGL1 concentration for chlorine is 2,900 $\mu g/m^3$ and the corresponding value for HCl is 2,700 $\mu g/m^3$. The ACGIH short term exposure limit for chlorine, which is 1 ppm is approximately equal to the AEGL1 value of 2,900 $\mu g/m^3$.

Although we stand by our original analysis, which used the AEGL2 level, we have referenced the commenter's suggested use of the AEGL1 values (possibly with a safety factor) for determining whether an ample margin of safety has been obtained. Therefore, we simply compared the short-term (1-hour average) modeling results from the original acute risk assessment to the AEGL1 values. These results were obtained by modeling the maximum allowable hourly emissions reported in the CAA section 114 responses for each of the sources. For plants that did not report fugitive emissions, fugitive emissions were estimated using worst-case emission factors.

The maximum modeled 1-hour chlorine concentration for 16 of the 20 plants is less than 5 percent of the AEGL–1 (and ACGIH) value for chlorine. Further, the highest modeled concentration for any plant, 346 $\mu g/m^3$, is less than 12 percent of the AEGL1 values. The highest modeled 1-hour HCl concentration for any plant, 120 $\mu g/m^3$, is less than 5 percent of the AEGL1 value for HCl.

Based on that comparison, we conclude that the chlorine and HCl emissions from non-mercury cell chlorine production plants do not represent an unsafe level of acute exposure. Further, we maintain, along with the chlorine exposure assessment, that proves that an ample margin of safety is provided with no additional control.

Comment: Two commenters supported EPA's method of selecting a risk assessment approach to meet the unique needs of the chlorine production industry. The commenters agreed that the risk assessment methodology should not be interpreted as a standardized approach that would set a precedent for how EPA will apply CAA section 112(d)(4) in future cases. Furthermore, the commenters stated that degree of conservatism built into all aspects of the risk assessment conducted for the chlorine production source category could vary greatly in future risk assessments for other source categories. The commenters stressed that they believe that the conservative assumptions made in the health effects assessment, emissions estimates, and exposure assessment were appropriate for the proposed action.

In contrast, one commenter stated that the risk assessment fell short of the Agency's prior practice. According to the commenter, whenever EPA has made determinations to regulate a specific pollutant based on health considerations (*e.g.*, national ambient air quality standards (NAAQS) for ozone and particulate matter (PM), the Agency evaluated health effects and exposure in great detail. The commenter contended that in that case, EPA appears to be content with "the bare and unsupported assumptions about what health levels are safe." The commenter argued that it was not appropriate for EPA to use a rigorous approach when setting standards and a more cursory approach when making a decision not to regulate.

Response: We disagree with the one commenter's characterization of the assessment that forms the basis for this decision, and we strongly dispute the characterization of the assessment as "bare and unsupported." We maintain that the RfC and AEGL values used as benchmarks for the assessment are scientifically sound and appropriate. The emissions data and other inputs used for this analysis, which were provided by the industry and checked by our staff, are representative of the industry.

In this assessment, the predicted health effects estimated, using very conservative inputs and assumptions, were well below the recognized health

thresholds. While our approach in this particular action may not be the same as an approach for a NAAQS, it has been certainly more than cursory. We have looked at emissions and exposure data for each of the sources in the subcategory. We have established hazard indices for chlorine and HCl for each source in the subcategory. We performed a qualitative ecological assessment. Moreover, in response to comment received, we have adjusted our analyses and taken into account comments that we have received when performing these re-assessments. We will base each risk assessment for this and future regulatory action on sound scientific principles.

Comment: In the proposed action, the risk assessment modeling was conducted by placing receptors at the geographic center of census blocks within 2 kilometers of the site and in the population-weighted centers of census block groups or census tracks out to 50 kilometers. Two commenters did not agree with that methodology for determining receptor location for threshold pollutants. One commenter stated that EPA's methodology would be more appropriate for cancer causing agent, where the risk is based on probabilities of health effects. The commenter argued that for non-cancer (*i.e.*, threshold pollutants) compounds, placing the receptors at the center of census tracks would not properly identify the highest impacts close to the facility. They felt that it was more appropriate to measure the exposure of the most exposed individual (*e.g.*, someone living at the fence line of a facility or directly downwind).

Response: We agree with the commenters that the greatest impacts will likely occur near the facility for this source category. However, we do not agree with the commenters that our approach fails to meet statutory requirements. We do not feel that considering an "ample margin of safety" means that we must demonstrate no risk or adverse health effects for a theoretical person living at the fence line. Rather, we feel it is appropriate to assess the risks at locations where people most likely reside. A census block is the smallest geographic unit for which the Census Bureau tabulates 100-percent data. While census blocks in rural areas may be larger, many blocks correspond to individual city blocks in more populated areas. The commenter is correct in that an individual could live closer to the plant than the center of the census block, and our approach would have slightly underestimated risk. It is just as likely, however, that the closest individual could live farther from the plant than the center of the census block causing our risk estimates to be slightly overestimated. By placing receptors at the center of populated census blocks on all sides of a facility, we have evaluated people living downwind. In conclusion, we continue to feel that placing a receptor in the geographic center of populated census blocks near a facility is a well established approach to exposure modeling which results in a reasonable approximation of estimating the risks where people actually live, and we maintain that this methodology is appropriate for actions taken under the authority of either CAA section 112(d)(4) or CAA section 112(c)(9)(B)(ii).

Comment: One commenter stated that the total chlorine and HCl emissions from some of the facilities included in the risk assessment were grossly underestimated. In support of their argument, the commenter pointed out potential inconsistencies in the background emissions data contained in the docket. Specifically, the total chlorine emissions from the Dow Chemicals, Freeport, Texas facility were reported in the risk assessment document to be 22 pounds per year (lb/yr), but in the 1996 Chlorine Production Summary Report, chlorine emissions from only one production process located at the Dow Chemicals facility (the diaphragm cell process) were reported to be 9,800 lb/yr. The commenter stated that since emissions from other processes at the Dow facility were not included in the summary report, the emissions were likely to be much higher. The commenter also noted that the Dow facility had the lowest emissions (22 lb/yr) of facilities reported in the risk assessment document and the highest chlorine production volume (1.8 million lb Cl_2/yr), which also indicates that the emissions from the Dow facility were underestimated.

According to the commenter, the inconsistencies between the reports undermine the credibility of the risk assessment to support a decision to not regulate this source category. Furthermore, the commenter stated that they believe that the emission inventory information provides justification for a need to establish a MACT floor. The commenter concluded that the risk assessment was flawed because the potential impacts on health and the environment were underestimated.

Response: The primary sources of the emission estimates used in the risk assessment for this source category were responses submitted directly by the facilities in response to a request for information under our authority in section 114 of the Clean Air Act. A review of the data was conducted as they were received, and follow-up questions asked of the industry representatives to clarify the information submitted. After the analysis, we were satisfied with the quality of the data, with one exception. Only one-half of the facilities submitted chlorine emission estimates from fugitive sources. One of the areas of focus in the follow-up questions was to verify the fugitive emission estimates for those facilities that did submit such estimates. Our conclusion was that fugitive emissions are to be expected from every non-mercury cell chlorine production plant, so we estimated fugitive emissions for those that did not submit estimates. That was done using the highest emission factor calculated from the plants that did report fugitives. The use of the "worst-case" factor was appropriately conservative for this assessment.

The commenter compared the emissions used in the assessment to 1991/1992 base year emissions in an earlier report on this industry, the 1996 Chlorine Production Summary Report, and correctly noted that there is a large discrepancy between the emissions levels for Dow Chemical's plant in Freeport, Texas. As a result of that comment, we made a comparison of the emissions from all plants between these two sources of information.

The comparison revealed that the Dow Freeport facility is only one of only two plants whose emissions used in the risk assessment were lower than the 1991/1992 base year emissions in the 1996 summary report. In fact, the 2000/2001 emissions used in the risk assessment for the other facilities with reported emissions in both documents averaged five times HIGHER than those reported in the 1996 summary document. Clearly, the comparison does not lead to the conclusion that the risk assessment was based on grossly underestimated emissions. A review of the data submitted by the two facilities whose 2000/2001 emissions were substantially lower than their 1991/1992 emissions did not result in any obvious errors or questionable assumptions that could be disputed with the available information. Furthermore, according to the facility, the chlorine and HCl emissions reported in the 1996 summary document included emissions from processes within the plant not related to chlorine production. That was corrected for the 2000/2001 emissions data submittal. Therefore, no changes were made as a result of the review of the reported emissions data.

The comparison did result in the concern that the emissions, particularly

the fugitive emissions estimated using the worst-case factor, had been overestimated. As a point of comparison, we obtained the 2001 chlorine releases from the Toxic Release Inventory (TRI) for all ten sites for which fugitive emissions were estimated using the worst-case factor. We found that nine of the ten plants had total chlorine fugitive releases reported in TRI that were less than the those used in the risk assessment. For instance, the PPG facility in Lake Charles, Louisiana, reported 8,000 lb/yr of fugitive chlorine releases for the entire site (a very large chemical complex). We estimated 31,178 lb/yr using the worst-case emission factor. We concluded that it was overly conservative to use these estimates in light of the TRI information and in fact, we likely overestimated the fugitive emissions for these plants. Therefore, in the revised modeling for this final action for chronic chlorine exposures, we used the total chlorine fugitive releases from TRI in the revised assessment for eight plants. That is still conservative as these TRI values represent chlorine fugitive releases from all processes at the site, not just the non-mercury cell chlorine production processes. For two plants, company representatives provided a breakdown of the portion of the TRI emissions that were from the non-mercury cell chlorine production processes, and those values were used in the re-assessment.

Comment: One commenter stated that all chlorine emissions from non-mercury chlorine production facilities that are collocated with other source categories need to be reviewed as a whole when evaluating public health risk, adverse environmental effects, and possible control strategies. The commenter stressed that other sources of chlorine and HCl should be included in the risk assessment under CAA section 112(d)(4). The commenter was concerned that not accounting for all chlorine and HCl emissions from a facility would provide the community with a false sense of assurance of protection, and is not consistent with the legislative intent of the CAA to consider cumulative HAP exposure issues through an integrated approach under CAA sections 112(d), 112(f), and 112(k). Therefore, the commenter requested that EPA evaluate the potential for adverse health and environmental impacts using conservative risk assessment methodology that incorporates all known chlorine and HCl emissions from a contiguous facility.

Response: Section 112 of the CAA requires us to list categories and subcategories of major sources and area sources of HAP, and to establish NESHAP for the listed source categories and subcategories. In directing us how to establish MACT emission limits, section 112(d)(3) of the CAA requires us to set the emission limitation at a level that assures that all major sources achieve the level of control at least as stringent as that already achieved by the better-controlled and lower-emitting sources in each source category or subcategory. Therefore, the entire MACT program is structured on a source category-specific basis. All MACT standards developed to date have addressed emissions from specific source categories.

There are instances where non-mercury chlorine production facilities are collocated with other source categories. However, based on the risk assessment for chlorine and HCl emissions from chlor-alkali plants, the predicted impacts from chlorine and HCl at these chlor-alkali plants are extremely low. We believe that the human health and environmental impacts from all sources in the category even when collocated with other chlorine and HCl emissions will still be within an ample margin of safety to protect the public health, and will not cause adverse environmental effects. Moreover, as indicated in the preamble to the proposed rule, most major processes at the sites where non-mercury cell chlorine production facilities are located are subject to, or will be subject to, NESHAP to reduce HAP emissions (67 FR 44714, July 3, 2002). Therefore, it would not be appropriate to include emissions from those sources in an assessment for the non-mercury cell chlorine production source category conducted under the authority of CAA section 112(d)(4).

Comment: Two commenters stated that the environmental effects analysis was not adequate. One commenter stated that potential ecological effects of HCl emissions have not been properly referenced. One commenter stated that EPA's proposed action falls short of its obligation to protect against environmental effects. According to the commenter, EPA has understated its statutory obligation in the proposed action. The commenter referred to the legislative history, which indicates that CAA section 112(d)(4) requires standards that "would not result in adverse environmental effects which would otherwise be reduced or eliminated." The commenter listed the several shortcomings in the EPA's environmental assessment.

The commenter concluded that although EPA acknowledged that it had an obligation to ensure that any standards set under CAA section 112(d)(4) did not have any adverse environmental effects, the Agency did not properly consider the issue. Therefore, commenter stated that they believed that EPA could not promulgate standards under CAA section 112(d)(4) without contravening the CAA.

Response: While CAA section 112(d)(4) makes no mention of environmental effects, we took the potential of such adverse effects into account when we issued our proposed action. In addition, CAA section 112(c)(9)(B)(ii), which is the authority we are citing in today's final action to delete this subcategory, does require that we show there are no adverse environmental effects from emissions from the subcategory.

The level of our analysis at proposal was adequate to satisfy the requirements of CAA section 112(c)(9)(B)(ii). The commenters did not suggest that they believed there was the potential for adverse environmental effects from HCl or chlorine emissions from non-mercury cell chlorine production plants. Were there any evidence that such adverse effects were likely, or even possible, we would have conducted a more intensive ecological risk assessment.

The commenters are correct, however, that we did not discuss the ecological effects of chlorine. That was because, as was stated in the proposal preamble, we did not perform a separate evaluation of chronic chlorine exposure because chlorine is converted to HCl in the atmosphere so rapidly. Following is a brief summary of the environmental effect of chlorine.

Atmospheric exposure is the primary pathway for environmental effects from chlorine emissions. However, since most chlorine is converted to HCl, studies have focused on the effects of HCl on vegetation. Although plant exposures to elevated levels of chlorine can cause plant injury, it tends to be converted to other, less toxic forms rather rapidly in plants, and may not result in the direct accumulation of toxic pollutant residuals important in the food chain.

Plant studies have found foliar damage due to chlorine emissions and foliar damage, decreased levels of chlorophyl a and b, decreased leaf areas, obvious chlorosis, and a decline in fruit production due to chlorine emissions.

There is evidence of effects to animals due to accidental and/or catastrophic exposures, but the chlorine concentrations of these exposures are unknown. However, there is no data on exposure to historic or atmospheric concentrations.

More information is available on the effects of chlorine from aquatic exposures. However, there is no evidence that suggests that emissions of chlorine from industrial sources in the air contribute significantly to aquatic concentrations of chlorine.

One study reported a significant decrease in phytoplankton activity following exposure to 0.1 ppm chlorine in cooling tower water. Additional laboratory studies showed that continuous exposure to 0.002 milligram per liter (mg/L) total residual chlorine (TRC) resulted in depressed algal biomass in naturally-derived microcosms.

When exposed continuously for 96 hours to 0.05 mg/L TRC, the Eurasian water milfoil showed a significant reduction in shoot and dry weights, shoot length, and chlorophyll content.

Aquatic invertebrates are very sensitive to chlorine and reaction products of chlorine, with early life stages showing the most sensitivity. For example, free chlorine, monochloramine, and dichloroamine have been shown to reduce the rate of oyster larvae survival. Many studies have been performed, and the results are highly variable depending on the chlorine species, the lifestage of the invertebrate, and other factors such as salinity. The most sensitive aquatic species appears to be molluscan larvae, with LC_{50} concentrations of 0.005 mg/L. Sublethal effects have also been studied, including reduced growth, reduced motility, and reproductive failure.

The effects on fish also vary depending on the life stage and fish species, and environmental factors, such as the pH, temperature, and type of chlorine species. Larval stages are more susceptible to effects, and freshwater species are more sensitive than marine species. Free chlorine is generally more toxic than residual chlorine; where the form of chlorine is dependent on the pH of the water. Sublethal effects such as avoidance, reduction of diversity in chlorinated effluents, reduction or elimination of spawning, abnormal larvae, reduced oxygen consumption, and gill damage have been noted. Many LC_{50} values were reported, ranging from 0.08 mg/L after 24 hours of exposure to TRC to 2.4 mg/L after 0.5 hours of exposure to TRC.

Acute and chronic exposures to predicted chlorine and HCl concentrations around the sources are not expected to result in adverse toxicity effects. These pollutants are not persistent in the environment. The chlorine and HCl emitted should not significantly contribute to aquatic chlorine concentrations, and are not likely to accumulate in the soil. Chlorine rapidly converts to HCl in the atmosphere, and chlorine and HCl are not believed to result in biomagnification or bioaccumulation in the environment. Therefore, we do not believe there will be adverse ecological effects due to chlorine and HCl emissions from non-mercury cell chlorine production plants.

IV. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993) the Agency must determine whether the regulatory action is "significant" and, therefore, subject to Office of Management and Budget (OMB) review and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or Tribal governments or communities;

(2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this Executive Order.

It has been determined that this final action is not a "significant regulatory action" under the terms of Executive Order 12866 and is, therefore, not subject to OMB review.

B. Paperwork Reduction Act

Since there is no rule associated with this final action, there are no information collection requirements.

C. Regulatory Flexibility Act

The RFA generally requires that an agency conduct a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administrations' regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. This final action deletes the subcategory of sources that do not utilize mercury cells to produce chlorine and caustic. We conclude that no further control or regulation is necessary.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and Tribal governments and the private sector. Under section 202 of the UMRA, the EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures by State, local, and Tribal governments, in aggregate, or to the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires us to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows us to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if we publish with the final rule an explanation as to why that alternative was not adopted.

Before we establish any regulatory requirements that may significantly or uniquely affect small governments, including Tribal governments, we must have developed under section 203 of the UMRA, a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the

development of our regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

We have determined that this final action does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and Tribal governments, in the aggregate, or the private sector in any 1 year. Thus, today's final action is not subject to the requirements of sections 202 and 205 of the UMRA. In addition, this final action contains no regulatory requirements. Therefore, the final action is not subject to the requirements of section 203 of the UMRA.

E. Executive Order 13132: Federalism

Executive Order 13132 (64 FR 43255, August 10, 1999) requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of Government."

The final action does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of Government, as specified in Executive Order 13132. Thus, Executive Order 13132 does not apply to the final action.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175 (65 FR 67249, November 6, 2000) requires EPA to develop an accountable process to ensure "meaningful and timely input by Tribal officials in the development of regulatory policies that have tribal implications." "Policies that have Tribal implications" is defined in the Executive Order to include regulations that have "substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes."

The final action does not have Tribal implications. It will not have substantial direct effects on Tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175. Thus, Executive Order 13175 does not apply to the final action.

G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks

The Executive Order 13045 applies to any rule (1) that OMB determines is "economically significant," as defined under Executive Order 12866, and (2) the EPA determines that the environmental health or safety risk addressed by the rule has a disproportionate effect on children. If the regulatory action meets both criteria, the EPA must evaluate the environmental, health, or safety aspects relevant to children and explain why the rule is preferable to other potentially effective and reasonably feasible alternatives considered by the EPA. Since there is no rule associated with this final action, Executive Order 13045 does not apply.

H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use

The final action is not subject to Executive Order 13211 (66 FR 28355, May 22, 2001) because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer Advancement Act

Section 12(d) of the National Technology Transfer Advancement Act (NTTAA) of 1995 (Public Law 104–113; 15 U.S.C. 272 note) directs EPA to use voluntary consensus standads in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to the Office of Management and Budget (OMB), with explanations when an agency does not use available and applicable voluntary consensus standards.

The final action does not involve technical standards, therefore, the NTTAA does not apply.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. Today's final action is not a rule, therefore, the Congressional Review Act does not apply.

List of Subjects in 40 CFR Part 63

Environmental protection, Air emissions control, Hazardous air pollutants.

Dated: August 29, 2003.

Marianne L. Horinko,

Acting Administrator.

[FR Doc. 03–22929 Filed 12–18–03; 8:45 am]

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Friday,
December 19, 2003

Part IV

Environmental Protection Agency

40 CFR Parts 60 and 63
Standards of Performance for Bulk Gasoline Terminals and National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations); Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 60 and 63

[OAR–2002–0029, FRL–7599–9]

RIN 2060–AJ42

Standards of Performance for Bulk Gasoline Terminals and National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule; amendments.

SUMMARY: On August 18, 1983, we promulgated Standards of Performance for Bulk Gasoline Terminals (48 FR 37590). The 1983 standards of performance limit and control emissions of volatile organic compounds (VOC) that react with other pollutants to form ozone (or smog) which has been linked to respiratory impairment and eye irritation, and negatively affects vegetation and ecosystems. On December 14, 1994, we promulgated National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations) (59 FR 64318). The 1994 national emission standards limit and control hazardous air pollutants (HAP) that are known or suspected to cause cancer or have other serious health or environmental effects.

On September 20, 2002, we proposed amendments to the 1983 standards of performance and 1994 national emission standards to provide for the use of alternative leak test procedures for railcars under the 1994 national emission standards, a clarification on monitoring flares and thermal oxidation systems used to comply with the 1994 national emission standards, alternative recordkeeping requirements for tank trucks and railcars under the 1983 standards of performance and 1994 national emission standards, and the use of flare design specifications under the 1983 standards of performance by incorporating the allowance in the text of that final rule. This document takes final action on those proposed amendments. The amendments do not change the level of control or compromise the environmental protection achieved by the 1983 standards of performance and 1994 national emission standards, but provide clarification and alternatives that enhance the flexibility of the recordkeeping and testing requirements of the two final rules.

DATES: This rule is effective December 19, 2003. The incorporation by reference of certain publications listed in today's final amendments is approved by the Director of the Federal Register as of December 19, 2003.

ADDRESSES: Docket Nos. OAR–2002–0029 and A–92–38 contain supporting information used in developing the standards. The docket is located at the EPA Docket Center (Air Docket), Public Reading Room, Room B102, EPA West Building, 1301 Constitution Avenue, NW., Washington, DC, and may be inspected from 8:30 a.m. to 4:30 p.m., Monday through Friday, except for legal holidays.

FOR FURTHER INFORMATION CONTACT: For further information concerning applicability to a facility, contact the appropriate State or local agency representative. If no State or local agency representative is available, contact the appropriate EPA Regional Office Director listed in 40 CFR 63.13. For further information on compliance issues, contact Ms. Julie Tankersley, U.S. EPA, Office of Enforcement and Compliance Assurance, 2223A, Ariel Rios Building, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, telephone (202) 564–7002, electronic mail (e-mail) address: *tankersley.julie@epa.gov*. For further information concerning analyses performed in the development of the final amendments, contact Mr. Stephen Shedd, U.S. EPA, OAQPS, Emission Standards Division, Waste and Chemical Processes Group (C439–03), Research Triangle Park, North Carolina 27711, telephone (919) 541–5397, facsimile number (919) 685–3195, electronic mail (e-mail) address: *shedd.steve@epa.gov*.

SUPPLEMENTARY INFORMATION:

Regulated entities. The regulated categories and entities affected by this action include:

Category	NAICS[a]	(SIC[b])	Examples of regulated entities
Industry	324110 493190 486910 422710	(2911) (4226) (4613) (5171)	Operations at major sources that transfer and store gasoline, including petroleum refineries, pipeline breakout stations, and bulk terminals.
Federal/State/local/tribal governments.			

[a] North American Industry Classification System.
[b] Standard Industrial Classification.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your facility would be regulated by this action, you should examine the applicability criteria in 40 CFR 60.500 and 40 CFR 63.420. If you have any questions regarding the applicability of this action to a particular entity, consult either the air permit authority for the entity or the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Docket. We have established an official public docket for this action under Docket ID Nos. A–92–38 and OAR–2002–0029. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. All items may not be listed under both docket numbers, so interested parties should inspect both docket numbers to ensure that they have received all materials relevant to the final amendments. Although a part of the official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is restricted by stature. The official public docket is the collection of materials that is available for public viewing at the Office of Air and Radiation Docket and Information Center (Air Docket) in the EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Avenue NW., Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744. The telephone number for the Air Docket is (202) 566–1742. A reasonable fee may be charged for copying docket materials.

Electronic Access. An electronic version of the public docket (Docket ID

No. OAR–2002–0029) is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Once in the system, select "search," then key in the appropriate docket identification number (OAR–2002–0029). Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility identified in the above paragraph entitled "Docket."

Worldwide Web (WWW). In addition to being available in the docket, an electronic copy of today's final amendments will also be available on the WWW through the Technology Transfer Network (TTN). Following signature, a copy of the final amendments will be posted on the TTN's policy and guidance page for newly proposed or promulgated rules at the following address: *http://www.epa.gov/ttn/oarpg/.* The TTN provides information and technology exchange in various areas of air pollution control. If more information regarding the TTN is needed, call the TTN HELP line at (919) 541–5384.

Judicial Review. Under section 307(b)(1) of the Clean Air Act (CAA), judicial review of the final amendments is available by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by February 17, 2004. Only those objections to the final amendments which were raised with reasonable specificity during the period for public comment may be raised during judicial review. Under section 307(b)(2) of the CAA, the requirements that are the subject of today's final amendments may not be challenged later in civil or criminal proceedings brought by EPA to enforce these requirements.

Outline. The information presented in this preamble is organized as follows:

I. Introduction
II. Summary of Comments and Responses
III. Statutory and Executive Order Reviews
A. Executive Order 12866: Regulatory Planning and Review
B. Paperwork Reduction Act
C. Regulatory Flexibility Analysis
D. Unfunded Mandates Reform Act
E. Executive Order 13132: Federalism
F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments
G. Executive Order 13045: Protection of Children from Environmental Health & Safety Risks
H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use
I. National Technology Transfer Advancement Act
J. Congressional Review Act

I. Introduction

We received eight public comment letters on the September 20, 2002 proposed amendments. Six of the comment letters were from industry representatives, one was from a control device manufacturer, and one was from a State air pollution control agency. The commenters addressed the alternative leak test procedures for railcars, the definitions and monitoring requirements for flares and thermal oxidation systems, and the alternative recordkeeping requirements for tank trucks. The commenters expressed support for certain provisions of the amendments, disagreed with one provision, and requested an additional alternative to one that was proposed. This preamble summarizes the comments, presents our responses to the comments, and identifies changes made to the amendments as proposed.

II. Summary of Comments and Responses

Comment: Several commenters (two trade organizations, three oil companies, and one control device manufacturer) objected to the proposed amendments concerning thermal oxidation systems, stating that the current national emission standards allow three monitoring options for devices they referred to as "enclosed flares," which are flare-like burner systems enclosed by a stack or other enclosure. They stated that the proposed amendments amounted to an unnecessary and inappropriate narrowing of the monitoring alternatives for enclosed flares. They stated that monitoring of the pilot flame provides adequate assurance that the enclosed flare is operating in compliance with the emission standard, and that the temperature monitoring alternative should be applied only to enclosed flares that are not meeting the design specification requirements of 40 CFR 63.11(b), operated similarly to thermal incinerators, or operated by a facility that prefers to use this monitoring method.

The commenters offered several reasons why continuous temperature monitoring would not be appropriate for enclosed flares. They claimed that vapor oxidation efficiency does not directly correlate with combustion zone temperature in these systems. They said that temperature monitoring is most appropriate for thermal incinerators where relatively constant flow rates and compositions and, thus, a constant temperature, are maintained. They explained that most enclosed flares operate on a cyclic, on-off basis and, when designed and operated properly, provide for energy conservation and maximum emissions reductions. The commenters noted that enclosed flares are designed and operated just like other flares, using the same technology and installed in the same applications.

Additionally, the commenters pointed out that enclosed flares may have to use additional supplemental fuel to achieve and maintain a specific temperature, which would lead to increased emissions of VOC, carbon monoxide, nitrogen oxides, and carbon dioxide. The amendments as proposed also could inadvertently promote the use of less desirable and less efficient open flame flares at facilities wishing to avoid the increased testing and monitoring requirements associated with the thermal oxidation definition. One commenter recommended that the parametric continuous monitoring requirements not be limited exclusively to firebox or stack temperature, and that no parametric monitoring methods be prohibited on a general basis as long as the parameter can be demonstrated to be reliable. Other commenters also requested that facilities continue to have the option of applying for an alternative operating parameter as provided in 40 CFR 63.427(a)(5).

Response: As discussed in the proposal preamble, the design and operating specifications for flares in the General Provisions of 40 CFR part 60 and 40 CFR part 63 were developed out of necessity, due to the fact that flares cannot be reasonably tested using the prescribed EPA source test methods. Further, it is not feasible to continuously monitor either emissions or an operating parameter of this type of control system. However, the thermal oxidation systems described by the commenters (enclosed flares) do contain an enclosed exhaust space (firebox, ductwork, stack, etc.) in which performance testing and continuous monitoring can be performed. We would have preferred to require continuous emission monitoring systems (CEMS) on all control devices since they directly monitor emissions to the atmosphere. Because viable CEMS were not identified (except for carbon adsorption systems), our intention has always been to apply, wherever possible, requirements for testing and for continuous monitoring of a direct indicator of compliance. Combustion temperature is a good indicator of

performance for combustion devices. Since open flares could not be directly measured for emissions or firebox temperature, we felt the next best indicator of continuing compliance was to require flares to meet minimum design specifications and to monitor for the presence of a flame. Studies conducted by EPA indicate that open flares meeting the design and monitoring requirements perform at a very high level of efficiency. However, the flare design requirements and the requirement to monitor for the presence of a flame were not intended for other thermal oxidation systems since there are more direct means of monitoring proper operation and maintenance.

While it may be possible that the types of devices described by the commenters are capable of operating as efficiently as open flares, the commenters did not provide any data or other information to demonstrate that a presence-of-flame indicator installed in a thermal oxidation system would ensure compliance with emission standards. They also did not describe alternate ways of ensuring that these systems are designed and operated properly if they were allowed to use presence-of-flame indicators. For compliance to be assured, the system needs to be properly designed, source tested initially to demonstrate compliance and to establish operating parameter values, and continuously monitored to ensure proper operation and continued compliance with the emission standards. We do not, however, mandate that the owner or operator adhere to a specific set of operating parameters to ensure continuing compliance. In fact, § 63.427(a)(5) of the final rule allows the owner or operator the flexibility of monitoring any parameters that can be demonstrated to ensure compliance with the emission standards. Commenters have stated that alternative parameters (other than temperature) for enclosed flares have already been approved by States and EPA. Those alternatives are acceptable under the national emission standards, as long as they have been properly demonstrated and approved as provided under § 63.427(a)(5).

As to the impacts of maintaining a specific temperature, we do not specify any certain temperature, averaging time, or monitoring frequency. Thus, if the owner or operator chooses to monitor temperature, they would develop and demonstrate (while considering the impacts on energy and other operating costs) the most appropriate maximum and minimum temperature values, averaging times, and monitoring frequency to indicate that the device is continuously achieving the emission standards.

Due to these considerations, we have retained the proposed definitions for "flare" and "thermal oxidation system". Further, § 63.427(a)(5) of the final rule still allows the monitoring of alternative operating parameters for thermal oxidation systems, flares, or any other type of control device upon demonstration that the parameter demonstrates continuous compliance with the standards of performance or national emission standards.

Comment: Two trade organizations commented that some of their member companies have agreements with local control agencies to maintain cargo tank vapor tightness documentation off-site but not necessarily have copies instantly available at the site. These facilities utilize a centralized computer system to maintain the records for each vehicle that would load at the terminal. Prior to allowing the vehicle operator to begin loading, the system automatically compares the vehicle identification number to the test records to ensure that the cargo tank has passed its test and that the test results have not expired. The facility maintaining the vapor tightness test results is able to provide a paper version to the terminal within a matter of minutes to hours (via facsimile), depending on the volume of records requested at any given time. The commenters said that the proposed requirement for facilities to provide the records "instantly" may prohibit these companies from continuing to operate using their current systems. They provided suggested rule language for incorporation into the 1983 standards of performance and 1994 national emission standards that would account for the recordkeeping procedure used by these companies. Their suggested provision would allow owners and operators using an automated vehicle lock-out system to maintain a record system in which a copy of the test documentation could be made available to inspectors either during a visit by EPA or at some other mutually agreeable time.

Response: The intent of the requirement for affected facilities to maintain vapor tightness test records is to provide a means of ensuring that noncertified gasoline cargo tanks do not load (or at least are not reloaded) at the facility. The computerized automation systems in use at many facilities could provide this assurance when they have the capability of automatically locking noncertified tanks out of the loading process, and when records are properly maintained and entered into the computerized system. Therefore, we have agreed to add this option in addition to what was proposed.

Comment: Commenters agreed with all of the proposed changes for railcar testing. However, two of the commenters clarified a statement in the preamble (67 FR 59437, September 20, 2002) that, "according to owners of railcars, (railcar) leases usually run from 3 to 5 years and require leak testing at the start or renewal of the lease." They agreed that most leases range from 3 to 5 years, but pointed out that the lessee determines when the leak test will be run according to the lessee's pre-loading procedures and/or Department of Transportation (DOT) requirements. The commenters stated that "although determined by the lessee, it is normal practice for a leak test to be performed when a lessor starts a new lease, but a leak test is traditionally not performed when a lease is renewed by the same company until it is time to conduct the test during scheduled maintenance."

Response: After consideration of the information provided by the commenters, we have decided not to make any changes to the amendments as proposed. As discussed more fully at proposal, there are several factors involved in our decision to consider the DOT leak testing procedures as an acceptable alternative to Method 27. The DOT test procedures allow for no leaks during the test while Method 27 does allow some leakage. The DOT procedures require pre- and post-test inspections of the structural integrity of the cargo tank and also require a qualifying program for testing personnel. The EPA leak testing procedures do not require either of these items. Our procedures do, however, require an annual test while the DOT only requires testing once every 10 years or whenever the service equipment is reassembled on the tank. The difference in testing frequency is not a significant issue because the other factors balance the difference. Therefore, while we would prefer the lease to require that leak tests be performed and that the condition of the cargo tank be checked at the renewal of a lease as well as at the start of a new lease, DOT requirements control vapor leakage to levels equivalent to those required by the 1994 national emission standards.

III. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), EPA must determine whether a regulation is

"significant" and, therefore, subject to Office of Management and Budget (OMB) review and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more, or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal government communities;

(2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligations of recipients thereof; or

(4) raise novel or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Today's final amendments to the 1983 standards of performance and 1994 national emission standards will reduce the recordkeeping and testing burden for some terminals, but we do not have an estimate of the number of terminals affected. Therefore, the cost impacts of the subject standards are less than previously estimated, but our estimates have not been revised. The OMB evaluated the action and determined it to be nonsignificant; therefore, the action did not require OMB review.

B. Paperwork Reduction Act

The information collection requirements in the subject standards have been previously submitted to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, and were approved by OMB under the promulgated 1983 standards of performance (OMB control number 2060–0006–ICR 0665.06) and 1994 national emission standards (OMB control number 2060–0325–ICR 1659.04). A copy of the Information Collection Request (ICR) documents may be obtained from Susan Auby by mail at the Office of Environmental Information, Collection Strategies Division (2822T), U.S. EPA, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, by e-mail at *Auby.Susan@epa.gov*, or by calling (202) 566–1672.

Today's final amendments will reduce the recordkeeping and testing burden for some terminals. We do not have an estimate of the number of terminals affected by today's final amendments. Therefore, the ICR burden is less than previously estimated but the ICR has not been revised.

C. Regulatory Flexibility Analysis

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the final amendments. The EPA has also determined that the final amendments will not have a significant economic impact on a substantial number of small entities.

For purposes of assessing the impacts of today's final amendments on small entities, small entity is defined as: (1) A small business whose parent company has fewer than 100 or 1,500 employees, or a maximum of $5 million to $18.5 million in revenues, depending on the size definition for the affected North American Industry Classification System (NAICS) code; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. It should be noted that the small business definition applied to each industry by NAICS code is that listed in the Small Business Administration (SBA) size standards (13 CFR 121). For more information on size standards for particular industries, please refer to the economic impact analysis in the docket.

When EPA promulgated the 1994 national emission standards, it analyzed the potential impacts on small businesses, discussed the results of the analysis in the **Federal Register**, and concluded that the promulgated rule would not result in financial impacts that significantly or differentially stress affected small companies. The 1983 standards of performance were analyzed for potential impacts on small businesses under the Regulatory Flexibility Act (RFA) of 1980, and it was determined that the RFA did not apply. We analyzed and considered the impacts, and no significant impacts were expected.

After considering the economic impacts of today's final amendments on small entities, EPA has concluded that this action will not have a significant economic impact on a substantial number of small entities. Today's final amendments will minimize the impact on small entities by adding two alternatives to provide facilities with the flexibility to comply in the least costly manner while maintaining a workable and enforceable rule. Both alternatives were requested by impacted bulk terminal and railcar owners and operators, and we worked with them to develop the alternatives.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures by State, local, and tribal governments, in aggregate, or by the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation of why that alternative was not adopted.

Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that today's final amendments do not contain a Federal mandate that may result in expenditures of $100 million or more to State, local, and tribal governments in the aggregate, or to the private sector in any 1 year. Thus, today's final action is not subject to the requirements of sections 202 and 205 of the UMRA.

E. Executive Order 13132: Federalism

Executive Order 13132, entitled "Federalism" (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism

implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

Today's final amendments do not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. Thus, the requirements of section 6 of the Executive Order do not apply to today's amendments.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 6, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." "Policies that have tribal implications" is defined in the Executive Order to include regulations that have "substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes."

Today's final amendments do not have tribal implications. They will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175. Thus, Executive Order 13175 does not apply to today's final amendments.

G. Executive Order 13045: Protection of Children From Environmental Health & Safety Risks

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, EPA must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by EPA.

We interpret Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. Today's final amendments are not subject to Executive Order 13045 because they are based on technology performance and not on health and safety risks.

H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use

Today's final amendments are not subject to Executive Order 13211 (66 FR 28355, May 22, 2001) because they are not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer Advancement Act

Under section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113, all Federal agencies are required to use voluntary consensus standards (VCS) in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA requires Federal agencies to provide Congress, through annual reports to OMB, with explanations when the agency does not use available and applicable VCS.

The final amendments involve technical standards. The EPA cites DOT railcar procedures that reference the AAR Tank Car Manual bubble test. Consistent with the NTTAA, EPA conducted searches to identify VCS in addition to that method. The search and review results have been documented and are placed in the docket for the final amendments, Docket Nos. A–92–38 and OAR–2002–0029.

Two VCS are cited in the final amendments as alternatives to DOT's bubble test. The two standards are British Standard (BS) EN–1593:1999, "Non-destructive Testing: Leak Testing-Bubble Emission Techniques," and ASTM E515–95 (Reapproved 2000), "Standard Test Method for Leaks Using Bubble Emission Techniques." These two standards are discussed below.

The VCS BS EN–1593 cited in the final amendments is a detailed method that contains procedures that are either equivalent to those of DOT bubble test specifications or that provide additional quality control, including: certification of personnel, creating a pressure differential, type of liquids to be used, preparation of the surface, dwell time appropriate for the establishment of bubble emissions, required surface temperature range, and specifications for direct and indirect visual examination procedures.

The VCS ASTM E515 cited in the final amendments is also an acceptable method that contains procedures that are either equivalent to those of DOT bubble test specifications or provide additional quality control, including: the type of liquids to be used; application of fluid; creating a pressure differential; applying pressure before liquid is applied; and accuracy, repeatability, and reproducibility of locating leaks of 0.0001 standard cubic centimeters per second or greater.

The methods that are included in the final amendments are listed in 40 CFR 63.425(i)(2). Under 40 CFR 63.7(f) of subpart A (General Provisions), a source may apply to EPA for permission to use alternative test methods in place of any EPA testing methods.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing these final amendments and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the amendments in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2). The final amendments become effective on December 19, 2003.

List of Subjects

40 CFR Part 60

Environmental protection, Administrative practice and procedures, Air pollution control, Intergovernmental relations, Reporting and recordkeeping requirements.

40 CFR Part 63

Environmental protection, Administrative practice and procedures,

Air pollution control, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: December 12, 2003.

Michael O. Leavitt,

Administrator.

■ For the reasons set out in the preamble, title 40, chapter I, parts 60 and 63 of the Code of Federal Regulations are amended as follows:

PART 60—[AMENDED]

■ 1. The authority citation for part 60 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

Subpart XX—[Amended]

■ 2. Section 60.501 is amended by adding in alphabetical order definitions for "flare" and "thermal oxidation system" to read as follows:

§ 60.501 Definitions.

* * * * *

Flare means a thermal oxidation system using an open (without enclosure) flame.

* * * * *

Thermal oxidation system means a combustion device used to mix and ignite fuel, air pollutants, and air to provide a flame to heat and oxidize hazardous air pollutants. Auxiliary fuel may be used to heat air pollutants to combustion temperatures.

* * * * *

■ 3. Section 60.503 is amended by adding paragraphs (e) and (f) to read as follows:

§ 60.503 Test methods and procedures.

* * * * *

(e) The performance test requirements of paragraph (c) of this section do not apply to flares defined in § 60.501 and meeting the requirements in § 60.18(b) through (f). The owner or operator shall demonstrate that the flare and associated vapor collection system is in compliance with the requirements in §§ 60.18(b) through (f) and 60.503(a), (b), and (d).

(f) The owner or operator shall use alternative test methods and procedures in accordance with the alternative test method provisions in § 60.8(b) for flares that do not meet the requirements in § 60.18(b).

■ 4. Section 60.505 is amended by adding paragraph (e) to read as follows:

§ 60.505 Reporting and recordkeeping.

* * * * *

(e) As an alternative to keeping records at the terminal of each gasoline cargo tank test result as required in paragraphs (a), (c), and (d) of this section, an owner or operator may comply with the requirements in either paragraph (e)(1) or (2) of this section.

(1) An electronic copy of each record is instantly available at the terminal.

(i) The copy of each record in paragraph (e)(1) of this section is an exact duplicate image of the original paper record with certifying signatures.

(ii) The permitting authority is notified in writing that each terminal using this alternative is in compliance with paragraph (e)(1) of this section.

(2) For facilities that utilize a terminal automation system to prevent gasoline cargo tanks that do not have valid cargo tank vapor tightness documentation from loading (*e.g.*, via a card lock-out system), a copy of the documentation is made available (*e.g.*, via facsimile) for inspection by permitting authority representatives during the course of a site visit, or within a mutually agreeable time frame.

(i) The copy of each record in paragraph (e)(2) of this section is an exact duplicate image of the original paper record with certifying signatures.

(ii) The permitting authority is notified in writing that each terminal using this alternative is in compliance with paragraph (e)(2) of this section.

* * * * *

PART 63—[AMENDED]

■ 5. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

■ 6. Section 63.14 is amended by adding new paragraphs (b)(30) and (j) to read as follows:

§ 63.14 Incorporation by reference.

* * * * *

(b) * * *

(30) ASTM E 515–95 (Reapproved 2000), Standard Test Method for Leaks Using Bubble Emission Techniques, IBR approved for § 63.425(i)(2).

* * * * *

(j) The following material is available for purchase from: British Standards Institute, 389 Chiswick High Road, London W4 4AL, United Kingdom.

(1) BS EN 1593:1999, Non-destructive Testing: Leak Testing—Bubble Emission Techniques, IBR approved for § 63.425(i)(2).

(2) [Reserved]

* * * * *

Subpart R—[AMENDED]

■ 7. Section 63.421 is amended by inserting the following definitions in alphabetical order as follows:

§ 63.421 Definitions.

* * * * *

Flare means a thermal oxidation system using an open (without enclosure) flame.

* * * * *

Thermal oxidation system means a combustion device used to mix and ignite fuel, air pollutants, and air to provide a flame to heat and oxidize hazardous air pollutants. Auxiliary fuel may be used to heat air pollutants to combustion temperatures.

* * * * *

■ 8. Section 63.422 is amended by revising paragraph (c)(2)(i) and adding paragraph (e) to read as follows:

§ 63.422 Standards: Loading racks.

* * * * *

(c) * * *

(2) * * *

(i) The tank truck or railcar gasoline cargo tank meets the test requirements in § 63.425(e), or the railcar gasoline cargo tank meets applicable test requirements in § 63.425(i);

* * * * *

(e) As an alternative to 40 CFR 60.502(h) and (i) as specified in paragraph (a) of this section, the owner or operator may comply with paragraphs (e)(1) and (2) of this section.

(1) The owner or operator shall design and operate the vapor processing system, vapor collection system, and liquid loading equipment to prevent gauge pressure in the railcar gasoline cargo tank from exceeding the applicable test limits in § 63.425(e) and (i) during product loading. This level is not to be exceeded when measured by the procedures specified in 40 CFR 60.503(d) of this chapter.

(2) No pressure-vacuum vent in the bulk gasoline terminal's vapor processing system or vapor collection system may begin to open at a system pressure less than the applicable test limits in § 63.425(e) or (i).

■ 9. Section 63.425 is amended by revising paragraph (a) and adding paragraph (i) to read as follows:

§ 63.425 Test methods and procedures.

(a) Each owner or operator subject to the emission standard in § 63.422(b) or 40 CFR 60.112b(a)(3)(ii) shall comply with the requirements in paragraphs (a)(1) and (2) of this section.

(1) Conduct a performance test on the vapor processing and collection systems according to either paragraph (a)(1)(i) or (ii) of this section.

(i) Use the test methods and procedures in 40 CFR 60.503 of this chapter, except a reading of 500 ppm shall be used to determine the level of

leaks to be repaired under 40 CFR 60.503(b), or

(ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in § 63.7(f).

(2) The performance test requirements of 40 CFR 60.503(c) do not apply to flares defined in § 63.421 and meeting the flare requirements in § 63.11(b). The owner or operator shall demonstrate that the flare and associated vapor collection system is in compliance with the requirements in § 63.11(b) and 40 CFR 60.503(a), (b), and (d), respectively.

* * * * *

(i) *Railcar bubble leak test procedures.* As an alternative to paragraph (e) of this section for annual certification leakage testing of gasoline cargo tanks, the owner or operator may comply with paragraphs (i)(1) and (2) of this section for railcar gasoline cargo tanks, provided the railcar tank meets the requirement in paragraph (i)(3) of this section.

(1) Comply with the requirements of 49 CFR 173.31(d), 179.7, 180.509, and 180.511 for the testing of railcar gasoline cargo tanks.

(2) The leakage pressure test procedure required under 49 CFR 180.509(j) and used to show no indication of leakage under 49 CFR 180.511(f) shall be ASTM E 515–95 (incorporated by reference, *see* § 63.14), BS EN 1593:1999 (incorporated by reference, *see* § 63.14), or another bubble leak test procedure meeting the requirements in 49 CFR 179.7, 180.505, and 180.509.

(3) The alternative requirements in this paragraph (i) may not be used for any railcar gasoline cargo tank that collects gasoline vapors from a vapor balance system permitted under or required by a Federal, State, local, or tribal agency. A vapor balance system is a piping and collection system designed to collect gasoline vapors displaced from a storage vessel, barge, or other container being loaded, and routes the displaced gasoline vapors into the railcar gasoline cargo tank from which liquid gasoline is being unloaded.

10. Section 63.427 is amended by revising paragraphs (a)(3) and (4) to read as follows:

§ 63.427 Continuous monitoring.

(a) * * *

(3) Where a thermal oxidation system other than a flare is used, a CPMS capable of measuring temperature must be installed in the firebox or in the ductwork immediately downstream from the firebox in a position before any substantial heat exchange occurs.

(4) Where a flare meeting the requirements in § 63.11(b) is used, a heat-sensing device, such as an ultraviolet beam sensor or a thermocouple, must be installed in proximity to the pilot light to indicate the presence of a flame.

* * * * *

■ 11. Section 63.428 is amended by revising paragraphs (b)(1), (b)(3)(i), and (b)(3)(viii), and by adding paragraph (k) to read as follows:

§ 63.428 Reporting and recordkeeping.

* * * * *

(b) * * *

(1) Annual certification testing performed under § 63.425(e) and railcar bubble leak testing performed under § 63.425(k); and

* * * * *

(3) * * *

(i) Name of test: Annual Certification Test—Method 27 (§ 63.425(e)(1)); Annual Certification Test—Internal Vapor Valve (§ 63.425(e)(2)); Leak Detection Test (§ 63.425(f)); Nitrogen Pressure Decay Field Test (§ 63.425(g)); Continuous Performance Pressure Decay Test (§ 63.425(h)); or Railcar Bubble Leak Test Procedure (§ 63.425(i)).

* * * * *

(viii) Test results: test pressure; pressure or vacuum change, mm of water; time period of test; number of leaks found with instrument; and leak definition.

* * * * *

(k) As an alternative to keeping records at the terminal of each gasoline cargo tank test result as required in paragraph (b) of this section, an owner or operator may comply with the requirements in either paragraph (k)(1) or (2) of this section.

(1) An electronic copy of each record is instantly available at the terminal.

(i) The copy of each record in paragraph (k)(1) of this section is an exact duplicate image of the original paper record with certifying signatures.

(ii) The permitting authority is notified in writing that each terminal using this alternative is in compliance with paragraph (k)(1) of this section.

(2) For facilities that utilize a terminal automation system to prevent gasoline cargo tanks that do not have valid cargo tank vapor tightness documentation from loading (*e.g.*, via a card lock-out system), a copy of the documentation is made available (*e.g.*, via facsimile) for inspection by permitting authority representatives during the course of a site visit, or within a mutually agreeable time frame.

(i) The copy of each record in paragraph (k)(2) of this section is an exact duplicate image of the original paper record with certifying signatures.

(ii) The permitting authority is notified in writing that each terminal using this alternative is in compliance with paragraph (k)(2) of this section.

[FR Doc. 03–31235 Filed 12–18–03; 8:45 am]
BILLING CODE 6560–50–P

Corrections

Federal Register
Vol. 68, No. 248
Monday, December 29, 2003

This section of the FEDERAL REGISTER contains editorial corrections of previously published Presidential, Rule, Proposed Rule, and Notice documents. These corrections are prepared by the Office of the Federal Register. Agency prepared corrections are issued as signed documents and appear in the appropriate document categories elsewhere in the issue.

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[Docket ID No. OAR–2003–0178; FRL–7554–3]

RIN 2060–AK59

National Emission Standards for Hazardous Air Pollutants: Miscellaneous Coating Manufacturing

Correction

In rule document 03–22928 beginning on page 69164 in the issue of Thursday, December 11, 2003, make the following correction:

§63.7995 [Corrected]

On page 69186, in §63.7995(b), in the final line, the date "December 11, 2005," should read, "December 11, 2006."

[FR Doc. C3–22928 Filed 12–24–03; 8:45 am]
BILLING CODE 1505–01–D

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 81

[FRL–7599–7]

RIN 2060–AL85

Deferral of Effective Date of Nonattainment Designations for 8–Hour Ozone National Ambient Air Quality Standards for Early Action Compact Areas

Correction

In proposed rule document 03–31109 beginning on page 70108 in the issue of Tuesday, December 16, 2003, make the following correction:

On page 70119, in the third column, the signature date of "November 11, 2003" should read, "December 11, 2003".

[FR Doc. C3–31109 Filed 12–24–03; 8:45 am]
BILLING CODE 1505–01–D



Federal Register

Friday,
January 2, 2004

Part II

Environmental Protection Agency

40 CFR Part 63
National Emission Standards for Hazardous Air Pollutants: Surface Coating of Miscellaneous Metal Parts and Products; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[OAR–2003–0116–FRL–7549–7]

RIN 2060–AG56

National Emission Standards for Hazardous Air Pollutants: Surface Coating of Miscellaneous Metal Parts and Products

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national emission standards for hazardous air pollutants (NESHAP) for miscellaneous metal parts and products surface coating operations located at major sources of hazardous air pollutants (HAP). The final rule implements section 112(d) of the Clean Air Act (CAA) by requiring these operations to meet HAP emission standards reflecting the application of the maximum achievable control technology (MACT). The final rule will protect air quality and promote the public health by reducing emissions of HAP from facilities in the miscellaneous metal parts and products surface coating source category. The organic HAP emitted by these operations include xylenes, toluene, methyl ethyl ketone (MEK), phenol, cresols/cresylic acid, glycol ethers (including ethylene glycol monobutyl ether (EGBE)), styrene, methyl isobutyl ketone (MIBK), and ethyl benzene. Exposure to these substances has been demonstrated to cause adverse health effects such as irritation of the lung, skin, and mucous membranes, and effects on the central nervous system, liver, and heart. In general, these findings have only been shown with concentrations higher than those typically in the ambient air. The final standards are expected to reduce nationwide organic HAP emissions from major sources in this source category by approximately 48 percent.

EFFECTIVE DATES: The final rule is effective January 2, 2004. The incorporation by reference of certain publications listed in the final rule is approved by the Director of the Federal Register as of January 2, 2004.

ADDRESSES: *Docket.* Docket ID No. OAR–2003–0116 (formerly Docket No. A–97–34) is located at the EPA Docket Center, EPA West (6102T), 1301 Constitution Avenue, NW., Room B–102, Washington, DC 20460.

Background Information Document. A background information document (BID) for the promulgated NESHAP may be obtained from the docket; the U.S. EPA Library (C267–01), Research Triangle Park, NC 27711, telephone (919) 541–2777; or from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, telephone (703) 487–4650. Refer to "National Emission Standards for Hazardous Air Pollutants (NESHAP): Surface Coating of Miscellaneous Metal Parts and Products—Summary of Public Comments and Responses on Proposed Rule" (EPA–453/R–03–008).

FOR FURTHER INFORMATION CONTACT: Ms. Kim Teal, Coatings and Consumer Products Group, Emission Standards Division (C539–03), U.S. EPA, Research Triangle Park, NC 27711; telephone number (919) 541–5580; facsimile number (919) 541–5689; electronic mail address: *teal.kim@epa.gov.*

SUPPLEMENTARY INFORMATION: *Regulated Entities.* The source category definition includes facilities that apply coatings to miscellaneous metal parts and products. In general, facilities that coat miscellaneous metal parts and products are covered under the North American Industrial Classification System (NAICS) codes listed in Table 1. However, facilities classified under other NAICS codes may be subject to the final standards if they meet the applicability criteria. Not all facilities classified under the NAICS codes in the following table will be subject to the final standards because some of the classifications cover products outside the scope of the NESHAP for miscellaneous metal parts and products.

TABLE 1.—CATEGORIES AND ENTITIES POTENTIALLY REGULATED BY THE FINAL RULE

Category	NAICS	Examples of potentially regulated entities
Automobile Parts	335312, 336111, 336211, 336312, 33632, 33633, 33634, 33637, 336399.	Engine parts, vehicle parts and accessories, brakes, axles, etc.
Extruded Aluminum	331316, 331524, 332321, 332323	Extruded aluminum, architectural components, rod, and tubes.
Heavy Equipment	33312, 333611, 333618	Tractors, earth moving machinery.
Job Shops	332312, 332722, 332813, 332991, 332999, 334119, 336413, 339999.	Any of the products from the miscellaneous metal parts and products segments.
Large Trucks and Buses	33612, 336211	Large trucks and buses.
Magnet Wire	331319, 331422, 335929	Magnet wire.
Metal Buildings	332311	Prefabricated metal: buildings, carports, docks, dwellings, greenhouses, panels for buildings.
Metal Containers	33242, 81131, 322214, 326199, 331513, 332439	Drums, kegs, pails, shipping containers.
Metal Pipe and Foundry	331111, 331513, 33121, 331221, 331511	Plate, tube, rods, nails, spikes, etc.
Rail Transportation	33651, 336611, 482111	Brakes, engines, freight cars, locomotives.
Recreational Vehicles	3369, 331316, 336991, 336211, 336112, 336213, 336214, 336399.	Motorcycles, motor homes, semitrailers, truck trailers.
Rubber-to-Metal Products.	326291, 326299	Engine mounts, rubberized tank tread, harmonic balancers.
Structural Steel	332311, 332312	Joists, railway bridge sections, highway bridge sections.
Other Transportation Equipment.	336212, 336999, 33635, 56121, 8111, 56211	Miscellaneous transportation related equipment and parts.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your coating operation is regulated by this action, you should examine the applicability criteria in § 63.3881 of the final rule.

Docket. The EPA has established an official public docket for this action under Docket ID No. OAR–2003–0116 (formerly docket A–97–34). The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, the public docket does not include

Confidential Business Information or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the EPA Docket Center, EPA West, Room B–102, 1301 Constitution Avenue, NW., Washington, DC 20460. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742. A reasonable fee may be charged for copying docket materials.

Electronic Docket Access. You may access this **Federal Register** document electronically through the EPA Internet under the "**Federal Register**" listings at *http://www.epa.gov/fedrgstr.*

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility identified above. Once in the system, select "search," then key in the appropriate docket identification number.

WorldWide Web (WWW). In addition to being available in the docket, an electronic copy of the final rule will be available on the WWW. Following the Administrator's signature, a copy of the final rule will be posted at *http://www.epa.gov/ttn/oarpg* on EPA's Technology Transfer Network (TTN) policy and guidance page for newly proposed or promulgated rules. The TTN provides information and technology exchange in various areas of air pollution control. If more information regarding the TTN is needed, call the TTN HELP line at (919) 541–5384.

Judicial Review. Under section 307(b)(1) of the CAA, judicial review of the final rule is available only by the filing of a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by March 2, 2004. Under section 307(d)(7)(B) of the CAA, only an objection to the rule that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Under section 307(b)(2) of the CAA, the requirements established by the final rule may not be challenged separately in any civil or criminal proceedings brought by EPA to enforce these requirements.

Outline: The following outline is provided to aid in reading the preamble to the final rule:

I. Background
  A. What is the source of authority for development of NESHAP?
  B. What criteria are used in the development of NESHAP?
  C. What are the primary sources of emissions and what are the emissions?
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I. Background

A. What Is the Source of Authority for Development of NESHAP?

Section 112 of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. The Miscellaneous Metal Parts and Products (Surface Coating) category of major sources was listed on July 16, 1992 (57 FR 31576) under the Surface Coating Processes industry group. Major sources of HAP are those that emit or have the potential to emit considering controls equal to or greater than 9.1 megagrams per year (Mg/yr) (10 tons per year (tpy)) of any one HAP or 22.7 Mg/yr (25 tpy) of any combination of HAP.

B. What Criteria Are Used in the Development of NESHAP?

Section 112(c)(2) of the CAA requires that we establish NESHAP for the control of HAP from both new and existing major sources, based upon the criteria set out in section 112(d). The CAA requires the NESHAP to reflect the maximum degree of reduction in emissions of HAP that is achievable, taking into consideration the cost of achieving the emission reduction, any non-air quality health and environmental impacts, and energy requirements. This level of control is commonly referred to as MACT.

The MACT floor is the minimum control level allowed for NESHAP and is defined under section 112(d)(3) of the CAA. In essence, the MACT floor ensures that the standard is set at a level that assures that all major sources achieve the level of control at least as stringent as that already achieved by the better-controlled and lower-emitting sources in each source category or subcategory. For new sources, the MACT floor cannot be less stringent than the emission control that is

achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than standards for new sources, but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources in the category or subcategory (or the best-performing five sources for categories or subcategories with fewer than 30 sources).

In developing the final NESHAP, we considered control options that are more stringent than the MACT floor, taking into account consideration of the cost of achieving the emission reduction, any non-air quality health and environmental impacts, and energy requirements. In the final rule, EPA is promulgating standards for both existing and new sources consistent with these statutory requirements.

C. What Are the Primary Sources of Emissions and What Are the Emissions?

The final NESHAP regulate emissions of organic HAP. Available emission data collected during the development of the final NESHAP show that the primary organic HAP emitted from the surface coating of miscellaneous metal parts and products include xylenes, toluene, MEK, phenol, cresols/cresylic acid, glycol ethers (including EGBE), styrene, MIBK, and ethyl benzene. These compounds account for approximately 90 percent of this category's nationwide organic HAP emissions.

The majority of organic HAP emissions from a facility engaged in miscellaneous metal parts and products surface coating operations can be attributed to the application, drying, and curing of coatings. The remaining emissions are primarily from cleaning operations. In most cases, organic HAP emissions from mixing, storage, and waste handling are relatively small. The organic HAP emissions associated with coatings (the term "coatings" includes protective and decorative coatings as well as adhesives) occur at several points. Coatings are most often applied either by using a spray gun in a spray booth or by dipping the substrate in a tank containing the coating. In a spray booth, volatile components evaporate from the coating as it is applied to the part and from the overspray. The coated part then passes through an open (flash-off) area where additional volatiles evaporate from the coating. Finally, the coated part passes through a drying/curing oven, or is allowed to air dry, where the remaining volatiles are evaporated.

Organic HAP emissions also occur from the activities undertaken during cleaning operations, including paint stripping, where solvent is used to remove coating residue or other unwanted materials. Cleaning in this industry includes cleaning of spray guns and transfer lines (*e.g.*, tubing or piping), tanks, and the interior of spray booths. Cleaning also includes applying solvents to manufactured parts prior to coating application and to equipment (*e.g.*, cleaning rollers, pumps, conveyors, etc.).

Mixing and storage are other sources of emissions. Organic HAP emissions can occur from displacement of organic vapor-laden air in containers used to store HAP solvents or to mix coatings containing HAP solvents. The displacement of vapor-laden air can occur during the filling of containers and can be caused by changes in temperature or barometric pressure, or by agitation during mixing.

D. What Are the Health Effects Associated With Organic HAP Emissions From the Surface Coating of Metal Parts and Products?

The HAP to be controlled with the final rule are associated with a variety of adverse health effects. These adverse health effects include chronic health disorders (*e.g.*, irritation of the lung, eyes, and mucous membranes and effects on the central nervous system) and acute health disorders (*e.g.*, lung irritation and congestion, alimentary effects such as nausea and vomiting, and effects on the central nervous system).

We do not have the type of current detailed data on each of the facilities covered by these emission standards for this source category, and the people living around the facilities, that would be necessary to conduct an analysis to determine the actual population exposures to the organic HAP emitted from these facilities and potential for resultant health effects. Therefore, we do not know the extent to which the adverse health effects described above occur in the populations surrounding these facilities. However, to the extent the adverse effects do occur, the final rule will reduce emissions and subsequent exposures.

II. Summary of the Final Rule

A. What Source Categories and Subcategories Are Affected by the Final Rule?

The final rule applies to you if you own or operate a miscellaneous metal parts and products surface coating facility that is a major source, or is located at a major source, or is part of a major source of HAP emissions. We define a miscellaneous metal parts and products surface coating facility as any facility engaged in the surface coating of any miscellaneous metal part or product. If application of coating to a substrate occurs, then surface coating also includes associated activities, such as surface preparation, cleaning, mixing, and storage. However, these associated activities do not comprise surface coating if the application of coating does not occur. Coating application with handheld, non-refillable aerosol containers, touch-up markers, marking pens, or the application of paper film or plastic film which may be pre-coated with an adhesive by the manufacturer is not a coating operation for the purposes of the final rule.

You will not be subject to the final rule if your miscellaneous metal parts and products surface coating facility is located at an area source. An area source of HAP is any facility that has the potential to emit HAP but is not a major source. You may establish area source status by limiting the source's potential to emit HAP through appropriate mechanisms available through your permitting authority.

The final rule does not apply to surface coating or a coating operation that meets any of the criteria listed below:

- A coating operation conducted at a source where the source uses only coatings, thinners and/or other additives, and cleaning materials that contain no organic HAP, as determined according to the procedures in the final rule.
- Surface coating that occurs at research or laboratory facilities, or is part of janitorial, building, and facility maintenance operations, or that occurs at hobby shops operated for noncommercial purposes.
- Coatings used in volumes of less than 189 liters (50 gallons (gal)) per year, provided that the total volume of coatings exempt does not exceed 946 liters (250 gal) per year at the facility.
- Surface coating of metal parts and products performed on-site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State) or the National Aeronautics and Space Administration (NASA), or the surface coating of military munitions manufactured by or for the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State).
- Surface coating where plastic is extruded onto metal wire or cable or metal parts or products to form a coating.

- Surface coating of metal components of wood furniture that meet the applicability criteria for wood furniture manufacturing (40 CFR part 63, subpart JJ).
- Surface coating of metal components of large appliances that meet the applicability criteria for large appliance surface coating (40 CFR part 63, subpart NNNN).
- Surface coating of metal components of metal furniture that meet the applicability criteria for metal furniture surface coating (40 CFR part 63, subpart RRRR; 68 FR 28606, May 23, 2003).
- Surface coating of metal components of wood building products that meet the applicability criteria for wood building products surface coating (40 CFR part 63, subpart QQQQ; 68 FR 31746, May 28, 2003).
- Surface coating of metal components of aerospace vehicles that meet the applicability criteria for aerospace manufacturing and rework (40 CFR part 63, subpart GG).
- The application of specialty coatings defined in appendix A to 40 CFR part 63, subpart GG to a metal aerospace vehicle or component.
- Surface coating of metal components of ships that meet the applicability criteria for shipbuilding and ship repair (40 CFR part 63, subpart II).
- Surface coating of metal using a web coating process that meets the applicability criteria for paper and other web coating (40 CFR part 63, subpart JJJJ).
- Surface coating of metal using a coil coating process that meets the applicability criteria for metal coil coating (40 CFR part 63, subpart SSSS).
- Surface coating of boats or metal parts of boats (including, but not limited to, the use of assembly adhesives) where the facility meets the applicability criteria for boat manufacturing facilities in the NESHAP for boat manufacturing (40 CFR part 63, subpart VVVV), except where the surface coating of the boat is a metal coating operation performed on personal watercraft or parts of personal watercraft.
- Surface coating of assembled on-road vehicles that meet the applicability criteria for the assembled on-road vehicle subcategory in the NESHAP for the surface coating of plastic parts and products (40 CFR part 63, subpart PPPP).
- Surface coating of metal components of automobiles and light-duty trucks that meet the applicability criteria for automobiles and light-duty trucks surface coating (40 CFR part 63, subpart IIII (scheduled for promulgation in February 2004).

If you perform surface coating of metal parts or products that meet the applicability criteria for both the Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII (scheduled for promulgation in February 2004) and these NESHAP, then you may comply with the requirements of the automobiles and light-duty trucks NESHAP for the surface coating of all your metal parts used in automobile or light-duty truck manufacturing in lieu of complying with each subpart separately.

The final rule contains five subcategories: General use coating, high performance coating, magnet wire coating, rubber-to-metal coating, and extreme performance fluoropolymer coating. The general use subcategory includes all surface coating operations in the miscellaneous metal parts and products source category that are not included in the other four subcategories. This includes operations that coat a wide variety of substrates, surfaces, and types of miscellaneous metal parts and products. It also includes asphalt/coal tar application to metal pipes. High performance coating is any coating that meets the definition of "high performance architectural coating" or "high temperature coating." Magnet wire coatings, commonly referred to as magnet wire enamels, are applied to a continuous strand of wire which will be used to make turns (windings) in electrical devices such as coils, transformers, or motors. Magnet wire coatings provide high dielectric strength and turn-to-turn conductor insulation. This allows the turns of an electrical device to be placed in close proximity to one another which leads to increased coil effectiveness and electrical efficiency. Rubber-to-metal coating is any coating that contains heat-activated polymer systems in either solvent or water that, when applied to metal substrates, dries to a non-tacky surface and reacts chemically with the rubber and metal during a vulcanization process. Extreme performance fluoropolymer coating is a coating based on fluoropolymer resins that typically meets one or more performance criteria that include a nonstick low-energy surface, dry film lubrication, high resistance to chemical attack, extremely wide operating temperature, high electrical insulating properties, or that complies with government or third party specifications for health, safety, reliability, or performance. Each subcategory consists of all coating operations, including associated surface preparation, equipment cleaning, mixing, storage, and waste handling.

B. What Is the Relationship to Other Rules?

Affected sources that meet the applicability criteria in the final miscellaneous metal parts and products rule may also meet the applicability criteria of other coating NESHAP. For example, some facilities that coat plastic and metal parts using the same or different coatings, coating application processes, and conveyance equipment, either simultaneously or at alternative times could be subject to both the Miscellaneous Metal Parts and Products Surface Coating NESHAP and the Plastic Parts and Products Surface Coating NESHAP (40 CFR part 63, subpart PPPP).

In the final rule, we have minimized the burden of complying with multiple surface coating emission limits by offering two alternatives to complying separately with each applicable emission limit. The first alternative allows a facility to have all applicable surface coating operations comply with the emission limit that represents the predominant type of coating activity at that facility. Predominant activity means the coating activity that represents 90 percent or more of the surface coating activities at a facility. For example, if a facility is subject to both the Plastic Parts and Miscellaneous Metal Parts NESHAP and the activities subject to the Miscellaneous Metal Parts NESHAP account for 90 percent or more of the surface coating activity at the facility, then the facility may comply with the emission limitations for miscellaneous metal parts and products for both types of surface coating operations.

The predominant activity alternative may be applied if 90 percent or more of the surface coating is in the general use or magnet wire coating subcategory; however, this alternative is not available where high performance, rubber-to-metal, or extreme performance fluoropolymer coating represents the predominant activity. The emission limits for those three subcategories reflect specialized performance requirements and the need for higher HAP-containing materials. It would not be appropriate to apply emission limits specifically developed for unique performance characteristics to other types of coatings.

You must include all surface coating activities that meet the applicability criteria of a subcategory in a surface coating NESHAP and constitute more than 1 percent of total coating activities. Coating activities that meet the applicability criteria of a subcategory in a surface coating NESHAP but comprise

less than 1 percent of total coating activities need not be included in the determination of predominant activity but they must be included in the compliance calculations.

The second alternative allows a facility to calculate and comply with a facility-specific emission limit for each 12-month rolling average compliance period. The facility would use the relative amount of coating activity subject to each emission limit in each NESHAP to calculate a weighted, or composite, emission limit for that facility. Compliance with that facility-specific emission limit for all surface coating activities included in the facility-specific emission limit constitutes compliance with the emission limits in the Miscellaneous Metal Parts NESHAP, as well as other applicable NESHAP. As with the predominant activity alternative, you must include all surface coating activities that meet the applicability criteria of a subcategory in a surface coating NESHAP and constitute more than 1 percent of total coating activities. Coating activities that meet the applicability criteria of a subcategory in a surface coating NESHAP but comprise less than 1 percent of total coating activities need not be included in the facility-specific emission limit calculation but they must be included in the compliance calculations.

C. What Is the Affected Source?

We define an affected source as a stationary source, a group of stationary sources, or part of a stationary source to which a specific emission standard applies. The final rule defines the affected source as the collection of all operations associated with the surface coating of miscellaneous metal parts and products within each of the five subcategories (general use, high performance, magnet wire, rubber-to-metal, and extreme performance fluoropolymer). If application to a substrate occurs, these operations include preparation of a coating for application (*e.g.*, mixing with thinners); surface preparation of the miscellaneous metal parts and products (including paint stripping and the use of a cleaning material to remove dried coating); coating application and flash-off; drying and/or curing of applied coatings; cleaning of equipment used in surface coating; storage of coatings, thinners and/or other additives, and cleaning materials; and handling and conveyance of waste materials from the surface coating operations. The coating operation does not include the application of coatings using hand-held nonrefillable aerosol containers, touch-up markers, marking pens, or the application of paper film or plastic film that may be pre-coated with an adhesive by the manufacturer.

D. What Are the Emission Limits, Operating Limits, and Other Standards?

Emission Limits. We are limiting organic HAP emissions from each existing affected source using the emission limits in Table 2 of this preamble. For each new or reconstructed affected source, the final emission limits are given in Table 3 of this preamble. For each of the subcategories, the emission limit is expressed as the mass of organic HAP emissions per volume of coating solids used during each 12-month compliance period.

TABLE 2.—EMISSION LIMITS FOR EXISTING AFFECTED SOURCES

Coating type	Emission limit (kilograms HAP/liter of coating solids)	Emission limit (lbs HAP/gal of coating solids)
General use subcategory	0.31	2.6
High performance subcategory	3.3	27.5
Magnet wire subcategory	0.12	1.0
Rubber-to-metal subcategory	4.5	37.7
Extreme performance fluoropolymer subcategory	1.5	12.4

TABLE 3.—EMISSION LIMITS FOR NEW AND RECONSTRUCTED AFFECTED SOURCES

Coating type	Emission limit (kilograms HAP/liter of coating solids)	Emission limit (lbs HAP/gal of coating solids)
General use subcategory	0.23	1.9
High performance subcategory	3.3	27.5
Magnet wire subcategory	0.050	0.44
Rubber-to-metal subcategory	0.81	6.8
Extreme performance fluoropolymer subcategory	1.5	12.4

You may choose from several compliance options in the final rule to achieve the emission limits. You could comply by applying materials (coatings, thinners and/or other additives, and cleaning materials) that meet the emission limits, either individually or collectively, during each compliance period. You could also use a capture system and add-on control device to meet the emission limits. You could also comply by using a combination of both approaches.

Operating Limits. If you reduce emissions by using a capture system and add-on control device (other than a solvent recovery system for which you conduct a liquid-liquid material balance), the operating limits apply to you. These limits are site-specific parameter limits that you determine during the initial performance test of the system. For capture systems that are not permanent total enclosures, you establish average volumetric flow rates or duct static pressure limits for each capture device (or enclosure) in each capture system. For capture systems that are permanent total enclosures, you establish limits on average facial velocity or pressure drop across openings in the enclosure.

For thermal oxidizers, you monitor the combustion temperature. For catalytic oxidizers, you monitor the temperature immediately before and after the catalyst bed, or you monitor the temperature before or after the catalyst bed and implement a site-specific inspection and maintenance plan for the catalytic oxidizer. For regenerative

carbon adsorbers for which you do not conduct a liquid-liquid material balance, you monitor the carbon bed temperature and the amount of steam or nitrogen used to desorb the bed. For condensers, you monitor the outlet gas temperature from the condenser. For concentrators, you monitor the temperature of the desorption gas stream and the pressure drop across the concentrator.

The site-specific parameter limits that you establish must reflect operation of the capture system and control devices during a performance test that demonstrates achievement of the emission limits during representative operating conditions.

Work Practice Standards. If you use an emission capture system and control device for compliance, you must develop and implement a work practice plan to minimize organic HAP emissions from mixing operations; storage tanks and other containers; and handling operations for coatings, thinners and/or other additives, cleaning materials, and waste materials. If your affected source has an existing documented plan that incorporates steps taken to minimize emissions from the aforementioned sources, you may be able to use your existing plan to satisfy the requirement for a work practice plan.

If you use a capture system and control device for compliance, you are required to develop and operate according to a startup, shutdown, and malfunction plan (SSMP) during periods of startup, shutdown, or malfunction of the capture system and control device.

The NESHAP General Provisions (40 CFR part 63, subpart A) codify certain procedures and criteria for all 40 CFR part 63 NESHAP and apply to you as indicated in the final rule. The General Provisions contain administrative procedures, preconstruction review procedures for new sources, and procedures for conducting compliance-related activities such as notifications, reporting and recordkeeping, performance testing, and monitoring. The final rule refers to individual sections of the General Provisions to emphasize key sections that are relevant. However, unless specifically overridden in the final rule, all of the applicable General Provisions requirements apply to you.

E. What Are the Testing and Initial Compliance Requirements?

Existing affected sources must be in compliance with the final rule no later than January 2, 2007. New and reconstructed sources must be in compliance upon initial startup of the affected source or by January 2, 2004, whichever is later. However, affected sources are not required to demonstrate compliance until the end of the initial compliance period when they will have accumulated the necessary records to document the rolling 12-month organic HAP emission rate.

Compliance with the emission limits is based on a rolling 12-month organic HAP emission rate determined each month. Each 12-month period is a compliance period. The initial compliance period, therefore, is the 12-month period beginning on the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period begins on the compliance date and extends through the end of that month plus the following 12 months. In other words, the initial compliance period could be almost 13 months long, but all subsequent compliance periods will be 12 months long. We have defined "month" as a calendar month or a pre-specified period of 28 to 35 days to allow for flexibility at sources where data are based on a business accounting period.

Being "in compliance" means that the owner or operator of the affected source meets the requirements to achieve the final emission limitations during the initial compliance period. However, they will not have accumulated the records for the rolling 12-month organic HAP emission rate until the end of the initial compliance period. At the end of the initial compliance period, the owner or operator uses the data and records generated to determine whether or not the affected source is in compliance with the organic HAP emission limit and other applicable requirements for that period. If the affected source does not meet the applicable limit and other requirements, it is out of compliance for the entire compliance period.

Emission Limits. There are three options for complying with the final emission limits, and the testing and initial compliance requirements vary accordingly. You may choose to use one compliance option for the entire affected source, or you may use different compliance options for different coating operations within the affected source. You may also use different compliance options for the same coating operation at different times, different compliance options when different coatings are applied to the same part, or when the same coating is applied to different parts. However, you may not use different compliance options at the same time on the same coating operation.

Option 1: Compliant materials. This option is a pollution prevention option that allows you to easily demonstrate compliance by using low-HAP or non-HAP coatings and other materials. If you use coatings that, based on their organic HAP content, individually meet the kilogram (kg) (lb) organic HAP emitted per liter (gal) coating solids used levels in the applicable emission limits and you use non-HAP thinners and other additives and cleaning materials, this compliance option is available to you. For this option, we have minimized recordkeeping and reporting requirements. You may demonstrate compliance by using manufacturer's formulation data and readily available purchase records to determine the organic HAP content of each coating or other material and the amount of each material used. You do not need to perform any detailed emission rate calculations.

If you demonstrate compliance based on the coatings and other materials used, you demonstrate that the organic HAP content of each coating meets the emission limits for the appropriate subcategory as shown in Tables 2 and 3 of this preamble, and that you used no organic HAP-containing thinners and/or other additives, or cleaning materials. For example, if you are using the compliant materials option and your existing source has magnet wire, rubber-to-metal, extreme performance fluoropolymer, and general use coating operations, you demonstrate that: (1) Each coating used in the magnet wire coating operation has an organic HAP content no greater than 0.12 kg organic HAP/liter coating solids (1.0 lb organic HAP/gal coating solids) used; (2) each coating used in the rubber-to-metal coating operation has an organic HAP content no greater than 4.5 kg organic HAP/liter coating solids (37.7 lbs organic HAP/gal coating solids) used; (3) each coating used in the extreme performance fluoropolymer coating operation has an organic HAP content no greater than 1.5 kg organic HAP/liter coating solids (12.4 lbs HAP/gal coating solids) used; (4) each general use coating has an organic HAP content no greater than 0.31 kg organic HAP/liter coating solids (2.6 lbs HAP/gal coating solids) used; and (5) that you used no organic HAP-containing thinners and/or other additives, or cleaning materials. Note that "no organic HAP" is not intended to mean absolute zero. Materials that contain "no organic HAP" means materials that contain organic HAP levels below the levels specified in § 63.3941(a) of the final rule, which are typical Occupational

Safety and Health Administration (OSHA) reporting levels for material safety data sheets. These typical reporting levels only count organic HAP that are present at 0.1 percent or more by mass for OSHA-defined carcinogens and at 1.0 percent or more by mass for other compounds.

To determine the mass of organic HAP in coatings, thinners and/or other additives, and cleaning materials and the volume fraction of coating solids, you may rely on manufacturer's formulation data. You are not required to perform tests or analysis of the material if formulation data are available. Alternatively, you could use results from the test methods listed below. You may also use alternative test methods provided you get EPA approval in accordance with the NESHAP General Provisions, 40 CFR 63.7(f). However, if there is any inconsistency between the test method results (either EPA's or an approved alternative) and manufacturer's data, the test method results prevail for compliance and enforcement purposes, unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

The following test methods are used to determine HAP content. For organic HAP content, use Method 311 of 40 CFR part 63, appendix A. You may also use nonaqueous volatile matter as a surrogate for organic HAP, which includes all organic HAP plus all other organic compounds, excluding water. If you choose this option, use Method 24 of 40 CFR part 60, appendix A. If you are determining HAP content for reactive adhesives (that is, adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere), you may use the alternative to Method 24 that is included in 40 CFR part 63, subpart PPPP, appendix A. For determining volume fraction of coating solids, use ASTM Method D2697–86 (Reapproved 1998), "Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings," or ASTM Method D6093–97 (Reapproved 2003), "Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer," an approved alternative method, or calculations based on the volume of the volatile fraction.

Option 2: Compliance based on the emission rate without add-on controls. This option is a pollution prevention option that allows you to demonstrate compliance based on the organic HAP contained in the mix of coatings, thinners and/or other additives, and cleaning materials you use. This option offers the flexibility to use some individual coatings that do not, by themselves, meet the kg (lb) organic HAP emitted per liter (gal) coating solids used levels in the applicable emission limits if you use other low-HAP or non-HAP coatings such that overall emissions from the affected source over a 12-month period meet the emission limits. You must use this option if you use HAP-containing thinners and/or other additives, and cleaning materials and do not have add-on controls. You keep track of the mass of organic HAP in each coating, thinner or other additive, and cleaning material, and the amount of each material you use in your affected source each month of the compliance period. You use this information to determine the total mass of organic HAP in all coatings, thinners and/or other additives, and cleaning materials divided by the total volume of coating solids used during the compliance period. You demonstrate that your emission rate (in kg (lb) organic HAP emitted per liter (gal) coating solids used) meets the applicable emission limit. You may use readily available purchase records and manufacturer's formulation data to determine the amount of each coating or other material you used and the organic HAP in each material. The final rule contains equations that show you how to perform the calculations to demonstrate compliance.

If you demonstrate compliance using Option 2, you are required to:

- Determine the quantity of each coating, thinner and/or other additive, and cleaning material used.
- Determine the mass of organic HAP in each coating, thinner and other additive, and cleaning material using the same types of data and methods previously described for Option 1, including the alternative methods for reactive coatings. You may rely on manufacturer's formulation data or you may choose to use test results as described under Option 1.
- Determine the volume fraction of coating solids for each coating using the same types of data or methods described under Option 1. In this option, you may include the solids from powder coatings in the compliance calculations. To determine the volume of solids in powder coatings from their weight, use ASTM Method D5965–02, "Standard Test Method for Specific Gravity of Coating Powders."
- Calculate the total mass of organic HAP in all materials and total volume of coating solids used each month. You may subtract from the total mass of organic HAP the amount contained in waste materials you send to a hazardous waste treatment, storage, and disposal facility regulated under 40 CFR part 262, 264, 265, or 266.
- Calculate the total mass of organic HAP emissions and total volume of coating solids used for the initial compliance period by adding together all the monthly values for mass of organic HAP and for volume of coating solids used for the 12 months of the initial compliance period.
- Calculate the ratio of the total mass of organic HAP emitted for the materials used to the total volume of coating solids used (kg (lb) organic HAP emitted per liter (gal) of coating solids used) for the initial compliance period.
- Record the calculations and results and include them in your Notification of Compliance Status.

Note that if you choose to use this option for a particular coating operation rather than for all coating operations at the source, you calculate the organic HAP emission rate using just the materials used in that operation. Similarly, if your facility has multiple coating operations using this option (*e.g.*, a high performance coating operation, a magnet wire coating operation, a rubber-to-metal coating operation, and a general use coating operation), you do a separate calculation for each coating operation to show that each coating operation meets its emission limit. If you are complying with a facility-specific emission limit, you include all coating operations that are subject to the facility-specific emission limit in the compliance calculations.

Option 3: Compliance based on using a capture system and add-on control device. This option allows sources to use a capture system and an add-on pollution control device, such as a combustion device or a recovery device, to meet the emission limits. While we believe that, based on typical emission characteristics, most sources will not use control devices, we are providing this option for sources that use control devices. Fewer than 10 percent of the existing sources for which we have data use control devices. Under this option, testing is required to demonstrate the capture system and control device efficiencies. Alternatively, you may conduct a liquid-liquid material balance to demonstrate the amount of organic HAP collected by your recovery device. The final rule provides equations showing you how to use records of materials usage, organic HAP contents of each material, capture and control efficiencies, and coating solids content to calculate your emission rate during the compliance period.

If you demonstrate compliance based on this option, you demonstrate that your emission rate considering controls (in kg (lb) organic HAP emitted per liter (gal) of coating solids used) is less than the applicable emission limit. For a capture system and add-on control device, other than a solvent recovery system for which you conduct a liquid-liquid material balance, your testing and initial compliance requirements are as follows:

- Conduct an initial performance test to determine the capture and control efficiencies of the equipment and to establish operating limits to be achieved on a continuous basis. The performance test must be completed no later than the compliance date for existing sources and 180 days after the compliance date for new and reconstructed sources.
- Determine the mass of organic HAP in each coating and other material, and the volume fraction of coating solids for each coating used during each month of the initial compliance period.
- Calculate the total mass of organic HAP in all coatings and other materials, and total volume of coating solids used each month in the controlled operation or group of coating operations. You may subtract from the total mass of organic HAP the amount contained in waste materials you send to a hazardous waste treatment, storage, and disposal facility regulated under 40 CFR part 262, 264, 265, or 266.
- Calculate the organic HAP emissions from the controlled coating operations each month using the capture and control efficiencies determined during the performance test, and the total mass of organic HAP in materials used in controlled coating operations that month.
- Calculate the total mass of organic HAP emissions and total volume of coating solids used for the initial compliance period by adding together all the monthly values for mass of organic HAP emissions and for volume of coating solids for the 12 months in the initial compliance period.
- Calculate the ratio of the total mass of organic HAP emissions to the total volume of coating solids used during the initial compliance period.
- Record the calculations and results and include them in your Notification of Compliance Status.
- Develop and implement a work practice plan to minimize emissions from storage, mixing, and handling of organic HAP-containing materials.

Note that if you choose to use this option for a particular coating operation rather than for the entire affected source, you calculate the organic HAP emission rate using just the materials used in that operation. Similarly, if your facility has multiple coating operations using this option (*e.g.*, a high performance coating operation, a rubber-to-metal coating operation, an extreme performance fluoropolymer coating operation, and a general use coating operation), you do a separate calculation for each coating operation to show that each coating operation meets its emission limit. If you are complying with a facility-specific emission limit, you would include all coating operations that are subject to the facility-specific emission limit in the compliance calculations.

If you use a capture system and add-on control device, other than a solvent recovery system for which you conduct liquid-liquid material balances, you use specified test methods to determine both the efficiency of the capture system and the emission reduction efficiency of the control device. To determine the capture efficiency, you would either verify the presence of a permanent total enclosure using EPA Method 204 of 40 CFR part 51, appendix M (and all materials must be applied and dried within the enclosure); or use one of three protocols in § 63.3965 of the final rule to measure capture efficiency. If you have a permanent total enclosure and all materials are applied and dried within the enclosure and you route all exhaust gases from the enclosure to a control device, you assume 100 percent capture. Magnet wire coating operations may, with approval, conduct representative capture efficiency testing of one magnet wire coating machine out of a group of identical or very similar magnet wire coating machines rather than testing every individual magnet wire coating machine.

To determine the emission reduction efficiency of the control device, you conduct measurements of the inlet and outlet gas streams. The test consists of three runs, each run lasting 1 hour, using the following EPA Methods in 40 CFR part 60, appendix A:

- Method 1 or 1A for selection of the sampling sites.
- Method 2, 2A, 2C, 2D, 2F, or 2G to determine the gas volumetric flow rate.
- Method 3, 3A, or 3B for gas analysis to determine dry molecular weight.
- Method 4 to determine stack moisture.
- Method 25 or 25A to determine organic volatile matter concentration. Alternatively, any other test method or data that have been validated according to the applicable procedures in Method 301 of 40 CFR part 63, appendix A, and approved by the Administrator, could be used.

An alternative procedure is provided in appendix A of the final rule for determining the destruction efficiency of oxidizers used to control emissions from magnet wire coating machines. This procedure uses material consumption and material organic volatile content, adjusted to account for any uncaptured emissions, to determine the organic volatile content of the inlet stream to the control device. Magnet wire coating operations may, with approval, conduct representative control device efficiency testing of one magnet wire coating machine out of a group of identical or very similar magnet wire coating machines rather than testing every individual magnet wire coating machine.

If you use a solvent recovery system, you could choose to determine the overall control efficiency using a liquid-liquid material balance instead of conducting an initial performance test. If you use the material balance alternative, you are required to measure the amount of all materials used in the controlled coating operations served by the solvent recovery system during each month of the initial compliance period, and to determine the total volatile matter contained in these materials. You also measure the amount of volatile matter recovered by the solvent recovery system during each month of the initial compliance period. Then you compare the amount recovered to the amount used to determine the overall control efficiency each month and apply this efficiency to the total mass of organic HAP in the materials used to determine total organic HAP emissions for the month. You total these 12 monthly organic HAP emission values and divide by the total of the 12 monthly values for coating solids used to calculate the emission rate for the 12-month initial compliance period. You record the calculations and results and include them in your Notification of Compliance Status.

Operating Limits. As mentioned above, you establish operating limits as part of the initial performance test of a capture system and control device, other than a solvent recovery system for which you conduct liquid-liquid material balances. The operating limits are the minimum or maximum (as applicable) values achieved for capture systems and control devices during the most recent performance test, conducted under representative conditions, that demonstrated compliance with the emission limits.

The final rule specifies the parameters to monitor for the types of emission control systems commonly used in the industry. You are required to install,

calibrate, maintain, and continuously operate all monitoring equipment according to manufacturer's specifications and ensure that the continuous parameter monitoring systems (CPMS) meet the requirements in § 63.3968 of the final rule. If you use control devices other than those identified in the final rule, you submit the operating parameters to be monitored to the Administrator for approval. The authority to approve the parameters to be monitored is retained by EPA and is not delegated to States.

If you use a thermal or catalytic oxidizer, you continuously monitor the appropriate temperature and record it at least every 15 minutes. For thermal oxidizers, the temperature monitor is placed in the firebox or in the duct immediately downstream of the firebox before any substantial heat exchange occurs. The operating limit is the average temperature measured during the performance test and for each consecutive 3-hour period; the average temperature has to be at or above this limit. For catalytic oxidizers, temperature monitors are placed immediately before and after the catalyst bed. The operating limits are the average temperature just before the catalyst bed and the average temperature difference across the catalyst bed during the performance test. For each 3-hour period, the average temperature and the average temperature difference must be at or above these limits. Alternatively, if you develop and implement an inspection and maintenance plan for the catalytic oxidizer, then you are allowed to monitor only the temperature before the catalyst bed and meet only the temperature operating limit before the catalyst bed and are not required to monitor the difference across the bed.

An alternative procedure for monitoring catalytic oxidizers on magnet wire coating machines is provided in appendix A of the final rule. This alternative allows you to develop and implement an inspection and maintenance plan as described in appendix A of the final rule and to measure the temperature either before or after the catalyst bed and compare the measured temperature to the operating limit.

If you use a regenerative carbon adsorber and do not conduct liquid-liquid material balances to demonstrate compliance, you monitor the carbon bed temperature after each regeneration and the total amount of steam or nitrogen used to desorb the bed for each regeneration. The operating limits are the carbon bed temperature at the time the carbon bed is returned to service (not to be exceeded) and the amount of steam or nitrogen used for desorption (to be met as a minimum).

If you use a condenser and do not conduct liquid-liquid material balances to demonstrate compliance, you monitor the outlet gas temperature to ensure that the air stream is being cooled to a low enough temperature. The operating limit is the average condenser outlet gas temperature measured during the performance test and for each consecutive 3-hour period, the average temperature must be at or below this limit.

If you use a concentrator, you monitor the temperature of the desorption concentrate stream and the pressure drop across the concentrator. These values must be recorded at least once every 15 minutes. The operating limits must be the 3-hour average temperature (to be met as a minimum) and the 3-hour average pressure drop (to be met as a minimum) measured during the performance test.

For each capture system that is not a permanent total enclosure, you establish operating limits for gas volumetric flow rate or duct static pressure for each enclosure or capture device. The operating limit is the average volumetric flow rate or duct static pressure during the performance test, to be met as a minimum. For each capture system that is a permanent total enclosure, the operating limit requires the average facial velocity of air through all natural draft openings to be at least 200 feet per minute or the pressure drop across the enclosure to be at least 0.007 inches water.

An alternative procedure for monitoring capture systems on magnet wire coating machines is provided in appendix A of this rule. This alternative requires you to install an alarm or interlock which will be triggered either when any oven exhaust fan is not operating or the oven is overheating. This alternative also requires you to confirm every 6 months that the oven is operating at negative pressure.

Work Practices. If you use a capture system and control device for compliance, you are required to develop and implement on an ongoing basis a work practice plan for minimizing organic HAP emissions from storage, mixing, material handling, and waste handling operations. This plan must include a description of all steps taken to minimize emissions from these sources (*e.g.*, using closed storage containers, practices to minimize emissions during filling and transfer of contents from containers, using spill minimization techniques, placing solvent-laden cloths in closed containers immediately after use, etc.). You must make the plan available for inspection if the Administrator requests to see it.

If you use a capture system and control device for compliance, you are required to develop and operate according to a SSMP during periods of startup, shutdown, or malfunction of the capture system and control device.

F. What Are the Continuous Compliance Provisions?

Emission Limits. If you use the compliant materials option (Option 1), you demonstrate continuous compliance if each coating meets the applicable emission limit and you use no organic HAP-containing thinners and/or other additives, or cleaning materials. If you use the emission rate without add-on controls option (Option 2), you demonstrate continuous compliance if, for each 12-month compliance period, the ratio of kg (lb) organic HAP emitted to liter (gal) coating solids used is less than or equal to the applicable emission limit. You follow the same procedures for calculating the organic HAP emitted to coating solids used ratio that you used for the initial compliance period.

For each coating operation on which you use a capture system and control device (Option 3), other than a solvent recovery system for which you conduct a liquid-liquid material balance, you use the continuous parameter monitoring results for the month as part of the determination of the mass of organic HAP emissions. If the monitoring results indicate no deviations from the operating limits and there were no bypasses of the control device, you assume the capture system and control device are achieving the same percent emission reduction efficiency as they did during the most recent performance test in which compliance was demonstrated. You then apply this percent reduction to the total mass of organic HAP in materials used in the controlled coating operations to determine the emissions from those operations during the month. If there were any deviations from the operating limits during the month or any bypasses of the control device, you account for them in the calculation of the monthly emissions by assuming the capture system and control device were achieving zero emission reduction during the periods of deviation, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device, and the use of these data is approved by your permitting authority. Determine the organic HAP emission rate by

dividing the total mass of organic HAP emissions for the 12-month compliance period by the total volume of coating solids used during the 12-month compliance period. Every month, you calculate the emission rate for the previous 12-month period.

For each coating operation on which you use a solvent recovery system and conduct a liquid-liquid material balance each month, you use the liquid-liquid material balance to determine control efficiency. To determine the overall control efficiency, you must measure the amount of all materials used during each month and determine the volatile matter content of these materials. You must also measure the amount of volatile matter recovered by the solvent recovery system during the month, calculate the overall control efficiency, and apply it to the total mass of organic HAP in the materials used to determine total organic HAP emissions each month. Then you determine the 12-month organic HAP emission rate in the same manner described above.

Operating Limits. If you use a capture system and control device, the final rule requires you to achieve on a continuous basis the operating limits you establish during the performance test. If the continuous monitoring shows that the capture system and control device are operating outside the range of values established during the performance test, you have deviated from the established operating limits.

If you operate a capture system and control device with bypass lines that could allow emissions to bypass the control device, you demonstrate that captured organic HAP emissions within the affected source are being routed to the control device by monitoring for potential bypass of the control device. You may choose from the following five monitoring procedures:

- Flow control position indicator to provide a record of whether the exhaust stream is directed to the control device.
- Car-seal or lock-and-key valve closures to secure the bypass line valve in the closed position when the control device is operating.
- Valve closure monitoring to ensure any bypass line valve or damper is closed when the control device is operating.
- Automatic shutdown system to stop the coating operation when flow is diverted from the control device.
- Flow direction indicator to provide a record of whether the exhaust stream is flowing toward the control device.

A deviation would occur for any period of time the bypass monitoring indicates that emissions are not routed to the control device.

Work Practices. If you use an emission capture system and control device for compliance, you are required to implement, on an ongoing basis, the work practice plan you developed during the initial compliance period. If you did not develop a plan for reducing organic HAP emissions or you do not implement the plan, this would be a deviation from the work practice standard.

If you use a capture system and control device for compliance, you are required to operate according to your SSMP during periods of startup, shutdown, or malfunction of the capture system and control device.

G. What Are the Notification, Recordkeeping, and Reporting Requirements?

You are required to comply with the applicable requirements in the NESHAP General Provisions, subpart A of 40 CFR part 63, as described in the final rule. The General Provisions notification requirements include: initial notifications, notification of performance test if you are complying using a capture system and control device, notification of compliance status, and additional notifications required for affected sources with continuous monitoring systems. The General Provisions also require certain records and periodic reports.

Initial Notifications. If you own or operate an existing affected source, you must send a notification to the EPA Regional Office in the region where your facility is located and to your State agency no later than 1 year after publication of the final rule in the **Federal Register**. For new and reconstructed sources, you must send the notification within 120 days after the date of initial startup or 120 days after publication of the final rule, whichever is later. That report notifies us and your State agency that you have an existing affected source that is subject to the final standards or that you have constructed a new affected source. Thus, it allows you and the permitting authority to plan for compliance activities. You also need to send a notification of planned construction or reconstruction of a source that would be subject to the final rule and apply for approval to construct or reconstruct.

Notification of Performance Test. If you demonstrate compliance by using a capture system and control device for which you do not conduct a liquid-liquid material balance, you must conduct a performance test. The performance test is required no later than the compliance date for an existing affected source. For a new or reconstructed affected source, the performance test is required no later than 180 days after startup or 180 days after **Federal Register** publication of the final rule, whichever is later. You must notify EPA (or the delegated State or local agency) at least 60 calendar days before the performance test is scheduled to begin and submit a report of the performance test results no later than 60 days after the test.

Notification of Compliance Status. You must submit a Notification of Compliance Status within 30 days after the end of the initial 12-month compliance period. In the notification, you must certify whether each affected source has complied with the final standards; identify the option(s) you used to demonstrate initial compliance; summarize the data and calculations supporting the compliance demonstration; and provide information on any deviations from the emission limits, operating limits, or other requirements.

If you elect to comply by using a capture system and control device for which you conduct performance tests, you must provide the results of the tests. Your notification must also include the measured range of each monitored parameter, the operating limits established during the performance test, and information showing whether the source has complied with its operating limits during the initial compliance period.

If you are complying with a single emission limit representing the predominant surface coating activity under § 63.3890(c)(1) of the final rule, include all calculations and supporting documentation for the predominant activity determination. If you are complying with a facility-specific emission limit under § 63.3890(c)(2) of the final rule, include the calculation of the facility-specific emission limit and any supporting information.

Recordkeeping Requirements. You must keep records of reported information and all other information necessary to document compliance with the final rule for 5 years. As required under the General Provisions, records for the 2 most recent years must be kept on-site or be readily accessible from the site (for example, by a computer network); the other 3 years' records may be kept off-site. Records pertaining to the design and operation of the control and monitoring equipment must be kept for the life of the equipment.

Depending on the compliance option that you choose, you may need to keep records of the following:

- Organic HAP content or volatile organic matter content and coating

solids content (for all compliance options).

• Quantity of the coatings, thinners and/or other additives, and cleaning materials used during each compliance period. If you are using the compliant material option for all coatings at the source, you may maintain purchase records for each material used rather than a record of the volume used.

• For the emission rate (with or without add-on controls) compliance options, calculations of your emission rate for each 12-month compliance period.

• All documentation supporting initial notifications and notifications of compliance status.

If you demonstrate compliance by using a capture system and control device, you must keep records of the following:

• All required measurements, calculations, and supporting documentation needed to demonstrate compliance with the standards.

• All results of performance tests and parameter monitoring.

• All information necessary to demonstrate conformance with your plan for minimizing emissions from mixing, storage, and waste handling operations.

• All information necessary to demonstrate conformance with the affected source's SSMP when the plan procedures are followed.

• The occurrence and duration of each startup, shutdown, or malfunction of the emission capture system and control device.

• Actions taken during startup, shutdown, and malfunction that are different from the procedures specified in the affected source's SSMP.

• Each period during which a CPMS is malfunctioning or inoperative (including out-of-control periods).

The final rule requires you to collect and keep records according to certain minimum data requirements for the CPMS. Failure to collect and keep the specified minimum data would be a deviation that is separate from any emission limits, operating limits, or work practice standards.

Deviations, as determined from these records, must be recorded and also reported. A deviation is any instance when any requirement or obligation established by the final rule including, but not limited to, the emission limits, operating limits, and work practice standards, is not met.

If you use a capture system and control device to reduce organic HAP emissions, you must make your SSMP available for inspection if the Administrator requests to see it. The plan stays in your records for the life of the affected source or until the source is no longer subject to the final standards. If you revise the plan, you must keep the previous superseded versions on record for 5 years following the revision.

If you are using the predominant activity or facility-specific emission limit alternative, you must keep the records of the data and calculations needed to determine the predominant activity or to calculate the facility-specific emission limit for your facility.

Periodic Reports. Each reporting year is divided into two semiannual reporting periods. If no deviations occur during a semiannual reporting period, you submit a semiannual report stating that the affected source has been in continuous compliance. If deviations occur, you include them in the report as follows:

• Report each deviation from the emission limit.

• Report each deviation from the work practice standards if you use an emission capture system and control device.

• If you use an emission capture system and control device, other than a solvent recovery system for which you conduct liquid-liquid material balances, report each deviation from an operating limit and each time a bypass line diverts emissions from the control device to the atmosphere.

• Report other specific information on the periods of time the deviations occurred.

You also have to include in each semiannual report an identification of the compliance option(s) you used for each affected source and any time periods when you changed to another compliance option.

Other Reports. You are required to submit reports for periods of startup, shutdown, or malfunction of the capture system and control device. If the procedures you follow during any startup, shutdown, or malfunction are inconsistent with your SSMP, you report those procedures with your semiannual reports in addition to immediate reports required by 40 CFR 63.10(d)(5)(ii).

III. What Are the Significant Differences From Proposal?

A. Applicability

We have revised the applicability section to clarify who is subject to the final rule. Specifically, the section includes activities associated with coating operations such as surface preparation, cleaning, mixing, and storage as long as these activities are associated with coating application at the facility.

We have included an extreme performance fluoropolymer coatings subcategory in the final rule. This new subcategory establishes a specific emission limit for coatings that are formulated systems based on fluoropolymer resins, which often contain "bonding" matrix polymers dissolved in nonaqueous solvents as well as other ingredients. Extreme performance fluoropolymer coatings are typically used when one or more critical performance criteria are required including, but not limited to, a nonstick low-energy surface, dry film lubrication, high resistance to chemical attack, extremely wide operating temperature, high electrical insulating properties, or that the surface complies with government (*e.g.*, U.S. Department of Agriculture, Food and Drug Administration (FDA)) or third party specifications for health, safety, reliability, or performance.

We have revised the scope of the high performance subcategory to remove "military combat, tactical, and munitions coating" from the definition of high performance coating. As indicated in this preamble, the surface coating of metal parts and products performed on-site at installations owned or operated by the Armed Forces of the United States, or the surface coating of military munitions manufactured by or for the Armed Forces of the United States, will be addressed in the NESHAP for defense land systems and miscellaneous equipment that is currently under development.

We have clarified that when determining whether your facility is below the applicability threshold, you may exclude coatings that meet the definition of non-HAP coating when determining whether you use 946 liters (250 gal) per year, or more, of coatings in the surface coating of miscellaneous metal parts and products (§ 63.3881(b) of the final rule). Thus, a facility using mostly non-HAP coatings and less than 250 gal per year of HAP-containing coatings will not be subject to the final rule. In addition, we have included a definition of "non-HAP coating" in the final rule.

B. Scope of Category

We have clarified the scope of the final rule to exclude surface coating operations using only coatings, thinners and other additives, and cleaning materials that contain no organic HAP. We also excluded surface coating of metal that is subject to several other NESHAP. We also included a provision that allows sources that meet the applicability criteria of both the final rule and the automobiles and light-duty

trucks NESHAP to comply with the automobiles and light-duty trucks NESHAP for all their surface coating operations associated with the manufacturing of automobiles or light-duty trucks in lieu of complying with each subpart separately.

C. Emission Limits

The emission limits remain as proposed, except for the addition of the extreme performance fluoropolymer subcategory, which must limit organic HAP emissions to no more than 1.5 kg organic HAP/liter coating solids (12.4 lbs HAP/gal coating solids) used during each 12-month compliance period.

D. Method for Determining HAP Content

In the final rule, we have included a method for determining the HAP content for reactive adhesives based on the HAP actually emitted, rather than determining the mass fraction of organic HAP in the coatings using Method 311 or Method 24. Facilities may use the alternative method for reactive adhesives contained in appendix A to the final rule for plastic parts and products. In addition, we included a provision for reactive adhesives to allow facilities to rely on manufacturer's data that expressly states the organic HAP mass fraction emitted.

We have included an option to calculate the volume fraction of coating solids based on the mass fraction and density of the volatile compounds in the coating. This method is an alternative to using ASTM Method D2697–86 (Reapproved 1998), "Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings," or ASTM Method D6093–97 (Reapproved 2003), "Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer," to measure the volume solids.

We have also included a method, ASTM Method D5965–02, "Standard Test Method for Specific Gravity of Coating Powders," to determine the density of powder coatings if a facility chooses to include the solids from powder coatings in their compliance calculations.

E. Deviations From Operating Parameters

The proposed rule stated that if your add-on control system deviates from the operating limit specified in Table 1 to subpart MMMM of 40 CFR part 63, then you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation. We have written the final rule to allow the use of other data to indicate the actual efficiency of the emission capture system and add-on control device, as long as the use of these data is approved by the respective permitting authority.

F. New Alternatives To Facilitate Compliance With Multiple Coating NESHAP and Multiple Emission Limits

The final rule allows facilities subject to more than one surface coating emission limit to comply with each applicable emission limit separately or to adopt one of two alternatives. The first alternative allows all coating operations to comply with the emission limit representing the predominant surface coating activity at the facility (the predominant activity means the surface coating activity representing 90 percent or more of the total surface coating activity). The predominant activity approach is also available for sources that are subject to more than one subcategory emission limit. That is, a source may determine which subcategory represents 90 percent or more of the coating activities that take place at the facility, and then have all coating operations at the facility comply with the emission limit that represents the predominant activity.

The second alternative allows a facility to comply with a facility-specific emission limit calculated from the relative amount of coating activity that is subject to individual emission limits. The facility-specific emission limit may include separate emission limits from one or more applicable NESHAP.

You must include all surface coating activities that meet the applicability criteria of a subcategory in a surface coating NESHAP and constitute more than 1 percent of total coating activities. Coating activities that meet the applicability criteria of a subcategory in a surface coating NESHAP but comprise less than 1 percent of total coating activities need not be included in the facility-specific emission limit calculation but they must be included in the compliance calculations.

Another approach that you may use is the equivalency by permit option in 40 CFR part 63, subpart E (§ 63.94). Under this approach, you may design an emissions control program that is suited for your process or plant as long as you can demonstrate that your program will achieve the same emissions reductions as the NESHAP. You must then work with your State, local, or tribal air pollution control agency to submit an equivalency demonstration. This equivalency demonstration will be reviewed by the appropriate EPA Regional Office. The equivalency demonstration is approved as part of the operating permit approval process. For more information, please see the section 112(l) website at *http://www.epa.gov/ttn/atw/112(l)/112-lpg.html.*

G. Initial and Continuous Compliance Demonstrations for Magnet Wire Sources

In the final rule we have provided alternative testing and monitoring requirements for magnet wire coating operations. These alternative requirements are presented in appendix A to this rule.

An alternative procedure is provided for determining the destruction efficiency of oxidizers used to control emissions from magnet wire coating machines. This procedure uses material consumption and material organic volatile content, adjusted to account for any uncaptured emissions, to determine the organic volatile content of the inlet stream to the control device.

In addition, magnet wire coating operations may, with approval, conduct representative capture efficiency and control device efficiency testing of one magnet wire coating machine out of a group of identical or very similar magnet wire coating machines rather than testing every individual magnet wire coating machine.

An alternative procedure is provided for monitoring capture systems on magnet wire coating machines. This alternative requires you to install an alarm or interlock which will be triggered either when any oven exhaust fan is not operating or the oven is overheating. This alternative also requires you to confirm every 6 months that the oven is operating at negative pressure.

An alternative procedure is provided for monitoring catalytic oxidizers on magnet wire coating machines. This alternative allows you to develop and implement an inspection and maintenance plan as described in appendix A to this rule and to measure the temperature either before or after the catalyst bed and compare the measured temperature to the operating limit. In addition to the inspection and maintenance plan, you must either perform periodic catalyst activity checks, or check the concentration of organic compounds in the oven exhaust.

IV. What Are the Responses to Significant Comments?

For the full set of comment summaries and responses, refer to the BID ("National Emission Standards for Hazardous Air Pollutants: Surface Coating of Miscellaneous Metal Parts and Products," August 2003, EPA–453/R–03–008), which contains EPA's

responses to each public comment and is available in Docket ID No. OAR–2002–0116 (formerly Docket No. A–97–34).

A. Applicability and Scope of Source Category

Comment: Two commenters requested that powder coatings be specifically excluded from the final rule. One commenter stated that powder coatings typically have no HAP or trace amounts of HAP that would easily comply with the emission limits. One commenter stated that powder coating operations should not be subject to a recordkeeping and reporting burden that would have no resulting environmental benefit. One commenter suggested that including powder coatings would reduce "expected" HAP reductions from these NESHAP and that averaging could be limited to liquid coatings only.

Response: Powder coatings are included in the definition of a coating in the final rule. However, if a source is using only powder coating or powder coating and less than 250 gal of HAP-containing coating, it would be excluded from all rule requirements based on the use of non-HAP coating and less than 250 gal of HAP-containing coating. If a source is using greater than 250 gal of HAP-containing coating and also has a powder coating line, it may choose to comply with the compliant material option for the powder coating line. The records necessary to demonstrate compliance with the compliant material option are significantly less than required under one of the emission rate options. Alternatively, if a source chooses to use either of the emission rate options, powder coatings may be included in the compliance calculations for the emission rate options. Inclusion of powder coatings in the compliance calculations was intended to serve as an incentive for sources to use powder coatings in reducing their overall emission level. We expect that increased use of powder coatings will promote this technology as a pollution prevention alternative and will result in greater emission reductions than if powder coatings were specifically excluded from compliance calculations. If a source chooses to omit powder coatings from the compliance calculations, the source could document that the powder coatings are in compliance under the compliant materials option since powder coatings are essentially 100 percent solids.

Comment: Several commenters requested that EPA revise the definition of "protective oil" to clarify whether specific materials cited by the commenters are considered protective oils. One commenter requested that EPA revise the definition of protective oil to clarify that protective oils include three specific coatings: temporary protective coatings on metal products to protect them from rust and corrosion during shipment and storage but that leave a soft removable solid film, magnet wire lubrication that is put on the wire before it is wound on a spool and forms a wax film, and bar seal lubrication that prevents hand gloves from sticking to generator parts during taping.

Another commenter requested that EPA modify the definition of protective oil to specifically include carrier solvents. The commenter claimed that skin lubricants used on hypodermic needles do not meet the definition of a coating because they do not cure and form a solid film. The commenter stated that the skin lubricant is a viscous liquid that uses a HAP as a carrier and remains liquid after the HAP evaporates.

Another commenter requested that aqueous-based rust inhibitors should not be considered coatings under the final rule and that this should be clarified in the definition of "coating." The commenter contended that the rule as proposed currently exempts protective oil-type rust inhibitors and should also exempt aqueous-based materials used for the same purpose.

Response: We agree with the commenters that the definition of protective oils should be written to include those oils that include a carrier solvent and that do not form a solid film (*e.g.*, skin lubricants on hypodermic needles). The definition of protective oils has also been written to include magnet wire lubrication and soft temporary protective coatings that are removed prior to installation or further assembly of a part or component. Those materials that do not form a solid film are not typically considered coatings. Aqueous rust inhibitors, which are typically acids or bases, are already excluded from the definition of coating as acids or bases.

We do not feel it is necessary to specifically include bar seal lubricants used to prevent hand gloves from sticking to generator parts during taping. This is a specific process using the bar seal lubricant in a way that qualifies as a protective oil by providing lubrication.

Comment: Two commenters asked for clarification on whether non-HAP coatings should be included in determining whether a facility is subject to the final rule. The commenters noted that § 63.3881(c)(5) of the proposed rule exempts coatings used in amounts of less than 50 gal per year, provided the total amount that is exempt does not exceed 250 gal per year. The commenters asked, for example, whether a facility using 10,000 gal of non-HAP coating and less than 50 gal each of several other HAP-containing coatings totaling less than 250 gal per year would be subject to the final rule.

Response: In response to comment, we have written the final rule to clearly state that the use of non-HAP materials (as defined in the final rule) does not count toward the 250 gal applicability threshold in the final rule. This would avoid a situation where a source would be subject to the final rule even though it was using primarily non-HAP coatings and less than 250 gal per year of HAP-containing coatings. Because the purpose of the final rule is to control HAP, we agree that it is appropriate to consider only HAP-containing coatings in determining whether a source meets the applicability threshold. The final rule includes a definition of non-HAP coating, which is a coating containing less than 0.1 percent by weight of each individual organic HAP that is an OSHA-defined carcinogen and less than 1.0 percent by weight of all other individual HAP.

Comment: Several commenters requested clarification on the exemption for facility maintenance surface coating operations. One commenter requested clarification that surface coating of equipment and tools used to manufacture parts and products are not covered by the final rule. The commenter noted that miscellaneous metal parts and products are defined as including "industrial machinery" and "other industrial products." The commenter requested that an additional paragraph be added to § 63.3881(c) of the final rule to clarify that surface coating of manufacturing equipment, metal molds, and tools are not covered except when these tools are sold or otherwise put into interstate commerce. The commenter requested the definition of facility maintenance state that the repair of metal molds is specifically cited as facility maintenance.

A second commenter stated that it is unclear if the rule as proposed applies to refurbishment activities and maintenance coating of existing metal parts, or if the rule as proposed is intended to apply only to "new" metal parts produced for sale. The commenter noted that some maintenance activities conducted at facilities include coating metal equipment and parts that are not part of the infrastructure of the affected facility, such as trucks or other transport vessels for raw materials or products.

One commenter requested clarification that coating activities at industrial sites to maintain the

structural and operational integrity of process equipment are not covered by the final rule. Many industries coat new and existing support structures, piping, and equipment as part of routine maintenance activities, but they do not produce and coat metal parts for commercial sale.

Two commenters requested that repainting of refillable gas cylinders for the delivery of industrial gases should be considered facility maintenance and not covered by the final rule. One commenter argued that the gas cylinders are transferred back and forth to the customer and that the principal activity of the facility is the delivery of gases and not the repainting of cylinders. Another commenter stated that the final rule should apply only to facilities for which surface coating is the "principal activity," rather than merely discussing this applicability in the preamble.

Another commenter requested the facility maintenance exemption for surface coating on tools and equipment also apply to tools used occasionally off-site. Another commenter requested that EPA expand the definition of facility maintenance to include the fabrication and coating of equipment needed to support the function of the facility (*e.g.*, equipment required for supporting, holding, or reaching aircraft or aircraft parts and components).

Response: The EPA agrees that the surface coating of equipment and tools used by a manufacturing facility (compared to machinery and tools that are sold as industrial products) should be considered part of facility maintenance operations and not part of the miscellaneous metal parts and products surface coating source category. The final rule includes a definition of "facility maintenance operations" that includes the routine repair or renovation (including the surface coating) of the tools, equipment, machinery, and structures that comprise the infrastructure of the affected facility. Infrastructure may include buildings, tools, and equipment needed to support the function of the facility that are fixed in place, or are occasionally used off-site.

Since mold release agents are applied to molds and are not applied to the part being produced and do not become part of the part being produced, they would be considered part of facility maintenance and would not be subject to the final rule. However, EPA does not believe it is necessary to specifically include mold release agents in the definition of facility maintenance since they would already be covered as a surface coating applied to the tools and equipment of the affected facility.

The regular painting of gas cylinders is not considered facility maintenance because it is not incidental to the primary activity of a facility delivering specialty gases. The repainting of the cylinders is central to the reliable delivery of industrial gases to customers, even if the cylinders are owned by and returned to the gas vendor. The coating is not episodic or occasional, but is an ongoing operation at the source for which dedicated, fixed machinery and equipment are installed at the source. For these reasons, coating of the cylinders is considered part of the principal activity of the facility, which is providing gas to customers in sound and easily identifiable containers. Facility maintenance activities, including episodic or occasional surface coating, on the other hand, is ancillary or incidental to the principal activity of the facility.

The coating of mobile equipment and fleet trucks is considered part of facility maintenance for the Miscellaneous Metal Parts and Products NESHAP, as long as the coating of mobile equipment and fleet trucks is not one of the principal activities of the source. The routine maintenance of metal parts (such as rail car maintenance and drum refurbishment) is not exempt from the final rule when it is performed at sources for which their principal activity is the routine maintenance, including surface coating, of metal parts that are not new parts.

B. Need for Separate Source Category for Department of Defense Coatings

Comment: One commenter stated that EPA should establish a separate source category for DoD surface coating operations not covered by the Aerospace or the Shipbuilding and Ship Repair NESHAP (40 CFR part 63, subparts GG and II, respectively) and exempt these coating operations from the final rule for miscellaneous metal parts. The commenter described the unique material requirements and operating conditions for military coating operations that are different from commercial operations. The commenter claimed that the proposed compliance options would be impractical and extremely costly for DoD facilities because of the complexity of military coating operations, the number of coatings and solvents used, and the number of different items and substrates coated. Many DoD installations (especially those that service or remanufacture artillery, armored vehicles, weapons systems, and support equipment) use thousands of different coatings, and each material is subject to its own military specification.

Because DoD facilities use HAP-containing solvents, the commenter claimed they could not use the proposed compliant materials option. Reformulating solvents or coatings requires extensive field testing before they may be approved for use in tactical field equipment and weapons systems. In addition, updating the coatings for which there is a military specification requires updating the documentation applicable to military specifications and the documentation for the relevant equipment and weapons systems that adopt those military specifications.

The proposed emission rate option and the add-on controls option are not feasible because they would require DoD to be able to accurately track the amount of coating or cleaning solvent used on each item or substrate. As noted above, DoD installations may use thousands of different coatings on a variety of substrates, including metal, plastic, ceramics, rubber, fabric, wood, and composites.

The commenter requested a separate source category so that emission limits and a regulatory format could be developed that would be most appropriate for military coating needs. The commenter claimed that a separate rule also would ensure that all DoD coatings could comply with emission limits using the same units of measure. The commenter noted that DoD facilities use many of the same high performance coatings on plastic and metal items and substrates, and they could be potentially regulated by both the NESHAP for plastic parts and products and the NESHAP for miscellaneous metal parts and products.

Response: After several visits to DoD surface coating operations and meetings with DoD stakeholders, EPA agrees that a separate source category for DoD surface coating operations is warranted. One factor that we considered in this decision is the unique military specifications for coatings used on tactical and other military equipment. Further data collection and analysis are required to determine what emission limits are achievable for these coating operations. Another factor that we considered is the issue that military facilities may use thousands of different coatings, and that the types of equipment that are coated and the types of coatings used in a given time period are unpredictable and often influenced by world events. Further analysis is needed to determine what emission limit formats, compliance demonstration, and recordkeeping requirements are practical for this type of situation. Another consideration was

the high probability that these sources would be subject to multiple NESHAP.

The EPA will be developing separate NESHAP for "Defense Land Systems and Miscellaneous Equipment" surface coating operations. Those NESHAP will include operations that do not meet the applicability criteria of the Aerospace NESHAP or the Shipbuilding and Ship Repair NESHAP. The comments pertaining to the format of the standards and appropriate compliance options will be taken into consideration in the development of those NESHAP.

Since a separate source category will be established for DoD surface coating operations, the definition of high performance coating in the final rule has been written so that it does not include "military combat, tactical, and munitions coating" and the definition of "military combat, tactical, and munitions coating" is not included in the final rule.

C. Exclusion of Activities Subject to Other Surface Coating NESHAP

Comment: Several commenters requested that EPA clarify that the Aerospace NESHAP (40 CFR part 63, subpart GG), rather than the Miscellaneous Metal Parts NESHAP, cover parts necessary for the proper functioning of aircraft. The commenters were concerned in particular that the rule, as proposed, could be interpreted to apply to the specialty coatings included in appendix A to 40 CFR part 63, subpart GG. The commenters stated that the Aerospace NESHAP found that MACT controls were not warranted for certain aerospace surface coating operations and that regulating these operations under the Miscellaneous Metal Parts and Products NESHAP would be an unexplained change in policy.

Another commenter suggested that the final rule include an alternative compliance option for facilities subject to the final NESHAP under development for the surface coating of automobiles and light-duty trucks that also coat metal parts that would not be subject to the Automobiles and Light-Duty Trucks NESHAP. The commenter noted that some automobile and light-duty truck facilities will be subject to the final rule for metal parts coating, the NESHAP for the surface coating of automobiles and light-duty trucks, and the Plastic Parts and Products NESHAP. The commenter suggested that a source be allowed to comply with the final NESHAP for automobiles and light-duty trucks for all coating operations if the principle activity is the surface coating of automobiles and light-duty truck bodies. The commenter noted that the metal and plastic parts coating operations are often integrated with the body coating operations, since all three coating operations may share common coating supplies, application equipment, cleaning solvents, and emission controls. The shared equipment and materials could make tracking separate compliance for each NESHAP overly burdensome and would reduce the certainty of compliance.

One commenter requested that EPA clarify that shipbuilding or ship repair surface coating operations are subject to only the Shipbuilding and Ship Repair NESHAP (40 CFR part 63, subpart II). The commenter noted that the Shipbuilding and Ship Repair NESHAP covers only paints and thinners, and does not cover caulks, sealants, and adhesives. Since the metal parts rule covers all coating materials, the commenter was concerned that it would cover those materials that were not specifically addressed by the Shipbuilding and Ship Repair NESHAP and will make shipbuilding and ship repair sources subject to multiple NESHAP.

Response: We agree with the commenter that coating operations that are addressed in the Aerospace NESHAP, and for which EPA determined that MACT controls were not needed, are not intended to be regulated under the Miscellaneous Metal Parts and Products NESHAP. To clarify this intent, the final miscellaneous metal parts rule includes a provision that specifies that the final rule does not apply to coatings that meet the applicability criteria for the Aerospace NESHAP (40 CFR part 63, subpart GG). In addition, the final rule excludes the application of specialty coatings, as defined in appendix A to subpart GG, to metal parts of aerospace vehicles or components.

The coating of metal parts that would not meet the applicability of the Aerospace NESHAP or that would not require any of the specialty coatings defined in appendix A to 40 CFR part 63, subpart GG would be subject to the miscellaneous metal parts final rule. Information provided during the comment period indicates that any miscellaneous metal coating activities would comprise less than 5 percent of total coating activities at an aerospace facility. Consequently, the facility could elect to comply with the predominant activity compliance alternative to reduce its recordkeeping and reporting burden.

We agree that the final rule for the surface coating of miscellaneous metal parts is not intended to apply to coating operations that meet the applicability criteria of the Shipbuilding and Ship Repair NESHAP. Although the Shipbuilding and Ship Repair NESHAP did not establish emission limits for sealants, caulks, and adhesives used in shipbuilding or ship repair, such types of coatings used for shipbuilding or ship repair operations are more appropriately addressed under the Shipbuilding and Ship Repair NESHAP. The review of the Shipbuilding and Ship Repair NESHAP, required by section 112(d)(6)of the CAA, is an appropriate mechanism for evaluating whether emission limits are needed for sealants, caulks, and adhesives used in shipbuilding or ship repair.

For sources that will be subject to the final Automobiles and Light-Duty Trucks NESHAP, the final miscellaneous metal parts and products rule includes a provision to mitigate the overlap at these facilities. For these metal part surface coating operations, a facility has the option to comply with the requirements of the final Automobiles and Light-Duty Trucks NESHAP as long as the metal parts are for use in automobiles or light-duty trucks.

D. Complying With the Rule Representing the Majority of the Substrate (Plastic or Metal) on Pre-assembled Parts.

Comment: Several commenters supported this provision of the proposed rule while others did not. Several commenters noted that the source would be required to determine every month whether the majority of substrate on pre-assembled parts was metal or plastic based on the coatings applied during the previous 12-month period and argued this would be overly burdensome. Two commenters suggested that because the relative amount of metal and plastic coated could change over time, a facility could potentially fluctuate between applicable NESHAP. Two commenters also suggested that the final rule require facilities to establish whether the majority of surfaces coated are metal or plastic only at the time of their title V permit renewal, rather than on a 12-month rolling basis, to provide stability and reduce recordkeeping burden.

Other commenters claimed that the rule does not adequately address situations where separate plastic and metal parts are coated on the same line. As proposed, separate metal and plastic parts coated on the same line would need to comply separately with the plastic parts and the metal parts rules. The commenters noted that the same coatings and feed systems are often used for both plastic and metal parts on a

single line. The commenters recommended that the final rule adopt a "predominant activity" concept, whereby the facility could determine the predominant coating activity of a line and then comply with a single NESHAP.

Response: We recognize and appreciate some of the problems that were identified with this approach by the commenters. Although some commenters supported this approach, it is not included in the final rule. The final rule instead offers more practical compliance approaches, including a predominant activity alternative as suggested by some of the commenters.

The predominant activity alternative allows a facility to identify its predominant type of coating activity and comply with the NESHAP or the subcategory emission limit that applies to that activity for all coating operations. The predominant activity is defined as the activity that represents 90 percent or more of the surface coating that occurs at a facility.

We have analyzed the relative differences in emission limits that are included in the predominant activity compliance option, as it would apply to the NESHAP for plastic parts and products and the NESHAP for miscellaneous metal parts and products. We have determined, for certain subcategories, that the environmental impact of complying with the emission limit for the predominant activity is essentially equivalent to complying separately with each emission limit. For other subcategories, the environmental impact could be substantially different. To prevent situations that could lead to substantial emissions increases, the following activities cannot be used as the predominant activity at a facility: high performance, rubber-to-metal, and extreme performance fluoropolymer coatings. Emission limits for these coating operations reflect the need for specialized performance requirements that can currently be accomplished only with materials that contain substantially higher-HAP than materials used at other types of coating operations. It would be inappropriate to allow coating operations that can be performed with lower-HAP materials to comply with substantially higher-HAP emission limits than would otherwise be applicable.

Under the predominant activity alternative, if all coating operations subject to NESHAP comply with the emission limit applicable to the predominant activity, the facility will be considered in compliance with the emission limits otherwise applicable to the minority surface coating operations (*i.e*, those that amount to less than 10 percent of the coating activity).

Another compliance option to eliminate the need to comply with more than one coating NESHAP has also been added to the final rule. This second option allows a facility to calculate and comply with a facility-specific emission limit.

E. Comply With the Most Stringent NESHAP

Comment: Several commenters supported this provision. One commenter agreed that complying with only one NESHAP would prevent excessive monitoring, recordkeeping, and reporting. One commenter suggested that this option would require less recordkeeping than tracking and determining which substrate represents the greatest coating activity.

However, several commenters stated that different units of measure (*e.g.*, lb organic HAP per lb solids versus lb organic HAP per gal solids) make it difficult to determine which surface coating NESHAP among several is more stringent. Additionally, one commenter noted that case-by-case demonstrations of relative stringency based on total estimated annual emissions are difficult because of the different standards and units of measure in the various NESHAP. One commenter noted that when different NESHAP have different methods of compliance demonstration, sources must track and allocate material usage differently for different parts. Cleaning solvents in particular are a problem, since some NESHAP emission limits include cleaning solvents while others impose work practices instead.

One commenter noted that the rule as proposed places the burden on the source to determine the most stringent limit, and that the different units used for different surface coating rules may cause a source to mistakenly fall out of compliance through miscalculation or misunderstanding.

Several commenters suggested options so that sources would not have to determine which rule is most stringent on a case-by-case basis. Some commenters suggested that the relative stringency of different NESHAP should be stated in each rulemaking so that facilities subject to more than one NESHAP do not need to perform a case-by-case determination of which applicable rule is most stringent. Another commenter suggested that the different surface coating rules contain factors or equations so a source could convert emission limits from one unit to another (*e.g.*, lb organic HAP/lb solids to lb organic HAP/gal solids).

One commenter recommended that EPA allow facilities subject to both the Plastic Parts and Products NESHAP and the Miscellaneous Metal Parts and Products NESHAP the option of complying with the standards of their choice since both NESHAP will significantly reduce organic HAP emissions.

Response: Through clarification of the applicability provisions of the final rule, as described in this preamble, we have significantly reduced the potential for sources to be subject to multiple surface coating NESHAP. In addition, EPA is providing in the final rule, the opportunity for a source to determine and comply with a facility-specific weighted emission limit for all coating operations that take place at the source. The emission limit would be weighted according to the relative amount of coatings used that would be subject to separate emission limits. This alternative emission limit may include applicable emission limits from two or more NESHAP.

In calculating the facility-specific emission limit, the basis for the weighting of the individual emission limits must be the volume of coating solids used in each subcategory. The volume coating solids used in the different coating operations may be calculated by a variety of methods, as long as it is accepted by the permitting authority. For example, in some cases a facility that uses the same coating for plastic and metal parts may be able to use the design specifications of the parts coated and the numbers of each type of part coated to calculate the volume of coating solids used for metal and plastic surfaces subject to the individual emission limits. In other situations, actual records of coating usage for each operation may be needed to provide a valid calculation.

In calculating a facility-specific emission limit for operations subject to NESHAP with emission limits in different formats, you will need to convert emission limits to the same format. To do so, you must use a default value for solids density of 10.5 lbs solids per gal solids (1.26 kg solids/liter solids) to convert emission limits in the Plastic Parts and Products NESHAP that are in "HAP per mass solids" to the "HAP per volume solids" units of the Miscellaneous Metal Parts and Products NESHAP. This default value was calculated from the weighted-average solids density of coatings in the plastic parts survey database and represents the average solids density of plastic parts coatings.

The following example illustrates how the facility-specific emission limit

may be used. Assume a facility has three coating operations subject to the following emission limits:

- Plastic parts general use (0.16 lb organic HAP/lb solids);
- Miscellaneous metal parts extreme performance flouropolymer coatings (12.4 lb organic HAP/gal solids); and
- Miscellaneous metal parts general use (2.6 lb organic HAP/gal solids).

The three coating operations used the following volumes of coating solids in the 12 months of the compliance period:

- Plastic parts general use: 40,000 gal solids;
- Miscellaneous metal parts extreme performance flouropolymer coatings: 2,000 gal solids; and
- Miscellaneous metal parts general use: 58,000 gal solids.

First, the plastic parts general use emission limit must be converted to lb organic HAP/gal solids units using the default solids density of 10.5 lb solids per gal solids:

$$\frac{0.16 \text{ lb HAP}}{\text{lb solids}} \times \frac{10.5 \text{ lb solids}}{\text{gal solids}} = \frac{1.7 \text{ lb HAP}}{\text{gal solids}}$$

Next, the facility-specific emission limit is calculated using Equation 1 in § 63.3890 of the final rule:

$$\frac{(1.7)\,(40{,}000) + (12.4)\,(2{,}000) + (2.6)\,(58{,}000)}{(40{,}000 + 2{,}000 + 58{,}000)} = \frac{2.4 \text{ lb HAP}}{\text{lb solids}}$$

If all coating operations comply with an emission limit of 2.4 lb organic HAP/gal solids and with the other compliance provisions of the final rule, the facility will be in compliance with the final rule for that compliance period. The calculation must be repeated for each 12-month compliance period. In this example, compliance will also constitute compliance with the Plastic Parts and Products NESHAP for the plastic parts coating operations. The facility may use either the compliant materials option, the emission rate without add-on controls option, or the emission rate with add-on controls option to demonstrate compliance with the facility-specific emission limit.

This approach is consistent with the CAA because the emission limits from which the facility-specific emission limit would be calculated are based on the MACT emission limits for each applicable coating operation. We believe that overall emissions would be essentially the same as if each coating operation were complying separately with each applicable emission limit. The facility-specific emission limit needs to be calculated each month of the 12 month compliance period because of the wide differences in the various emission limits available for inclusion. A relatively small change in the mix of coating operations conducted during a compliance period may have a significant effect on the weighted emission limit. Thus, it would not be appropriate for a facility to establish and maintain a fixed facility-specific emission limit based on historical data or long term projections.

In the final rule, the facility-specific emission limit and predominant activity alternatives provide sources with comprehensive and flexible approaches that will reduce the recordkeeping associated with sources that coat multiple substrates and whose workload could fluctuate over time. These alternatives reduce the likelihood of overlap among multiple surface coating NESHAP.

F. Assembled On-Road Vehicle Coating

Comment: Two commenters recommended that the predominant substrate type on motor homes and other recreational vehicles (RV) be established as the most restrictive substrate type (*i.e.*, plastics). They argued that a single emission limit should be established for coating motor homes and other assembled on-road vehicles (AORV) that reflects the restrictions of the plastic substrate used on the bodies of motor homes and other RV. The commenters argued that the recordkeeping to document the fraction of plastic and metal on RV would be a major challenge because of the different options for each RV that can be chosen by the customer which affect the ratio of metal-to-plastic that is coated on each vehicle.

One commenter requested that the metal parts rule specifically exclude aftermarket repairs and refinishing of heavy duty trucks, buses, and other vehicles. Other commenters requested that the final rule exempt auto refinishing operations and requested that the final rule state that the refinishing of assembled vehicles is covered under the AORV coating subcategory in the Plastic Parts and Products NESHAP. One commenter also requested that the AORV subcategory in the plastic parts rule, and not the miscellaneous metal parts rule, apply to vehicle parts that are separate from the assembled vehicle at the time of coating application, if the part is eventually to be incorporated into the vehicle. The commenter reasoned that emissions from such operations are negligible in comparison to overall refinish coating emissions, and tremendous costs would be involved with having to reformulate all the colors required to color match under two different regulatory limits and units of measure.

Response: We agree that a single emission limit should apply to all surface coating operations on motor homes and other fully assembled vehicles. Even though fully assembled vehicles may contain a mix of plastic and metal substrates, the majority of the surface coatings applied to the vehicle are automotive-type refinish coatings. In the proposed rule for plastic parts and product surface coating (40 CFR part 63, subpart PPPP; 67 FR 72276, December 4, 2002), we proposed an emission limit for an AORV surface coating subcategory, and an emission limit for that subcategory has been included in the final plastic parts rule.

The AORV subcategory in the final plastic parts rule includes all surface coating operations (regardless of the relative amount of metal and plastic) on fully assembled vehicles, including, for example, motor homes and other RV, refinishing of cars and trucks following body repair, and the painting of fleet trucks. Surface coating operations that

are subject to the AORV surface coating emission limit in the plastic parts rule are not subject to any of the emission limits in the miscellaneous metal parts and products rule. These include incidental coating of parts that have been removed from the vehicle, such as grille fronts, to facilitate access and coverage.

G. The MACT Floor Approach and Database

Comment: Several commenters supported the approach of using State volatile organic compounds (VOC) rules to develop the MACT floor. Some found the VOC rules to be a good indicator of HAP emissions and to represent emission levels that have been shown to be achievable for the range of sources in the category and supported the assumptions made by EPA in that approach. However, one commenter contended that EPA improperly used State VOC emission limits instead of levels "actually achieved" by the best performing 12 percent of sources to set the MACT floor. The commenter argued that one legal precedent (*Sierra Club* v. *U.S. EPA*, 167 F.3d 658, 664 D.C. Cir. 1999) has found that the use of regulatory permit data in place of actual performance data is only permissible for setting a MACT floor when a rational relationship exists between permitted emissions and actual emissions. The commenter argued that a significant difference existed between the allowable VOC emissions under State rules and actual HAP emissions of the best performing facilities because EPA improperly assumed that all facilities operated at the allowable VOC level in the State rules. That is, EPA assumed that VOC emissions were no lower than the State VOC limits.

In place of using State VOC rules, the commenter argued that EPA should use the average emission rate of 0.1 lb organic HAP/gal coating solids that was the result of a preliminary ranking presented in the preamble to the proposed rule (67 FR 52791, August 13, 2002). The commenter further argued that unless EPA sees a need to establish additional subcategories, this limit should apply to all sources in the general use coating category.

The commenter noted that the HAP limits for the general use category are higher than the actual emissions of "a large portion" of the existing sources that will be regulated by the final rule. From this observation, the commenter concluded that the final rule will allow several hundred sources to increase HAP emissions.

The commenter also contended that data from the miscellaneous metal parts and products industry indicated that coating formulations with less HAP do not result in less VOC, and it is incorrect to assume that VOC control is a proxy for HAP control. The commenter concluded from this observation that using State VOC rules to develop the MACT floor for HAP emissions was inconsistent with the CAA because no rational relationship existed between permitted VOC emissions and actual HAP emissions.

Response: For most of the sources in this source category, the State VOC rules constituted the only applicable and measurable emission limitation that could be used in a MACT floor ranking for some subcategories. We did not adopt the emission level indicated by the preliminary MACT ranking because that level was not achievable for the extremely diverse facilities in the relevant subcategories, as represented by the miscellaneous metal parts and products database. Along with various stakeholder groups, we also considered MACT rankings for individual industry segments, but the results for individual segments would not be achievable for all sources within those segments because of diversity even within those segments. The only exceptions were for the rubber-to-metal subcategory and the magnet-wire subcategory, where the MACT emission limits are based on the MACT database rankings for these segments. Therefore, we chose the final approach of basing HAP limits on State VOC limits for the general use and high performance categories. State VOC limits have been demonstrated to be achievable emission limitations for the range of sources included within these two miscellaneous metal parts and products subcategories.

We started our development of HAP limits with the State VOC limits and then applied the appropriate HAP/VOC ratio to determine a good representation of the HAP content of coatings that meet the VOC limits. If we had just used the VOC limits as HAP limits without adjusting for the HAP/VOC ratio, then the assertion in the comment would be more accurate.

Although we agree that some sources achieved nominally lower-HAP emission limitations than those derived from the State VOC limits, it is not clear that those lower-emitting facilities represent the range of sources in the source category or in any distinct or clearly definable subcategory or industry segment.

Contrary to the commenter's assertion, VOC limits do limit HAP emissions indirectly from this source category because nearly all organic HAP used in coatings and related solvents are also VOC. Although many VOC are not HAP, limiting VOC also limits HAP because the HAP content cannot exceed the VOC limit. Therefore, those sources subject to VOC limits have also reduced HAP emissions to comply with the VOC emission limits.

We have established for this source category that a reasonable relationship exists between State VOC rule limits and actual VOC emissions for most facilities. Using the miscellaneous metal parts and products survey data, we calculated the average VOC content (in lb VOC per gal of coating, less water) for each facility subject to a State VOC rule limit. The average VOC content of the coatings reported for each facility subject to a State VOC limit is nominally lower than the applicable State VOC limit, consistent with allowing a reasonable margin for compliance.

Comment: One commenter supported the HAP-to-VOC ratio that was used to convert the VOC limits in State coating rules to HAP limits. However, another commenter argued against using the average HAP-to-VOC ratio for all sources in setting the MACT floor, stating that among the best performing sources, the HAP-to-VOC ratio is much less than the 43-percent overall average ratio used by EPA. The commenter did not provide specific HAP-to-VOC ratios for any of the lower emitting facilities. The commenter argued that if EPA decides to base the rule on State VOC limits, EPA should replace the 43-percent HAP-to-VOC ratio with the average HAP-to-VOC ratio for the best performing 12 percent of sources.

Another commenter noted that the EPA database did not include or account for HAP contained in solvent blends. The commenter claimed that the default fractions for these products could "significantly impact the baseline" and requested that the VOC-to-HAP conversion factor be reviewed.

Response: As suggested by one commenter, we assessed the HAP-to-VOC ratio of those facilities that represented the MACT floor. And as suggested by other commenters, we reviewed the solvent blends that were used by a representative sample of sources and adjusted the emission limits is proposed to account for the organic HAP in solvent blends. The sources included in the MACT floor 12-percent determination are the facilities in the metal parts database that are subject to the most stringent State VOC coating rules.

Contrary to the one commenter's contention, we found that the HAP-to-VOC ratio for sources subject to the most stringent State VOC rules was

neither lower than nor substantially different from the 0.43 ratio used to develop the proposed emission limits. We estimated that the organic HAP from solvent blends accounts for about 2 percent of all HAP. Therefore, the HAP-to-VOC ratio used for calculating the general use limits has been increased from 0.43 to 0.44 to account for the organic HAP in solvent blends, and the general use limits were recalculated and then rounded to two significant figures. The revised existing source limit is 2.6 lb organic HAP/gal (0.31 kg organic HAP/liter) coating solids used. The revised new source limit is 1.9 lb organic HAP/gal (0.23 kg organic HAP/liter). Some of the emission limits changed slightly due to rounding the proposed emission limits to two or three significant figures.

Since the high performance, magnet wire, and rubber-to-metal coating emission limits were not developed using the HAP-to-VOC ratio of 0.43, the emission limits for these coating operations were not recalculated. For the high performance limit, a ratio of 0.70 provided by industry was used. For magnet wire and rubber-to-metal, HAP content from the survey database were used to establish the floor, so no HAP-to-VOC ratio was needed for these subcategories.

Comment: Several commenters stated that the HAP from cleaning materials should not be included in the MACT floor or in calculating emission limits for general use coatings. The commenters argued that the State VOC rules on which these limits are based do not include cleaning solvents. Two commenters pointed out that State VOC rules follow the recommendations of EPA's control technique guideline document for miscellaneous metal parts and products surface coating, which recommends excluding cleaning solvents. By including the cleaning solvents in the miscellaneous metal parts and products MACT floor, the commenters claimed that EPA made the proposed limits more stringent than allowed by the MACT analysis based on State VOC rules. Two commenters suggested that if a cleaning solvent limit were necessary, it should be listed separately or averaged separately and then added directly to the proposed HAP limits.

Several commenters suggested changes to the rule as proposed if cleaning solvent emissions were to be regulated. Three commenters stated that cleaning solvents should be exempt from the final emission limits provided cleaning operations are conducted in closed containers. Two commenters suggested that the final rule should include work practices for cleaning solvents. One commenter noted that the Industrial Cleaning Solvent Alternative Control Technique document suggested solvent accounting and plant management practices to address emissions from solvent cleaning. The same commenter also noted that EPA has used its authority under section 112(h) of the CAA to incorporate work practices for cleaning solvents for the Wood Furniture, Aerospace, and Shipbuilding and Ship Repair NESHAP. One commenter suggested cleaning solvents be regulated separately from coatings based on HAP composition or vapor pressure.

Response: The EPA reviewed the cleaning material reported in the database for the miscellaneous metal parts rule and concluded that no-HAP cleaners are a viable option for sources subject to the final rule. The proposed and final emission limits reflect the fact that miscellaneous metal parts and products sources, for which EPA had data, were using cleaning solvents that contained no organic HAP or were using solvent blends containing only small percentages of organic HAP (*i.e.*, 6 percent HAP or less), which would have little, if any, effect on their emission rate. As described earlier, we have adjusted the HAP-to-VOC ratio used to establish the emission limits to account for the organic HAP contained in solvent blends.

The final rule accounts for cleaning operations that are conducted in closed containers, although there is no specific requirement to perform cleaning in closed containers. In the compliance calculations used in the emission rate without add-on controls option and the emission rate with add-on controls option, you only need to include the organic HAP contained in materials that are consumed during the previous 12-month period and you may take credit for organic HAP contained in materials that are sent off-site for recycling or disposal. If cleaning is performed in closed containers, the amount that evaporates to the atmosphere is minimized.

H. Compliance Options for Meeting the Emission Limits

Comment: Many commenters requested clarification on how the different compliance options could be applied to different coating lines at the same facility. Several commenters asked EPA to verify that a facility can choose different control options for different lines at a single facility.

Response: You may choose different compliance options for different lines at the same facility. For example, one line may be able to use the compliant materials option, while another line may need the flexibility to use higher- and lower-HAP materials under one of the emission rate compliance options. You may also use different compliance options within a single line, as long as different compliance options are not applied at the same time to the same coating applied to a single part. For example, most of the coatings used on a particular line may be able to individually meet the emission limit for a particular subcategory, but a few coatings may need a higher-HAP content. You could average these higher-HAP coatings with some of the lower-HAP materials under the emission rate without add-on controls option and demonstrate compliance for these separately, while the other lower-HAP coatings comply under the compliant materials option.

It may be more practical to use an add-on control for some coating operations, such as a specific line, than for others. If you have an add-on control device on some coating operations, the work practice standards apply to only the coatings and operations controlled by the add-on controls.

Comment: One commenter requested that EPA clarify how to switch between compliance options, specifically when switching between the compliant materials option and one of the two options that require calculating a 12-month rolling average emission rate. The commenter suggested that the final rule should allow maximum flexibility in switching between options as long as all compliance periods demonstrate compliance under at least one option, and the necessary data are available for calculating the needed 12-month averages.

Response: You may switch between compliance options at any time as long as you notify your permitting authority in your next semiannual compliance report, and you comply with all monitoring, recordkeeping, and reporting needed for the compliance option to which you are switching. Keep in mind, however, that if you switch from one compliance option to another, you must be able to demonstrate compliance based on the previous 12 months of data. As a result, you may need data from the previous 12 months of operation that were not specifically required by the option under which you were previously demonstrating compliance. This could be especially true if you switched from the compliant materials option to the emission rate without add-on controls option or the emission rate with add-on controls option.

If you began using an add-on control device and complying with the emission rate with add-on controls option, you may apply the emission reduction credit to only those coatings that were applied after you began using the add-on control device. You would also need to demonstrate compliance with the operating limits for the add-on control device only after you began using it. Conversely, if you stopped using an add-on control device and began complying with the emission rate without add-on controls option, you could no longer apply the emission reduction credit to coatings applied after the add-on control was shut down, but you would also no longer need to demonstrate compliance with the operating limits. In both cases, your 12-month compliance calculations would include a period when the control device was in use and a period when it was not. As you moved through time and performed subsequent monthly compliance calculations, the fraction of coating activity under the previous compliance option would decrease and the fraction under the current compliance option would increase.

Comment: One commenter requested that the HAP content of thinners and solvents not be restricted to absolute zero for the compliant materials option because thinners and solvents can pick up trace amounts of HAP during the recycling process.

Response: In the final rule, we have clarified that under the compliant materials compliance option, thinners and cleaning solvents do not need to be absolutely zero-HAP. We have included a definition of non-HAP materials based on common reporting thresholds that are already in use. Thinners and other additives, cleaning solvents, and coatings are considered non-HAP as long as the organic HAP level does not exceed the OSHA reporting thresholds for HAP (0.1 percent by weight for OSHA-defined carcinogens and 1.0 percent by weight for other HAP). In addition, we have included a provision that you do not need to redetermine the organic HAP content of solvents that are recycled off-site, if you have documentation showing that you received back the exact same solvent you originally sent off-site for recycling. This documentation ensures that the solvent you receive back does not represent a potential net increase in the organic HAP being brought to the site. The final rule contains a provision that you do not need to redetermine the organic HAP content of solvent recycled on site.

Comment: One commenter suggested that HAP emissions from storage, mixing, conveying, and waste management of coatings, thinners, cleaning materials, and associated wastes should be explicitly excluded in the emission calculations in the rule. The commenter noted that it is difficult to directly quantify these emissions and that there is often a lack of general agreement on how to quantify such losses. The commenter also noted that EPA stated in the preamble to the proposed rule that we were not able to obtain data to adequately quantify HAP emissions from storage, mixing, and waste handling (67 FR 52790).

Response: Under the compliant material option you must demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit in § 63.3890, and that each thinner, additive, and cleaning material used contains no organic HAP. The compliant material option focuses on the organic HAP content of coatings, thinners, additives, and cleaning materials as received from the manufacturer or supplier and prior to any alteration. No separate or direct accounting of emissions from storage, mixing, and conveying of coatings, thinners, additives, cleaning materials and associated wastes is required under the compliant material option. Such an accounting clearly is not needed when each coating is a compliant coating and each thinner, additive, and cleaning material contains no organic HAP.

Under the emission rate without add-on controls option and the emission rate with add-on controls option all of the organic HAP content of coatings, thinners, additives, and cleaning materials is initially assumed to be emitted. (See calculation of the terms A, B, and C in § 63.3951(e).) Any emissions from storage, mixing, and conveying of coatings, thinners, additives, cleaning materials, and associated wastes are implicitly included in this assumption. The rule does include provisions which allow for reclaimed materials to be excluded from material usage. (See introductory language to § 63.3951.) The rule also includes provisions for the organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal to be excluded from the total mass of organic HAP emissions. No separate or direct accounting of emissions from storage, mixing, and conveying of coatings, thinners, additives, cleaning materials, and associated wastes is required under either the emission rate without add-on controls option or the emission rate with add-on controls option. Such an accounting clearly is not needed when all of the organic HAP content of coatings, thinners, additives, and cleaning materials is initially assumed to be emitted and provisions are made to exclude reclaimed materials from material usage and to exclude organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal to be excluded from the total mass of organic HAP emissions.

We agree that no separate or direct accounting of emissions from storage, mixing, and conveying of coatings, thinners, additives, cleaning materials, and associated wastes is required under this rule. We believe that this is sufficiently clear in the final rule. We have not made any changes in the final rule in regard to this comment.

I. Methods for Expressing Organic HAP Content of Coatings

Comment: Several commenters stated that the emission limits should be in units of pounds of HAP per gal of coating (lbs HAP/gal coating), rather than lbs HAP/gal solids to be consistent with existing permits and State coating rules. One commenter noted that changing the units from lb/gal coating to lb/gal solids would not allow the facility to continue to track performance improvements from VOC emission reduction initiatives. One commenter, a representative of the recreational vehicle industry, stated that using lb organic HAP/gal solids would be consistent with other coating rules that affect the recreational vehicle industry.

Response: The emission limits in many State VOC rules for miscellaneous metal parts coating are expressed in units of mass of VOC per volume of coating less water and less exempt compounds. Similar units were used for the emission limit recommendations in the 1978 guidance document for this source category titled Control of Volatile Organic Emissions from Existing Stationary Sources—Volume VI: Surface Coating of Miscellaneous Metal Parts and Products (EPA–450/2–78–015). These "less water" units are difficult to work with and are impractical for facilities with add-on control equipment. As a result of 1987 EPA guidance (52 FR 45108, November 24, 1987), some States have changed their VOC limits to mass of VOC per volume of solids, and most States have added alternative limits in units of mass of VOC per volume of solids for facilities with add-on control equipment.

The use of "less water" units for HAP in the final rule would lead to even more difficulties and probable confusion. In order to provide a meaningful basis for comparison of the HAP content of different coatings, the

units would need to be mass of HAP per volume of coating less water and less non-HAP organic volatiles. Most coatings contain non-HAP organic volatiles. In order to express the HAP content of such coatings in these units, the weight fraction and density of each non-HAP organic volatile would be needed. This could be a significant additional data gathering burden. In addition, these units would be unworkable for facilities with add-on control equipment.

Comment: Additional commenters objected to expressing the emission limits in lb organic HAP/gal solids, claiming that this unit of measure is hard to understand and verify for several reasons: Estimating gal of solids is based on theoretical calculations; manufacturers do not routinely measure gal solids; and the two ASTM methods specified for measuring volume solids, ASTM Methods D2697–86 (Reapproved 1998) and D6093–97, are inaccurate and costly to run. The commenter also specifically claimed that the emission limits were based on an arbitrarily chosen default density for coating solids. The commenters recommended using lb organic HAP/lb coating solids because this metric is readily available from the manufacturers, is based on a reliable method, and is more universally used by the surface coating industry.

Response: Many Federal and State VOC rules use units of mass of VOC per volume of solids. In over 20 years of use, there have been no significant difficulties identified or reported in the use or understanding of these units. The volume solids content of coatings is routinely used by both coating manufacturers and coating users as a measure of coverage. The survey data that EPA collected on miscellaneous metal parts and products coatings indicate that volume solids data are commonly available.

The test methods for volume solids are one option for generating volume solids content data. Formulation data for volume solids may also be used. The final rule states that the test method results will take precedence unless, after consultation, you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

The emissions limits were, in part, determined by using a standard VOC density to convert State emission limits from units of mass of VOC per volume of coating less water and less exempt compounds to mass of VOC per volume of solids. The VOC density used for this conversion was 7.36 lbs per gal. This VOC density was used in EPA's 1978 guidance for this source category and is commonly used for converting emissions limits for this source category from a "less water" to a volume solids basis. This document is "Control of Volatile Organic Emissions from Existing Stationary Sources—Volume VI: Surface Coating of Miscellaneous Metal Parts and Products," EPA–450/2–78–015. The density of coating solids is not needed and was not used to make this conversion.

Comment: One commenter requested that the final rule clarify how powder coatings can be used in calculations to show compliance with the emission rate option. The commenter noted that the compliance units and equations are based on volume, which is not applicable for non-liquid coatings, which are purchased by weight. The commenter suggested that the rule include a method for determining the density of powder coatings so the gal of solids for powder coatings can be determined.

Response: In the final rule, you may include the solids from powder coatings in the denominator for the emission rate calculations in the emission rate without add-on controls and the emission rate with add-on controls compliance options. By allowing facilities to include powder coatings in the compliance demonstrations, we hope to encourage greater use of this lower-emitting technology. The final rule includes ASTM Method D5965–02, "Standard Test Method for Specific Gravity of Coating Powders," to measure the density of powder coatings. The density (or applied coating solids density) is density of the powder coating after application and curing. The bulk density (or apparent density) of the powder coating prior to application cannot be used in the compliance calculations because the bulk density will include air spaces in the powder that are not present in the cured coating.

Comments: One commenter stated that the final rule should allow sources or materials suppliers to use alternatives to EPA Method 24 to determine the amount of HAP that is actually emitted from reactive adhesives as they are used. The proposed rule and associated test methods assumed that all HAP contained in coatings or additives are emitted. However, in reactive adhesives, some of the HAP species react with other ingredients to form solids and are not emitted to the atmosphere. Therefore, the amount of HAP emitted can be significantly less than the amount of HAP present in the liquid adhesive.

Response: An alternative method for determining the fraction of HAP emitted from reactive adhesives has been included in appendix A to subpart PPPP 40 CFR part 63. Sources using reactive adhesives may use this method for demonstrating compliance based on the organic HAP actually emitted, rather than using Method 311, Method 24, or composition data. The method relies on preparing a sample (of known weight) of the adhesive as it will be applied, allowing it to fully cure, baking the sample, and then weighing the cured adhesive to determine the weight loss. The weight loss represents the volatile fraction that is emitted from the adhesive.

J. High Performance Coatings

Several commenters suggested that EPA expand the definition of high performance coating to include several types of specialized coatings: Paints for offshore oil platform structures, extreme performance oilfield coatings, and coatings exposed to food grade products in rail tank cars and in drums.

Two commenters requested that EPA expand the definition of high performance coating to include paints used for off shore oil platforms since general use coatings cannot withstand saltwater. The commenters noted that in Louisiana, the coatings used for large off shore structures are subject to the same State limits as those for the shipbuilding and ship repair industry and are not subject to the general use limits in the State miscellaneous metal parts and products rule. The commenters also noted that the definition of coating in the State rule and the Shipbuilding and Ship Repair NESHAP includes just paints and thinners, but the definition in the Miscellaneous Metal Parts and Products NESHAP includes adhesives, caulks, and cleaning solvents.

One commenter requested that extreme performance oilfield coatings should be included in the definition of high performance coating. According to the commenter, internal oilfield pipe coatings must withstand elevated temperature (as high as 400 degrees Fahrenheit), extreme pressure, corrosive materials, and abrasive service and these criteria are generally considered in defining the extreme performance category used in California VOC rules. According to the commenter, approximately 15 plants perform oilfield equipment coating.

Another commenter suggested that high performance coatings should include "extreme performance coatings" as defined by South Coast Air Quality Management District Rule 1107 with the addition of coatings exposed to food grade commodities. The commenter argued that this revision is needed for coatings used on rail tank car interiors

and exteriors to protect them from harsh chemicals or food grade products such as wine and noted that coatings used in tank cars carrying food must meet FDA requirements. The commenter explained that tank car exteriors are exposed to spillage, fumes, salt air, snow, and temperature extremes.

One commenter added that EPA should expand the high performance coatings category to include the coatings applied to the interior of drums and pails to protect substrates from hazardous materials and safeguard food-grade products and prevent leakage. The commenter asked that EPA acknowledge that interior coatings for steel and other metal drums and pails are universally accepted as high performance coatings.

Response: We analyzed the metal parts survey data that represented the types of coating operations that the commenters argued should be included in the high performance coating category. In all cases, we found that the general use emission limit is achievable for these types of coating operations. The commenters submitted no coating HAP content data to support the need for including these coating types in the definition of high performance coatings.

The metal parts database includes data for facilities that coat off shore oil platforms and internal oilfield pipes. These data indicate that these facilities could comply with the general use emission limit. Therefore, based on the information available to the Administrator, the final rule does not include oil platform and internal oilfield pipe coatings in the definition of high performance coatings.

The metal parts database includes data from 21 sources performing coating operations on rail cars. These data indicate that the general use emission limit is achievable for these types of sources. Therefore, we did not write the final rule to include rail tank car interior or exterior coatings in the definition of high performance coatings.

The metal parts database includes data from 17 sources performing drum coating operations. These data indicate that the general use emission limit is achievable for these types of sources. Therefore, we did not write the final rule to include coatings applied to pails and drums in the definition of high performance coatings.

Comment: One commenter suggested that extreme performance fluoropolymer (EPFP) coatings should be exempt from the final rule or subject to the limit for high performance coatings. According to the commenter, these coatings are used when one or more of several performance criteria are required including creating a non-stick surface, providing solid film lubrication, providing chemical resistance, providing resistance to a wide range of temperatures, complying with certain FDA specifications, and others. The commenter claimed that water-borne EPFP coatings, for many applications, do not achieve satisfactory abrasion resistance, adhesion, thinness, and other performance criteria.

The commenter offered a definition of EPFP coatings, data on the HAP content of ten different EPFP coatings, and an estimate of national HAP emissions from EPFP coatings. According to the commenter, total estimated EPFP coating use is about 60,000 gal nationally with HAP emissions of about 45 tpy. The HAP content of the ten EPFP coatings submitted by the commenter ranged from 1.1 lb organic HAP/gal solids to 12.4 lb organic HAP/gal solids. The commenter did not provide any data on representative emission rates from EPFP coating operations. Data on HAP content for only a few of these coatings were included in the metal parts database, but these data were consistent with the data provided by the commenter.

Response: Based on the HAP content data and performance requirements fulfilled by EPFP coatings, we agree that EPFP coatings should not be subject to the general use emission limit. Therefore, the final rule includes a subcategory for EPFP coatings subject to an emission limit for new and existing sources of 1.5 kg organic HAP/liter coating solids (12.4 lb organic HAP/gal coating solids) used based on the data received with the public comments. This limit is more stringent than the high performance limit because the data provided by the commenter indicate that these coatings can meet a more stringent limit. Since sufficient data were available to establish a HAP content limit for these coatings, an exemption for these coatings is not needed in the final miscellaneous metal parts rule.

Comment: One commenter requested that the final rule exempt the coating of NASA launch support equipment or include the coating of this equipment in the surface coating NESHAP being developed for defense land systems and miscellaneous equipment. The commenter explained that these coatings have unique performance requirements, such as the ability to withstand the exhaust from rocket engines, and the coatings that meet these requirements must be qualified for use under NASA specifications.

Response: We agree that the coatings used on NASA launch support equipment have unique performance requirements. These performance requirements and the coatings needed to meet them will require further analysis before emission limits can be established. Since the process for qualifying coatings under NASA specifications is similar to the process of qualifying coatings for use under military specifications, these coating operations will be included in the development of the surface coating NESHAP being developed for defense land systems and miscellaneous equipment.

K. Compliance Requirements for Sources With Add-on Controls

Comment: Several commenters stated that the compliance calculations in § 63.3961(h) as proposed should not use an assumption of zero-efficiency when deviations occur. According to one commenter, any quantitative data on emissions should be allowed to be considered if agreed to by the enforcing agency. Other commenters stated that a source should be allowed to demonstrate through monitoring of other parameters, compliance with standard procedures, or other means (such as fuel consumption or manual temperature recordings) that some or all of the emissions were controlled. One commenter requested that EPA allow a facility to estimate capture or destruction efficiency during deviations, based on design data or test data. One commenter stated that facilities should be able to test over a range of operating conditions, so that the source can estimate control efficiency during the deviation rather than having to assume zero-percent efficiency in the compliance calculations.

Response: If a source has manually collected parameter data indicating that an emission capture system or control device was operating normally during a parameter monitoring system malfunction, these data could be used to support and document a different control efficiency, and the source would not have to assume zero-percent efficiency.

If a source has data indicating the actual performance of an add-on emission capture system and control device (*e.g.*, data from previous tests measuring percent capture at reduced flow rates or percent destruction efficiency at reduced thermal oxidizer temperatures) during a deviation from operating limits, then the source may use the actual performance in determining compliance, if the use of the data is approved by the Administrator. The final rule does not allow a source to otherwise estimate the efficiency of a capture system or control

device during a deviation because this would provide no assurance of the quality of the data used in the compliance calculation.

L. Compliance Requirements for Magnet Wire Sources

Comment: Several commenters from the magnet wire industry argued that the testing and monitoring provisions for sources with add-on controls were not applicable to magnet wire coating machines. The commenters noted that magnet wire coating machines require an oven to cure the coating that is applied to the wire as it passes through the machine. The heat used to maintain the temperature of the oven is provided by the combustion of the solvents that are evaporated from the coating. Although a supplemental burner or heater is used to heat the oven at startup, once the oven is running, the temperature is maintained only by combustion of the solvent vapors. Combustion is maintained in modern ovens by a bed of catalyst that is located in the recirculating gas stream within the oven. In some older ovens, a burner tube is used in place of the catalyst bed to maintain temperature, although the solvent vapors are still the primary source of fuel for the oven. Air is re-circulated from an evaporative zone in the oven, through the catalyst bed or burner tube, and back to the evaporative zone. A fraction of the air is vented to the atmosphere after combustion and replaced with air drawn in through the openings in the oven to maintain oxygen levels inside the oven.

According to the commenters, magnet wire ovens are different from other surface coating sources in several ways. First, the coating is applied by an automated machine that runs continuously until the product on that machine is changed. Second, the curing oven is essentially a narrow tube and is different from a spray booth or other type of enclosure used in other coating operations. Third, the catalyst bed or burner tube in the curing oven is integral to the curing oven and it must function properly to make a salable product. If the curing oven, catalyst bed, or burner tube malfunction, the machine cannot make a product, regardless of the air quality impacts of the malfunction. Therefore, proper operation of the machine is inherently consistent with good air pollution control practices.

The commenters argued that these differences make the testing and monitoring requirements for sources with add-on controls inappropriate for magnet wire coating machines. In particular, emissions at the inlet of the burner tube or catalyst bed cannot be measured in order to determine destruction efficiency across the burner tube or catalyst bed. Measuring destruction efficiency is also complicated by the fact that the oven recirculates emissions before a portion of the flow is vented to the atmosphere.

The commenters also noted that since magnet wire ovens are different from spray booths and other types of enclosures, the capture efficiency monitoring provisions are inappropriate. Since workers must access the wire inlets and outlets of the ovens while the machines are operating, it would be difficult to maintain the operating limits specified for enclosures used with add-on controls. Worker access would also prevent many ovens from meeting the criteria for permanent total enclosures.

Finally, the commenters noted that many magnet wire facilities have dozens, and occasionally hundreds, of magnet wire coating machines and that each machine has its own oven and burner tube or catalyst bed. Therefore, it would be overly burdensome to require emission testing of each magnet wire coating machine as part of an initial compliance demonstration and to require continuous parameter monitoring to demonstrate ongoing compliance. The commenters proposed changes included alternative emission testing and monitoring provisions.

Response: We agree with the commenters that magnet wire facilities are substantially different from other surface coating sources with conventional capture systems and add-on controls, and these differences were not reflected in the proposed rule. The final rule incorporates emission testing and parameter monitoring provisions that reflect the practical constraints of this industry.

The final rule includes alternative procedures for capture efficiency and destruction efficiency measurement where the control device is internal and integral to the oven so that it is difficult or infeasible to make gas measurements at the inlet to the control device. These alternative procedures for the magnet wire industry have been consolidated into appendix A to the final rule.

The alternative procedures determine the organic carbon content of the volatile matter entering the control device based on the quantity of coating used, the carbon content of the volatile portion of the coating, and the efficiency of the capture system. The organic carbon content of the control device outlet (oven exhaust for ovens without an external afterburner) is determined using Method 25 or 25A. You do not need to test every magnet wire coating machine. Instead, with approval you may test a single unit that represents identical or very similar magnet wire coating machines. We agree with the commenters that identical or very similar magnet wire coating machines achieve very similar capture and control device efficiencies, and it would be overly burdensome to test every machine at a facility. However, it is important to note that every untested magnet wire coating machine must comply with the operating limits that are established during the performance test of the representative unit.

If the capture system for a magnet wire coating machine meets the definition of a permanent total enclosure, then you may assume capture efficiency is 100 percent and no measure of capture efficiency is needed. Otherwise, capture efficiency can be measured using a liquid-to-uncaptured-gas protocol using a temporary total enclosure, or an alternative capture efficiency protocol meeting data quality objectives or lower confidence limits as described in appendix A to the National Emission Standards for the Printing and Publishing Industry (40 CFR part 63, subpart KK). These approaches are more appropriate when it is difficult or infeasible to make gas measurements at the inlet to the control device for measuring capture efficiency with a gas-to-gas protocol.

Capture efficiency of each magnet wire coating machine will be monitored by requiring each oven to be fitted with an interlock that will stop the coating process or with an alarm that will sound if a fan becomes inoperable or if the oven begins to overheat. Overheating is an indirect indicator that a fan in the oven is inoperable. Each oven must also be checked once every 6 months with a smoke stick to ensure that air is being pulled into the oven.

An alternative procedure for monitoring catalytic oxidizers on magnet wire coating machines is provided in appendix A of the final rule. This alternative allows you to develop and implement an inspection and maintenance plan as described in appendix A of the final rule and to measure the temperature either before or after the catalyst bed and compare the measured temperature to the operating limit. In addition to the inspection and maintenance plan, you must either perform periodic catalyst activity checks, or check the concentration of organic compounds in the oven exhaust.

Comment: Two commenters argued that annual sampling of catalyst activity in § 63.3967(b)(4)(i) as proposed is too frequent and would cause excessive downtime and unreasonable costs to

remove and sample the catalyst for the magnet wire industry. The commenter noted that catalyst beds routinely perform at compliance levels for 2 or more years. The commenter believes that the final rule should require periodic sampling following the manufacturer's and catalyst supplier's recommended schedule and procedures and dictated by unit operation and maintenance records. In addition, the commenter stated that it is not necessary to conduct a performance test whenever the catalyst is replaced. Replacing the catalyst in itself ensures compliance, as long as the operating limits specified in Table 1 of the rule as proposed are achieved.

Response: We agree with the commenter that periodic sampling and analysis of the catalyst activity is sufficient for the magnet wire industry because the catalyst bed is integral to the proper functioning of the oven and the coating process. Therefore, for the magnet wire industry, periodic sampling and analysis consistent with the catalyst suppliers recommendations are sufficient. We also agree that replacement of the catalyst bed generally does not require a new performance test. Therefore, the final rule does not require a new test as long as the catalyst is similar to the old catalyst in kind and quality. Otherwise, a new test will be required.

Comment: Two commenters contended that the proposed requirements in § 63.3967(b)(4)(ii) and (iii) to perform monthly inspections of catalytic oxidizers are not practical or necessary for magnet wire coating machines because the burners and catalyst beds are inside the machine and integral to the proper functioning of the coating process. The commenters suggested a monthly external inspection and an annual internal inspection.

Response: We agree with the commenters that the proposed provisions were not practical or necessary for magnet wire sources. The final rule requires a monthly external inspection and an annual internal inspection. The annual internal inspection is not required for internal catalysts which cannot be accessed without disassembling the oven.

V. Summary of Environmental, Energy, and Economic Impacts

Model plants were developed to aid in estimating the impacts the final rule would have on miscellaneous metal parts and products surface coating operations. Five model plants distinguished by size, as measured by the total volume of coating solids used, were developed. Impacts were then developed for each model plant, and these individual impacts were scaled to nationwide levels based on the number of facilities corresponding to each model plant size. We used the model plant approach because we did not have adequate data to estimate impacts for each actual facility.

A variety of compliance methods are available to the industry to meet the emission limits. We analyzed the information obtained from the industry survey responses, industry site visits, trade groups, and industry representatives to determine which compliance methods would most likely be used by existing and new sources. We expect that the most widely-used method for existing sources would be low-HAP content liquid coatings (coatings with HAP contents at or below the emission limits). Powder coatings, non-HAP cleaning materials, and add-on capture and control systems would likely be used by existing sources, but to a lesser extent. Various combinations of these methods may be used. New sources are expected to use a combination of powder coatings, low-HAP coatings, and non-HAP cleaning materials.

For the purpose of assessing potential cost and emission reduction impacts, we assumed that all existing sources would convert to liquid coatings and thinners with lower-HAP content than presently used and non-HAP cleaning materials. We assumed that new sources would use either powder coatings or lower-HAP coatings and non-HAP cleaning materials.

We first estimated the impacts of the emission limits on the five model plants. To scale up the model plant impacts to nationwide levels, we multiplied the individual model plant impacts by the estimated number of major sources in the United States corresponding to each plant size. We estimated that there are 1,500 existing major source facilities nationwide, and that an additional 45 new facilities will become affected sources each year.

A. What Are the Air Impacts?

For existing major sources, we estimated that compliance with the emission limits would result in reductions of nationwide organic HAP emissions of 25,822 tpy. This represents a reduction of about 48 percent from the 1997 baseline organic HAP emissions of 53,869 tpy.

To estimate the impacts of the final rule on new sources, we estimated the percentage of new facilities that would, in the absence of the standards, emit HAP at levels that would exceed the final rule. For new sources, we believe that many will use coating technologies that are considered to be "state-of-the-art" (*e.g.*, powder coatings and low-HAP liquid coatings). However, we assumed for the impacts estimation that the same percentage of both new and existing facilities would be noncomplying at baseline conditions. The baseline emission rate for these noncomplying facilities was assumed to be the same as that determined for the existing source model plants. Using these assumptions, we have estimated the nationwide organic HAP reductions resulting from new facilities complying with the final rule would be about 803 tpy from the 45 new sources that would become subject to the rule each year.

We predict that the emission limitations will not result in any significant secondary air impacts. We expect that the majority of facilities will switch to lower-or non-organic-HAP-containing materials to comply with the standards, rather than installing add-on control devices. Thus, increases in electricity consumption (which could lead to increases in emissions of nitrogen oxides, sulfur dioxide, carbon monoxide, and carbon dioxide from electric utilities) will be minimal.

B. What Are the Cost Impacts?

We have estimated the costs related to complying with the emission limitations and meeting the monitoring, recordkeeping, and reporting requirements. The costs to comply with the emission limitations include the increased cost of lower-HAP or non-HAP coating materials. Alternatively, facilities could choose to purchase, install, and operate capture systems and add-on control devices. We have assumed for this analysis that all affected facilities will comply through the use of lower-HAP containing or non-HAP coatings, thinners, and cleaning materials, and that these materials can be utilized without the need for capital expenditures. Annual costs for meeting the monitoring, recordkeeping, and reporting requirements of the final rule have also been included.

Existing Sources. We estimate total nationwide annual costs in the 5th year to comply with the emission limits to be $47.5 million for existing sources. These costs include approximately $8.9 million for direct costs associated with material usage and $38.6 million for recordkeeping and reporting.

To comply with the final rule, existing facilities will likely use lower-HAP or non-HAP coatings, thinners, and cleaning materials because such materials are generally available and becoming more widely available each year. Compliance costs were estimated

to be the incremental cost difference between the materials currently used and the complying materials. Estimates of cost impacts were based on five model plants that were developed to represent the range of sizes and coating materials found throughout the industry. Each model plant was assumed to comply with the final rule by switching to non-HAP adhesives, surface preparation materials and cleaning materials and reducing the organic HAP content of the coatings and thinners. The annual incremental cost of the reformulated raw materials ranged from approximately $2,635 for model plant 1, representing the segment of industry with the lowest coating solids usage; to $114,540 for model plant 5, representing the segment of industry that uses over 75,000 gal of coating solids. The nationwide cost impact was estimated for each industry segment by multiplying the annual costs for each model plant by the number of facilities represented by that model plant. A total nationwide cost impact associated with material usage was estimated by summing the nationwide costs for each of the five industry segments. In addition, we included estimates for monitoring, recordkeeping, and reporting costs for all 1,500 existing affected sources.

New Sources. We estimated total nationwide annual costs in the 5th year to comply with the emission limits to be $9.8 million for new sources. These costs include approximately $3.6 million for direct costs associated with material usage and $6.2 million for the costs of recordkeeping and reporting. These costs were estimated applying the same assumptions for estimating costs for existing sources. We estimated the number of new major sources to be 45 per year, based on an average growth rate of 3 percent per year.

C. What Are the Economic Impacts?

We prepared an economic impact analysis (EIA) to provide an estimate of the impacts the proposed rule would have on facilities, firms, and markets within this source category. Given the wide diversity of products that will be affected by the final rule, EPA relied upon estimated compliance costs and publicly available financial data on affected firms to determine these impacts.

In general, we expect the economic impacts of the final rule to be minimal, with little or no change in market prices or production. Therefore, no adverse impact will occur for those industries that consume coated metal parts such as building and construction, transportation equipment and vehicle parts, and other industrial and consumer products.

Based on the industry survey responses, EPA was able to identify 176 companies that owned 321 potentially affected facilities within this source category. Of this total, we obtained sales data for 147 companies and net income data for 76 companies. For those companies with sales data, the EIA indicates that these regulatory costs average less than 0.1 percent of company sales with a range from zero to 1.25 percent. For those companies with net income data, these regulatory costs average 0.2 percent of company net income with a range from zero to 3.6 percent. This analysis indicates that the cost of the final rule should not cause producers to cease or significantly alter their current operations. Hence, no firms or facilities are expected to be at risk of closure because of the final rule. For more information, consult Docket ID No. OAR–2003–0116 (formerly Docket No. A–97–34).

D. What Are the Non-Air Health, Environmental, and Energy Impacts?

Based on information from the industry survey responses, we found no indication that the use of lower-HAP or non-HAP content coatings, thinners, and cleaning materials at existing sources would result in any increase or decrease in non-air health, environmental, and energy impacts. There would be no change in the utility requirements associated with the use of these materials, so there would be no change in the amount of energy consumed as a result of the material conversion. Because new sources are expected to comply with the final rule through the use of lower-HAP or non-HAP coating technologies rather than add-on control devices, there would be no significant change in energy usage.

We estimate that the emission limitations will have a minimal impact on water quality because only a few facilities are expected to comply by making process modifications or by using add-on control devices that would generate wastewater. However, because many lower-HAP and non-HAP materials are waterborne, an increase in wastewater generation from cleaning activities may result. Although additional wastewater may be generated by facilities switching to waterborne coatings, the amount of wastewater generated by these facilities is not expected to increase significantly. We also estimate that the emission limitations will result in a decrease in the amount of both solid and hazardous waste from facilities, as the majority of facilities will be using lower-organic-HAP-containing materials which will result in a decrease in the amount of waste materials that will have to be disposed of as hazardous.

VI. Statutory and Executive Order Reviews

A. Executive Order 12866, Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), EPA must determine whether the regulatory action is "significant" and therefore subject to the Office of Management and Budget (OMB) review and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligation of recipients thereof; or

(4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

It has been determined that the final rule is not a "significant regulatory action" under the terms of Executive Order 12866 and is therefore not subject to OMB review.

B. Paperwork Reduction Act

The information collection requirements in the final rule have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501, *et seq.* The information collection requirements are not enforceable until OMB approves them.

The information collection requirements are based on notification, recordkeeping, and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A), which are mandatory for all operators subject to national emission standards. These recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414). All information submitted to EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to EPA policies set forth in 40 CFR part 2, subpart B.

The final rule requires maintaining records of all coatings, thinners, and cleaning materials data and calculations used to determine compliance. This information includes the volume used during each 12-month compliance period, mass fraction of organic HAP, density, and, for coatings only, volume fraction of coating solids.

If an add-on control device is used, records must be kept of the capture efficiency of the capture system, destruction or removal efficiency of the add-on control device, and the monitored operating parameters. In addition, records must be kept of each calculation of the affected sourcewide emissions for each 12-month compliance period and all data, calculations, test results, and other supporting information used to determine this value.

The monitoring, recordkeeping, and reporting burden in the 5th year after the effective date of the promulgated rule is estimated to be 824,343 labor hours at a cost of $44.76 million for new and existing sources.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose, or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9. When this information collection request is approved by OMB, the Agency will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number for the approved information collection requirements contained in the final rule.

C. Regulatory Flexibility Act

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the final rule. The EPA has also determined that the final rule will not have a significant economic impact on a substantial number of small entities. For purposes of assessing the impact of the final rule on small entities, small entity is defined as: (1) A small business according to Small Business Administration (SBA) size standards by NAICS code ranging from 100 to 1,000 employees or less than $5 million in annual sales; (2) a small governmental jurisdiction that is a government of a city, town, county, school district, or special district with a population of less than 50,000; or (3) a small organization that is any not-for-profit enterprise that is independently operated and is not dominant in its field. It should be noted that companies affected by the final rule and the small business definition applied to each industry by NAICS code is that listed in the SBA size standards (13 CFR part 121).

After considering the economic impacts of the final rule on small entities, EPA has concluded that this action will not have a significant economic impact on a substantial number of small entities. For purposes of assessing the impacts of the final rule on small entities, EPA conducted an assessment of the final rule on small businesses within the miscellaneous metal parts source category. Based on SBA size definitions and reported sales and employment data, EPA's survey identified 29 of the 147 companies owning major source facilities as small businesses. The average (median) total annual compliance cost is projected to be $59,000 ($36,000) per small company. Under the final rule, the average (median) annual compliance cost share of sales for small businesses was only 0.25 (0.04) percent with a range of zero to 1.25 percent.

Although the final rule will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has worked aggressively to minimize the impact of the final rule on small entities. We solicited input from small entities during the data-gathering phase of the rulemaking. We are promulgating compliance options that give small entities flexibility in choosing the most cost-effective and least burdensome alternative for their operation. For example, a facility could purchase and use lower-or non-HAP coatings, thinners, and cleaning materials (*i.e.*, pollution prevention) that meet the final rule rather than being required to purchase add-on control systems. The lower- or non-HAP option can be demonstrated with minimum burden by using already-maintained purchase and usage records. No testing of materials would be required as the facility owner could show that their coatings meet the emission limits by providing formulation data supplied by the manufacturer.

We are also providing one option that allows compliance demonstrations to be conducted on a rolling 12-month basis, meaning that the facility would each month calculate a 12-month organic HAP emission rate for the previous 12 months to determine compliance. This will give affected small entities extra flexibility in complying with the emission limits since small entities are more likely to use lower monthly volumes and/or a limited number of materials. Furthermore, we are promulgating the minimum monitoring, recordkeeping, and reporting requirements needed for enforcement and compliance assurance.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under Section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and

informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that the final rule does not contain a Federal mandate that may result in expenditures of $100 million or more to State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. The maximum total annual cost of the final rule for any 1 year has been estimated to be about $57.5 million. Thus, the final rule is not subject to the requirements of sections 202 and 205 of the UMRA. In addition, EPA has determined that the final rule contains no regulatory requirements that might significantly or uniquely affect small governments because it contains no requirements that apply to such governments or impose obligations upon them. Therefore, the final rule is not subject to the requirements of Section 203 of the UMRA.

E. Executive Order 13132: Federalism

Executive Order 13132 (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" are defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

The final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. Pursuant to the terms of Executive Order 13132, it has been determined that the final rule does not have "federalism implications" because it does not meet the necessary criteria. Thus, Executive Order 13132 does not apply to the final rule.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175 (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." The final rule does not have tribal implications, as specified in Executive Order 13175. The EPA is not aware of tribal governments that own or operate miscellaneous metal parts and products surface coating facilities. Thus, Executive Order 13175 does not apply to the final rule.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, EPA must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The final rule is not subject to Executive Order 13045 because it does not establish environmental standards based on an assessment of health or safety risks.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

The final rule is not subject to Executive Order 13211 (66 FR 28355, May 22, 2001) because it is not a "significant energy action" under Executive Order 12866.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113; section 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards (VCS) in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. The VCS are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by VCS bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable VCS.

The final rule involves technical standards. The EPA cites the following standards in the final rule: EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 3A, 3B, 4, 24, 25, 25A, 204, 204A–F, 311, and an alternative method to determine weight volatile matter content and weight solids content for reactive adhesives. Consistent with the NTTAA, EPA conducted searches to identify VCS in addition to these EPA methods/performance specifications. No applicable VCS were identified for EPA Methods 1A, 2A, 2D, 2F, 2G, 204, 204A through 204F, 311, and an alternative method to determine weight volatile matter content and weight solids content for reactive adhesives. The search and review results have been documented and are placed in Docket ID No. OAR–2003–0116 (formerly Docket No. A–97–34).

Six VCS: ASTM D1475–90, ASTM D2369–95, ASTM D3792–91, ASTM D4017–96a, ASTM D4457–85 (Reapproved 1991), and ASTM D5403–93 are already incorporated by reference (IBR) in EPA Method 24. In addition, we are separately specifying the use of ASTM D1475–98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products," for measuring the density of each coating, thinner and/or additive, and cleaning material. Five VCS: ASTM D1979–91, ASTM D3432–89, ASTM D4747–87, ASTM D4827–93, and ASTM PS9–94 are IBR in EPA Method 311.

Two VCS were identified for determining the volume fraction of coating solids for the final rule. The VCS are ASTM D2697–86 (Reapproved 1998), "Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings," and ASTM D6093–97 (Reapproved 2003), "Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer." These VCS fill a void in EPA Method 24 which directs that volume solids content be calculated from the coating manufacturer's formulation. The final rule does allow for the use of the volume solids content values calculated from the coating manufacturer's formulation; however, test results will take precedence if they do not agree with calculated values, unless after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct. In addition, ASTM D5965–02, "Standard Test Methods for Specific Gravity of Coating Powders," is specified in the final rule as a method to determine the volume solids of powder coatings.

The VCS, ASTM D5291–02, "Standard Test Methods for Instrumental Determination of Carbon,

Hydrogen, and Nitrogen in Petroleum Products and Lubricants," is specified in this rule to determine the weight fraction carbon content of each volatile distillate fraction obtained with Method 204F.

The VCS, ASTM D6053–00, "Standard Test Method for Determination of Volatile Organic Compound (VOC) Content of Electrical Insulating Varnishes," is also specified in this rule as an alternative method to EPA Method 24 to determine the mass fraction of total volatile hydrocarbon for magnet wire enamels.

In addition to the VCS EPA uses in the final rule, the search for emissions measurement procedures identified 14 other VCS. The EPA determined that 11 of these 14 VCS identified for measuring emissions of the HAP or surrogates subject to emission standards in the final rule are impractical alternatives to EPA test methods for the purposes of the final rule. Therefore, EPA does not intend to adopt the VCS for this purpose.

Three of the 14 VCS identified in this search were not available at the time the review was conducted for the purposes of the final rule because they are under development by a VCS body: ASME/BSR MFC 13M, "Flow Measurement by Velocity Traverse," for EPA Method 2 (and possibly 1); ASME/BSR MFC 12M, "Flow in Closed Conduits Using Multiport Averaging Pitot Primary Flowmeters," for EPA Method 2; and ISO/CD 17895, "Paints and Varnishes-Determination of the Volatile Organic Compound Content of Water-based Emulsion Paints," for EPA Method 24.

Under 40 CFR 63.7(f) and 63.8(f) of subpart A of the General Provisions, a source may apply to EPA for permission to use alternative test methods or alternative monitoring requirements in place of any of the EPA testing methods, performance specifications, or procedures.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801, *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing the final rule and other required information to the United States Senate, the United States House of Representatives, and the Comptroller General of the United States prior to publication of the final rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a major rule as defined by 5 U.S.C. 804(2). The rule will be effective January 2, 2004.

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: August 20, 2003.

Marianne Lamont Horinko,

Acting Administrator.

■ For the reasons stated in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is amended as follows:

PART 63—[AMENDED]

■ 1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

Subpart A—[Amended]

■ 2. Section 63.14 is amended by revising paragraphs (b)(24) (25), and (26), and adding new paragraphs (b)(31), (32), and (33) to read as follows:

§ 63.14 Incorporations by reference

* * * * *

(b) * * *

(24) ASTM D2697–86 (Reapproved 1998), Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, IBR approved for §§ 63.3521(b)(1), 63.3941(b)(1), 63.4141(b)(1), 63.4741(b)(1), 63.4941(b)(1), and 63.5160(c).

(25) ASTM D6093–97 (Reapproved 2003), Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer, IBR approved for §§ 63.3521(b)(1), 63.3941(b)(1), 63.4141(b)(1), 63.4741(b)(1), 63.4941(b)(1), and 63.5160(c).

(26) ASTM D1475–98, Standard Test Method for Density of Liquid Coatings, Inks, and Related Products, IBR approved for §§ 63.3941(b)(4), 63.3941(c), 63.3951(c), 63.4141(b)(3), and 63.4141(c).

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(31) ASTM D5291–02, Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants, IBR approved for § 63.3981, appendix A.

(32) ASTM D5965–02, Standard Test Methods for Specific Gravity of Coating Powders, IBR approved for § 63.3951(c).

(33) ASTM D6053–00, Standard Test Method for Determination of Volatile Organic Compound (VOC) Content of Electrical Insulating Varnishes, IBR approved for § 63.3981, appendix A.

* * * * *

■ 3. Part 63 is amended by adding subpart MMMM to read as follows:

Subpart MMMM—National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products

Sec.

What This Subpart Covers

63.3880 What is the purpose of this subpart?
63.3881 Am I subject to this subpart?
63.3882 What parts of my plant does this subpart cover?
63.3883 When do I have to comply with this subpart?

Emission Limitations

63.3890 What emission limits must I meet?
63.3891 What are my options for meeting the emission limits?
63.3892 What operating limits must I meet?
63.3893 What work practice standards must I meet?

General Compliance Requirements

63.3900 What are my general requirements for complying with this subpart?
63.3901 What parts of the General Provisions apply to me?

Notifications, Reports, and Records

63.3910 What notifications must I submit?
63.3920 What reports must I submit?
63.3930 What records must I keep?
63.3931 In what form and for how long must I keep my records?

Compliance Requirements for the Compliant Material Option

63.3940 By what date must I conduct the initial compliance demonstration?
63.3941 How do I demonstrate initial compliance with the emission limitations?
63.3942 How do I demonstrate continuous compliance with the emission limitations?

Compliance Requirements for the Emission Rate Without Add-On Controls Option

63.3950 By what date must I conduct the initial compliance demonstration?
63.3951 How do I demonstrate initial compliance with the emission limitations?
63.3952 How do I demonstrate continuous compliance with the emission limitations?

Compliance Requirements for the Emission Rate With Add-On Controls Option

63.3960 By what date must I conduct performance tests and other initial compliance demonstrations?
63.3961 How do I demonstrate initial compliance?
63.3962 [Reserved]

63.3963 How do I demonstrate continuous compliance with the emission limitations?
63.3964 What are the general requirements for performance tests?
63.3965 How do I determine the emission capture system efficiency?
63.3966 How do I determine the add-on control device emission destruction or removal efficiency?
63.3967 How do I establish the emission capture system and add-on control device operating limits during the performance test?
63.3968 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?

Other Requirements and Information

63.3980 Who implements and enforces this subpart?
63.3981 What definitions apply to this subpart?

Tables to Subpart MMMM of Part 63

Table 1 to Subpart MMMM of Part 63—Operating Limits if Using the Emission Rate with Add-on Controls Option
Table 2 to Subpart MMMM of Part 63—Applicability of General Provisions to Subpart MMMM of Part 63
Table 3 to Subpart MMMM of Part 63—Default Organic HAP Mass Fraction for Solvents and Solvent Blends
Table 4 to Subpart MMMM of Part 63—Default Organic HAP Mass Fraction for Petroleum Solvent Groups

Appendix A to Subpart MMMM of Part 63—Alternative Capture Efficiency and Destruction Efficiency Measurement and Capture Efficiency Monitoring Procedures for Magnet Wire Coating Operations

Subpart MMMM—National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products

What This Subpart Covers

§ 63.3880 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for miscellaneous metal parts and products surface coating facilities. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§ 63.3881 Am I subject to this subpart?

(a) Miscellaneous metal parts and products include, but are not limited to, metal components of the following types of products as well as the products themselves: motor vehicle parts and accessories, bicycles and sporting goods, recreational vehicles, extruded aluminum structural components, railroad cars, heavy duty trucks, medical equipment, lawn and garden equipment, electronic equipment, magnet wire, steel drums, industrial machinery, metal pipes, and numerous other industrial, household, and consumer products. Except as provided in paragraph (c) of this section, the source category to which this subpart applies is the surface coating of any miscellaneous metal parts or products, as described in paragraph (a)(1) of this section, and it includes the subcategories listed in paragraphs (a)(2) through (6) of this section.

(1) Surface coating is the application of coating to a substrate using, for example, spray guns or dip tanks. When application of coating to a substrate occurs, then surface coating also includes associated activities, such as surface preparation, cleaning, mixing, and storage. However, these activities do not comprise surface coating if they are not directly related to the application of the coating. Coating application with handheld, non-refillable aerosol containers, touch-up markers, marking pens, or the application of paper film or plastic film which may be pre-coated with an adhesive by the manufacturer are not coating operations for the purposes of this subpart.

(2) The general use coating subcategory includes all surface coating operations that are not high performance, magnet wire, rubber-to-metal, or extreme performance fluoropolymer coating operations.

(3) The high performance coating subcategory includes surface coating operations that are performed using coatings that meet the definition of high performance architectural coating or high temperature coating in § 63.3981.

(4) The magnet wire coating subcategory includes surface coating operations that are performed using coatings that meet the definition of magnet wire coatings in § 63.3981.

(5) The rubber-to-metal coatings subcategory includes surface coating operations that are performed using coatings that meet the definition of rubber-to-metal coatings in § 63.3981.

(6) The extreme performance fluoropolymer coatings subcategory includes surface coating operations that are performed using coatings that meet the definition of extreme performance fluoropolymer coatings in § 63.3981.

(b) You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source, as defined in § 63.3882, that uses 946 liters (250 gallons (gal)) per year, or more, of coatings that contain hazardous air pollutants (HAP) in the surface coating of miscellaneous metal parts and products defined in paragraph (a) of this section; and that is a major source, is located at a major source, or is part of a major source of emissions of HAP. A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year or any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year. You do not need to include coatings that meet the definition of non-HAP coating contained in § 63.3981 in determining whether you use 946 liters (250 gal) per year, or more, of coatings in the surface coating of miscellaneous metal parts and products.

(c) This subpart does not apply to surface coating or a coating operation that meets any of the criteria of paragraphs (c)(1) through (17) of this section.

(1) A coating operation conducted at a facility where the facility uses only coatings, thinners and other additives, and cleaning materials that contain no organic HAP, as determined according to § 63.3941(a).

(2) Surface coating operations that occur at research or laboratory facilities, or is part of janitorial, building, and facility maintenance operations, or that occur at hobby shops that are operated for noncommercial purposes.

(3) Coatings used in volumes of less than 189 liters (50 gal) per year, provided that the total volume of coatings exempt under this paragraph does not exceed 946 liters (250 gal) per year at the facility.

(4) The surface coating of metal parts and products performed on-site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State) or the National Aeronautics and Space Administration, or the surface coating of military munitions manufactured by or for the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State).

(5) Surface coating where plastic is extruded onto metal wire or cable or metal parts or products to form a coating.

(6) Surface coating of metal components of wood furniture that meet the applicability criteria for wood furniture manufacturing (subpart JJ of this part).

(7) Surface coating of metal components of large appliances that meet the applicability criteria for large appliance surface coating (subpart NNNN of this part).

(8) Surface coating of metal components of metal furniture that meet

the applicability criteria for metal furniture surface coating (subpart RRRR of this part).

(9) Surface coating of metal components of wood building products that meet the applicability criteria for wood building products surface coating (subpart QQQQ of this part).

(10) Surface coating of metal components of aerospace vehicles that meet the applicability criteria for aerospace manufacturing and rework (40 CFR part 63, subpart GG).

(11) Surface coating of metal parts intended for use in an aerospace vehicle or component using specialty coatings as defined in appendix A to subpart GG of this part.

(12) Surface coating of metal components of ships that meet the applicability criteria for shipbuilding and ship repair (subpart II of this part).

(13) Surface coating of metal using a web coating process that meets the applicability criteria for paper and other web coating (subpart JJJJ of this part).

(14) Surface coating of metal using a coil coating process that meets the applicability criteria for metal coil coating (subpart SSSS of this part).

(15) Surface coating of boats or metal parts of boats (including, but not limited to, the use of assembly adhesives) where the facility meets the applicability criteria for boat manufacturing facilities (subpart VVVV of this part), except where the surface coating of the boat is a metal coating operation performed on personal watercraft or parts of personal watercraft. This subpart does apply to metal coating operations performed on personal watercraft and parts of personal watercraft.

(16) Surface coating of assembled on-road vehicles that meet the applicability criteria for the assembled on-road vehicle subcategory in plastic parts and products surface coating (40 CFR part 63, subpart PPPP).

(17) Reserved.

(d) Reserved.

(e) If you own or operate an affected source that meets the applicability criteria of this subpart and at the same facility you also perform surface coating that meets the applicability criteria of any other final surface coating NESHAP in this part you may choose to comply as specified in paragraph (e)(1), (2), or (3) of this section.

(1) You may have each surface coating operation that meets the applicability criteria of a separate NESHAP comply with that NESHAP separately.

(2) You may comply with the emission limitation representing the predominant surface coating activity at your facility, as determined according to paragraphs (e)(2)(i) through (ii) of this section. However, you may not establish high performance, rubber-to-metal, and extreme performance fluoropolymer coating operations as the predominant activity.

(i) If a surface coating operation accounts for 90 percent or more of the surface coating activity at your facility (that is, the predominant activity), then compliance with the emission limitations of the predominant activity for all surface coating operations constitutes compliance with these and other applicable surface coating NESHAP. In determining predominant activity, you must include coating activities that meet the applicability criteria of other surface coating NESHAP and constitute more than 1 percent of total coating activities at your facility. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than 1 percent of coating activities need not be included in the determination of predominant activity but must be included in the compliance calculation.

(ii) You must use liters (gal) of solids used as a measure of relative surface coating activity over a representative period of operation. You may estimate the relative volume of coating solids used from parameters other than coating consumption and volume solids content (*e.g.*, design specifications for the parts or products coated and the number of items produced). The determination of predominant activity must accurately reflect current and projected coating operations and must be verifiable through appropriate documentation. The use of parameters other than coating consumption and volume solids content must be approved by the Administrator. You may use data for any reasonable time period of at least 1 year in determining the relative amount of coating activity, as long as they represent the way the source will continue to operate in the future and are approved by the Administrator. You must determine the predominant activity at your facility and submit the results of that determination with the initial notification required by § 63.3910(b). You must also determine predominant activity annually and include the determination in the next semi-annual compliance report required by § 63.3920(a).

(3) You may comply with a facility-specific emission limit calculated from the relative amount of coating activity that is subject to each emission limit. If you elect to comply using the facility-specific emission limit alternative, then compliance with the facility-specific emission limit and the emission limitations in this subpart for all surface coating operations constitutes compliance with this and other applicable surface coating NESHAP. The procedures for calculating the facility-specific emission limit are specified in § 63.3890. In calculating a facility-specific emission limit, you must include coating activities that meet the applicability criteria of other surface coating NESHAP and constitute more than 1 percent of total coating activities at your facility. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than 1 percent of total coating activities need not be included in the calculation of the facility-specific emission limit. Compliance with the facility-specific emission limit and all other applicable provisions of this subpart for all surface coating operations constitutes compliance with this and all other applicable surface coating NESHAP.

§ 63.3882 What parts of my plant does this subpart cover?

(a) This subpart applies to each new, reconstructed, and existing affected source within each of the four subcategories listed in § 63.3881(a).

(b) The affected source is the collection of all of the items listed in paragraphs (b)(1) through (4) of this section that are used for surface coating of miscellaneous metal parts and products within each subcategory.

(1) All coating operations as defined in § 63.3981;

(2) All storage containers and mixing vessels in which coatings, thinners and/or other additives, and cleaning materials are stored or mixed;

(3) All manual and automated equipment and containers used for conveying coatings, thinners and/or other additives, and cleaning materials; and

(4) All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.

(c) An affected source is a new affected source if you commenced its construction after August 13, 2002 and the construction is of a completely new miscellaneous metal parts and products surface coating facility where previously no miscellaneous metal parts and products surface coating facility had existed.

(d) An affected source is reconstructed if it meets the criteria as defined in § 63.2.

(e) An affected source is existing if it is not new or reconstructed.

§ 63.3883 When do I have to comply with this subpart?

The date by which you must comply with this subpart is called the compliance date. The compliance date for each type of affected source is specified in paragraphs (a) through (c) of this section. The compliance date begins the initial compliance period during which you conduct the initial compliance demonstration described in §§ 63.3940, 63.3950, and 63.3960.

(a) For a new or reconstructed affected source, the compliance date is the applicable date in paragraph (a)(1) or (2) of this section:

(1) If the initial startup of your new or reconstructed affected source is before January 2, 2004, the compliance date is January 2, 2004.

(2) If the initial startup of your new or reconstructed affected source occurs after January 2, 2004, the compliance date is the date of initial startup of your affected source.

(b) For an existing affected source, the compliance date is the date 3 years after January 2, 2004.

(c) For an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP emissions, the compliance date is specified in paragraphs (c)(1) and (2) of this section.

(1) For any portion of the source that becomes a new or reconstructed affected source subject to this subpart, the compliance date is the date of initial startup of the affected source or January 2, 2004, whichever is later.

(2) For any portion of the source that becomes an existing affected source subject to this subpart, the compliance date is the date 1 year after the area source becomes a major source or 3 years after January 2, 2004, whichever is later.

(d) You must meet the notification requirements in § 63.3910 according to the dates specified in that section and in subpart A of this part. Some of the notifications must be submitted before the compliance dates described in paragraphs (a) through (c) of this section.

Emission Limitations

§ 63.3890 What emission limits must I meet?

(a) For a new or reconstructed affected source, you must limit organic HAP emissions to the atmosphere from the affected source to the applicable limit specified in paragraphs (a)(1) through (5) of this section, except as specified in paragraph (c) of this section, determined according to the requirements in § 63.3941, § 63.3951, or § 63.3961.

(1) For each new general use coating affected source, limit organic HAP emissions to no more than 0.23 kilograms (kg) (1.9 pound (lb)) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(2) For each new high performance coating affected source, limit organic HAP emissions to no more than 3.3 kg (27.5 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(3) For each new magnet wire coating affected source, limit organic HAP emissions to no more than 0.050 kg (0.44 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(4) For each new rubber-to-metal coating affected source, limit organic HAP emissions to no more than 0.81 kg (6.8 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(5) For each new extreme performance fluoropolymer coating affected source, limit organic HAP emissions to no more than 1.5 kg (12.4 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(b) For an existing affected source, you must limit organic HAP emissions to the atmosphere from the affected source to the applicable limit specified in paragraphs (b)(1) through (5) of this section, except as specified in paragraph (c) of this section, determined according to the requirements in § 63.3941, § 63.3951, or § 63.3961.

(1) For each existing general use coating affected source, limit organic HAP emissions to no more than 0.31 kg (2.6 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(2) For each existing high performance coating affected source, limit organic HAP emissions to no more than 3.3 kg (27.5 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(3) For each existing magnet wire coating affected source, limit organic HAP emissions to no more than 0.12 kg (1.0 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(4) For each existing rubber-to-metal coating affected source, limit organic HAP emissions to no more than 4.5 kg (37.7 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(5) For each existing extreme performance fluoropolymer coating affected source, limit organic HAP emissions to no more than 1.5 kg (12.4 lbs) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(c) If your facility's surface coating operations meet the applicability criteria of more than one of the subcategory emission limits specified in paragraphs (a) or (b) of this section, you may comply separately with each subcategory emission limit or comply using one of the alternatives in paragraph (c)(1) or (2) of this section.

(1) If the general use or magnet wire surface coating operations subject to only one of the emission limits specified in paragraphs (a)(1), (3), (b)(1), or (3) of this section account for 90 percent or more of the surface coating activity at your facility (*i.e.*, it is the predominant activity at your facility), then compliance with that one emission limitations in this subpart for all surface coating operations constitutes compliance with the other applicable emission limits. You must use liters (gal) of solids used as a measure of relative surface coating activity over a representative period of operation. You may estimate the relative volume of coating solids used from parameters other than coating consumption and volume solids content (*e.g.*, design specifications for the parts or products coated and the number of items produced). The determination of predominant activity must accurately reflect current and projected coating operations and must be verifiable through appropriate documentation. The use of parameters other than coating consumption and volume solids content must be approved by the Administrator. You may use data for any reasonable time period of at least 1 year in determining the relative amount of coating activity, as long as they represent the way the source will continue to operate in the future and are approved by the Administrator. You must determine the predominant activity at your facility and submit the results of that determination with the initial notification required by § 63.3910(b). Additionally, you must determine the facility's predominant activity annually and include the determination in the next semi-annual compliance report required by § 63.3920(a).

(2) You may calculate and comply with a facility-specific emission limit as described in paragraphs (c)(2)(i) through (iii) of this section. If you elect to comply using the facility-specific emission limit alternative, then compliance with the facility-specific emission limit and the emission limitations in this subpart for all surface coating operations constitutes compliance with this and other

applicable surface coating NESHAP. In calculating a facility-specific emission limit, you must include coating activities that meet the applicability criteria of the other subcategories and constitute more than 1 percent of total coating activities. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than 1 percent of coating activities need not be included in the determination of predominant activity but must be included in the compliance calculation.

(i) You are required to calculate the facility-specific emission limit for your facility when you submit the notification of compliance status required in § 63.3910(c), and on a monthly basis afterward using the coating data for the relevant 12-month compliance period.

(ii) Use Equation 1 of this section to calculate the facility-specific emission limit for your surface coating operations for each 12-month compliance period.

$$\text{Facility - Specific Emission Limit} = \frac{\sum_{i=1}^{n}(\text{Limit}_i)(\text{Solids}_i)}{\sum_{i=1}^{n}(\text{Solids}_i)} \quad \text{(Eq. 1)}$$

Where:

Facility-specific emission limit = Facility-specific emission limit for each 12-month compliance period, kg (lb) organic HAP per kg (lb) coating solids used.

Limit_i = The new source or existing source emission limit applicable to coating operation, i, included in the facility-specific emission limit, converted to kg (lb) organic HAP per kg (lb) coating solids used, if the emission limit is not already in those units. All emission limits included in the facility-specific emission limit must be in the same units.

Solids_i = The liters (gal) of solids used in coating operation, i, in the 12-month compliance period that is subject to emission limit, i. You may estimate the volume of coating solids used from parameters other than coating consumption and volume solids content (*e.g.*, design specifications for the parts or products coated and the number of items produced). The use of parameters other than coating consumption and volume solids content must be approved by the Administrator.

n = The number of different coating operations included in the facility-specific emission limit.

(iii) If you need to convert an emission limit in another surface coating NESHAP from kg (lb) organic HAP per kg (lb) coating solids used to kg (lb) organic HAP per liter (gal) coating solids used, you must use the default solids density of 1.26 kg solids per liter coating solids (10.5 lb solids per gal solids).

§ 63.3891 What are my options for meeting the emission limits?

You must include all coatings (as defined in § 63.3981), thinners and/or other additives, and cleaning materials used in the affected source when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in § 63.3890. To make this determination, you must use at least one of the three compliance options listed in paragraphs (a) through (c) of this section. You may apply any of the compliance options to an individual coating operation, or to multiple coating operations as a group, or to the entire affected source. You may use different compliance options for different coating operations, or at different times on the same coating operation. You may employ different compliance options when different coatings are applied to the same part, or when the same coating is applied to different parts. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document this switch as required by § 63.3930(c), and you must report it in the next semiannual compliance report required in § 63.3920.

(a) *Compliant material option.* Demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit in § 63.3890, and that each thinner and/or other additive, and cleaning material used contains no organic HAP. You must meet all the requirements of §§ 63.3940, 63.3941, and 63.3942 to demonstrate compliance with the applicable emission limit using this option.

(b) *Emission rate without add-on controls option.* Demonstrate that, based on the coatings, thinners and/or other additives, and cleaning materials used in the coating operation(s), the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in § 63.3890, calculated as a rolling 12-month emission rate and determined on a monthly basis. You must meet all the requirements of §§ 63.3950, 63.3951, and 63.3952 to demonstrate compliance with the emission limit using this option.

(c) *Emission rate with add-on controls option.* Demonstrate that, based on the coatings, thinners and/or other additives, and cleaning materials used in the coating operation(s), and the emissions reductions achieved by emission capture systems and add-on controls, the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in § 63.3890, calculated as a rolling 12-month emission rate and determined on a monthly basis. If you use this compliance option, you must also demonstrate that all emission capture systems and add-on control devices for the coating operation(s) meet the operating limits required in § 63.3892, except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.3961(j), and that you meet the work practice standards required in § 63.3893. You must meet all the requirements of §§ 63.3960 through 63.3968 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

§ 63.3892 What operating limits must I meet?

(a) For any coating operation(s) on which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any operating limits.

(b) For any controlled coating operation(s) on which you use the emission rate with add-on controls option, except those for which you use a solvent recovery system and conduct

a liquid-liquid material balance according to § 63.3961(j), you must meet the operating limits specified in Table 1 to this subpart. These operating limits apply to the emission capture and control systems on the coating operation(s) for which you use this option, and you must establish the operating limits during the performance test according to the requirements in § 63.3967. You must meet the operating limits at all times after you establish them.

(c) If you use an add-on control device other than those listed in Table 1 to this subpart, or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of alternative monitoring under § 63.8(f).

§ 63.3893 What work practice standards must I meet?

(a) For any coating operation(s) on which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any work practice standards.

(b) If you use the emission rate with add-on controls option, you must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners and/or other additives, and cleaning materials used in, and waste materials generated by the controlled coating operation(s) for which you use this option; or you must meet an alternative standard as provided in paragraph (c) of this section. The plan must specify practices and procedures to ensure that, at a minimum, the elements specified in paragraphs (b)(1) through (5) of this section are implemented.

(1) All organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be stored in closed containers.

(2) Spills of organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be minimized.

(3) Organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.

(4) Mixing vessels which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents.

(5) Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment.

(c) As provided in § 63.6(g), we, the U.S. Environmental Protection Agency, may choose to grant you permission to use an alternative to the work practice standards in this section.

General Compliance Requirements

§ 63.3900 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations in this subpart as specified in paragraphs (a)(1) and (2) of this section.

(1) Any coating operation(s) for which you use the compliant material option or the emission rate without add-on controls option, as specified in § 63.3891(a) and (b), must be in compliance with the applicable emission limit in § 63.3890 at all times.

(2) Any coating operation(s) for which you use the emission rate with add-on controls option, as specified in § 63.3891(c), must be in compliance with the emission limitations as specified in paragraphs (a)(2)(i) through (iii) of this section.

(i) The coating operation(s) must be in compliance with the applicable emission limit in § 63.3890 at all times except during periods of startup, shutdown, and malfunction.

(ii) The coating operation(s) must be in compliance with the operating limits for emission capture systems and add-on control devices required by § 63.3892 at all times except during periods of startup, shutdown, and malfunction, and except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.3961(j).

(iii) The coating operation(s) must be in compliance with the work practice standards in § 63.3893 at all times.

(b) You must always operate and maintain your affected source, including all air pollution control and monitoring equipment you use for purposes of complying with this subpart, according to the provisions in § 63.6(e)(1)(i).

(c) If your affected source uses an emission capture system and add-on control device, you must develop and implement a written startup, shutdown, and malfunction plan according to the provisions in § 63.6(e)(3). The plan must address the startup, shutdown, and corrective actions in the event of a malfunction of the emission capture system or the add-on control device. The plan must also address any coating operation equipment that may cause increased emissions or that would affect capture efficiency if the process equipment malfunctions, such as conveyors that move parts among enclosures.

§ 63.3901 What parts of the General Provisions apply to me?

Table 2 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

Notifications, Reports, and Records

§ 63.3910 What notifications must I submit?

(a) *General.* You must submit the notifications in §§ 63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (e) and (h) that apply to you by the dates specified in those sections, except as provided in paragraphs (b) and (c) of this section.

(b) *Initial notification.* You must submit the initial notification required by § 63.9(b) for a new or reconstructed affected source no later than 120 days after initial startup or 120 days after January 2, 2004, whichever is later. For an existing affected source, you must submit the initial notification no later than 1 year after January 2, 2004. If you are using compliance with the Automobiles and Light-Duty Trucks NESHAP (subpart IIII of this part) under § 63.3881(d) to constitute compliance with this subpart for your metal part coating operations, then you must include a statement to this effect in your initial notification and no other notifications are required under this subpart. If you are complying with another NESHAP that constitutes the predominant activity at your facility under § 63.3881(e)(2) to constitute compliance with this subpart for your metal coating operations, then you must include a statement to this effect in your initial notification and no other notifications are required under this subpart.

(c) *Notification of compliance status.* You must submit the notification of compliance status required by § 63.9(h) no later than 30 calendar days following the end of the initial compliance period described in §§ 63.3940, 63.3950, or 63.3960 that applies to your affected source. The notification of compliance status must contain the information specified in paragraphs (c)(1) through (11) of this section and in § 63.9(h).

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of the report and beginning and ending dates of the reporting period. The reporting period is the initial compliance period described in §§ 63.3940, 63.3950, or 63.3960 that applies to your affected source.

(4) Identification of the compliance option or options specified in § 63.3891 that you used on each coating operation in the affected source during the initial compliance period.

(5) Statement of whether or not the affected source achieved the emission limitations for the initial compliance period.

(6) If you had a deviation, include the information in paragraphs (c)(6)(i) and (ii) of this section.

(i) A description and statement of the cause of the deviation.

(ii) If you failed to meet the applicable emission limit in § 63.3890, include all the calculations you used to determine the kg (lb) of organic HAP emitted per liter (gal) coating solids used. You do not need to submit information provided by the materials' suppliers or manufacturers, or test reports.

(7) For each of the data items listed in paragraphs (c)(7)(i) through (iv) of this section that is required by the compliance option(s) you used to demonstrate compliance with the emission limit, include an example of how you determined the value, including calculations and supporting data. Supporting data may include a copy of the information provided by the supplier or manufacturer of the example coating or material, or a summary of the results of testing conducted according to § 63.3941(a), (b), or (c). You do not need to submit copies of any test reports.

(i) Mass fraction of organic HAP for one coating, for one thinner and/or other additive, and for one cleaning material.

(ii) Volume fraction of coating solids for one coating.

(iii) Density for one coating, one thinner and/or other additive, and one leaning material, except that if you use the compliant material option, only the example coating density is required.

(iv) The amount of waste materials and the mass of organic HAP contained in the waste materials for which you are claiming an allowance in Equation 1 of § 63.3951.

(8) The calculation of kg (lb) of organic HAP emitted per liter (gal) coating solids used for the compliance option(s) you used, as specified in paragraphs (c)(8)(i) through (iii) of this section.

(i) For the compliant material option, provide an example calculation of the organic HAP content for one coating, using Equation 2 of § 63.3941.

(ii) For the emission rate without add-on controls option, provide the calculation of the total mass of organic HAP emissions for each month; the calculation of the total volume of coating solids used each month; and the calculation of the 12-month organic HAP emission rate using Equations 1 and 1A through 1C, 2, and 3, respectively, of § 63.3951.

(iii) For the emission rate with add-on controls option, provide the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month, using Equations 1 and 1A through 1C of § 63.3951; the calculation of the total volume of coating solids used each month using Equation 2 of § 63.3951; the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of § 63.3961 and Equations 2, 3, and 3A through 3C of § 63.3961 as applicable; the calculation of the total mass of organic HAP emissions each month using Equation 4 of § 63.3961; and the calculation of the 12-month organic HAP emission rate using Equation 5 of § 63.3961.

(9) For the emission rate with add-on controls option, you must include the information specified in paragraphs (c)(9)(i) through (iv) of this section, except that the requirements in paragraphs (c)(9)(i) through (iii) of this section do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.3961(j).

(i) For each emission capture system, a summary of the data and copies of the calculations supporting the determination that the emission capture system is a permanent total enclosure (PTE) or a measurement of the emission capture system efficiency. Include a description of the protocol followed for measuring capture efficiency, summaries of any capture efficiency tests conducted, and any calculations supporting the capture efficiency determination. If you use the data quality objective (DQO) or lower confidence limit (LCL) approach, you must also include the statistical calculations to show you meet the DQO or LCL criteria in appendix A to subpart KK of this part. You do not need to submit complete test reports.

(ii) A summary of the results of each add-on control device performance test. You do not need to submit complete test reports.

(iii) A list of each emission capture system's and add-on control device's operating limits and a summary of the data used to calculate those limits.

(iv) A statement of whether or not you developed and implemented the work practice plan required by § 63.3893.

(10) If you are complying with a single emission limit representing the predominant activity under § 63.3890(c)(1), include the calculations and supporting information used to demonstrate that this emission limit represents the predominant activity as specified in § 63.3890(c)(1).

(11) If you are complying with a facility-specific emission limit under § 63.3890(c)(2), include the calculation of the facility-specific emission limit and any supporting information as specified in § 63.3890(c)(2).

§ 63.3920 What reports must I submit?

(a) *Semiannual compliance reports.* You must submit semiannual compliance reports for each affected source according to the requirements of paragraphs (a)(1) through (7) of this section. The semiannual compliance reporting requirements may be satisfied by reports required under other parts of the Clean Air Act (CAA), as specified in paragraph (a)(2) of this section.

(1) *Dates.* Unless the Administrator has approved or agreed to a different schedule for submission of reports under § 63.10(a), you must prepare and submit each semiannual compliance report according to the dates specified in paragraphs (a)(1)(i) through (iv) of this section. Note that the information reported for each of the months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(i) The first semiannual compliance report must cover the first semiannual reporting period which begins the day after the end of the initial compliance period described in § 63.3940, § 63.3950, or § 63.3960 that applies to your affected source and ends on June 30 or December 31, whichever date is the first date following the end of the initial compliance period.

(ii) Each subsequent semiannual compliance report must cover the subsequent semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(iii) Each semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(iv) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of

according to the date specified in paragraph (a)(1)(iii) of this section.

(2) *Inclusion with title V report.* Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a semiannual compliance report pursuant to this section along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the semiannual compliance report includes all required information concerning deviations from any emission limitation in this subpart, its submission will be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a semiannual compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permitting authority.

(3) *General requirements.* The semiannual compliance report must contain the information specified in paragraphs (a)(3)(i) through (vii) of this section, and the information specified in paragraphs (a)(4) through (7) and (c)(1) of this section that is applicable to your affected source.

(i) Company name and address.

(ii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(iii) Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31. Note that the information reported for each of the 6 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(iv) Identification of the compliance option or options specified in § 63.3891 that you used on each coating operation during the reporting period. If you switched between compliance options during the reporting period, you must report the beginning and ending dates for each option you used.

(v) If you used the emission rate without add-on controls or the emission rate with add-on controls compliance option (§ 63.3891(b) or (c)), the calculation results for each rolling 12-month organic HAP emission rate during the 6-month reporting period.

(vi) If you used the predominant activity alternative (§ 63.3890(c)(1)), include the annual determination of predominant activity if it was not included in the previous semi-annual compliance report.

(vii) If you used the facility-specific emission limit alternative (§ 63.3890(c)(2)), include the calculation of the facility-specific emission limit for each 12-month compliance period during the 6-month reporting period.

(4) *No deviations.* If there were no deviations from the emission limitations in §§ 63.3890, 63.3892, and 63.3893 that apply to you, the semiannual compliance report must include a statement that there were no deviations from the emission limitations during the reporting period. If you used the emission rate with add-on controls option and there were no periods during which the continuous parameter monitoring systems (CPMS) were out-of-control as specified in § 63.8(c)(7), the semiannual compliance report must include a statement that there were no periods during which the CPMS were out-of-control during the reporting period.

(5) *Deviations: Compliant material option.* If you used the compliant material option and there was a deviation from the applicable organic HAP content requirements in § 63.3890, the semiannual compliance report must contain the information in paragraphs (a)(5)(i) through (iv) of this section.

(i) Identification of each coating used that deviated from the applicable emission limit, and each thinner and/or other additive, and cleaning material used that contained organic HAP, and the dates and time periods each was used.

(ii) The calculation of the organic HAP content (using Equation 2 of § 63.3941) for each coating identified in paragraph (a)(5)(i) of this section. You do not need to submit background data supporting this calculation (*e.g.*, information provided by coating suppliers or manufacturers, or test reports).

(iii) The determination of mass fraction of organic HAP for each thinner and/or other additive, and cleaning material identified in paragraph (a)(5)(i) of this section. You do not need to submit background data supporting this calculation (*e.g.*, information provided by material suppliers or manufacturers, or test reports).

(iv) A statement of the cause of each deviation.

(6) *Deviations: Emission rate without add-on controls option.* If you used the emission rate without add-on controls option and there was a deviation from the applicable emission limit in § 63.3890, the semiannual compliance report must contain the information in paragraphs (a)(6)(i) through (iii) of this section.

(i) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in § 63.3890.

(ii) The calculations used to determine the 12-month organic HAP emission rate for the compliance period in which the deviation occurred. You must submit the calculations for Equations 1, 1A through 1C, 2, and 3 of § 63.3951; and if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.3951(e)(4). You do not need to submit background data supporting these calculations (*e.g.*, information provided by materials suppliers or manufacturers, or test reports).

(iii) A statement of the cause of each deviation.

(7) *Deviations: Emission rate with add-on controls option.* If you used the emission rate with add-on controls option and there was a deviation from an emission limitation (including any periods when emissions bypassed the add-on control device and were diverted to the atmosphere), the semiannual compliance report must contain the information in paragraphs (a)(7)(i) through (xiv) of this section. This includes periods of startup, shutdown, and malfunction during which deviations occurred.

(i) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in § 63.3890.

(ii) The calculations used to determine the 12-month organic HAP emission rate for each compliance period in which a deviation occurred. You must provide the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1 and 1A through 1C of § 63.3951; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.3951(e)(4); the calculation of the total volume of coating solids used each month using Equation 2 of § 63.3951; the calculation of the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of § 63.3961, and Equations 2, 3, and 3A through 3C of § 63.3961, as applicable; the calculation of the total mass of organic HAP emissions each month using Equation 4 of § 63.3961; and the calculation of the 12-month

organic HAP emission rate using Equation 5 of § 63.3961. You do not need to submit the background data supporting these calculations (*e.g.*, information provided by materials suppliers or manufacturers, or test reports).

(iii) The date and time that each malfunction started and stopped.

(iv) A brief description of the CPMS.

(v) The date of the latest CPMS certification or audit.

(vi) The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.

(vii) The date, time, and duration that each CPMS was out-of-control, including the information in § 63.8(c)(8).

(viii) The date and time period of each deviation from an operating limit in Table 1 to this subpart; date and time period of any bypass of the add-on control device; and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(ix) A summary of the total duration of each deviation from an operating limit in Table 1 to this subpart and each bypass of the add-on control device during the semiannual reporting period, and the total duration as a percent of the total source operating time during that semiannual reporting period.

(x) A breakdown of the total duration of the deviations from the operating limits in Table 1 of this subpart and bypasses of the add-on control device during the semiannual reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(xi) A summary of the total duration of CPMS downtime during the semiannual reporting period and the total duration of CPMS downtime as a percent of the total source operating time during that semiannual reporting period.

(xii) A description of any changes in the CPMS, coating operation, emission capture system, or add-on control device since the last semiannual reporting period.

(xiii) For each deviation from the work practice standards, a description of the deviation, the date and time period of the deviation, and the actions you took to correct the deviation.

(xiv) A statement of the cause of each deviation.

(b) *Performance test reports.* If you use the emission rate with add-on controls option, you must submit reports of performance test results for emission capture systems and add-on control devices no later than 60 days after completing the tests as specified in § 63.10(d)(2).

(c) *Startup, shutdown, malfunction reports.* If you used the emission rate with add-on controls option and you had a startup, shutdown, or malfunction during the semiannual reporting period, you must submit the reports specified in paragraphs (c)(1) and (2) of this section.

(1) If your actions were consistent with your startup, shutdown, and malfunction plan, you must include the information specified in § 63.10(d) in the semiannual compliance report required by paragraph (a) of this section.

(2) If your actions were not consistent with your startup, shutdown, and malfunction plan, you must submit an immediate startup, shutdown, and malfunction report as described in paragraphs (c)(2)(i) and (ii) of this section.

(i) You must describe the actions taken during the event in a report delivered by facsimile, telephone, or other means to the Administrator within 2 working days after starting actions that are inconsistent with the plan.

(ii) You must submit a letter to the Administrator within 7 working days after the end of the event, unless you have made alternative arrangements with the Administrator as specified in § 63.10(d)(5)(ii). The letter must contain the information specified in § 63.10(d)(5)(ii).

§ 63.3930 What records must I keep?

You must collect and keep records of the data and information specified in this section. Failure to collect and keep these records is a deviation from the applicable standard.

(a) A copy of each notification and report that you submitted to comply with this subpart, and the documentation supporting each notification and report. If you are using the predominant activity alternative under § 63.3890(c), you must keep records of the data and calculations used to determine the predominant activity. If you are using the facility-specific emission limit alternative under § 63.3890(c), you must keep records of the data used to calculate the facility-specific emission limit for the initial compliance demonstration. You must also keep records of any data used in each annual predominant activity determination and in the calculation of the facility-specific emission limit for each 12-month compliance period included in the semi-annual compliance reports.

(b) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP and density for each coating, thinner and/or other additive, and cleaning material, and the volume fraction of coating solids for each coating. If you conducted testing to determine mass fraction of organic HAP, density, or volume fraction of coating solids, you must keep a copy of the complete test report. If you use information provided to you by the manufacturer or supplier of the material that was based on testing, you must keep the summary sheet of results provided to you by the manufacturer or supplier. You are not required to obtain the test report or other supporting documentation from the manufacturer or supplier.

(c) For each compliance period, the records specified in paragraphs (c)(1) through (4) of this section.

(1) A record of the coating operations on which you used each compliance option and the time periods (beginning and ending dates and times) for each option you used.

(2) For the compliant material option, a record of the calculation of the organic HAP content for each coating, using Equation 2 of § 63.3941.

(3) For the emission rate without add-on controls option, a record of the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1, 1A through 1C, and 2 of § 63.3951; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.3951(e)(4); the calculation of the total volume of coating solids used each month using Equation 2 of § 63.3951; and the calculation of each 12-month organic HAP emission rate using Equation 3 of § 63.3951.

(4) For the emission rate with add-on controls option, records of the calculations specified in paragraphs (c)(4)(i) through (v) of this section.

(i) The calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1 and 1A through 1C of § 63.3951 and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.3951(e)(4);

(ii) The calculation of the total volume of coating solids used each month using Equation 2 of § 63.3951;

(iii) The calculation of the mass of organic HAP emission reduction by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of § 63.3961 and

Equations 2, 3, and 3A through 3C of § 63.3961, as applicable;

(iv) The calculation of each month's organic HAP emission rate using Equation 4 of § 63.3961; and

(v) The calculation of each 12-month organic HAP emission rate using Equation 5 of § 63.3961.

(d) A record of the name and volume of each coating, thinner and/or other additive, and cleaning material used during each compliance period. If you are using the compliant material option for all coatings at the source, you may maintain purchase records for each material used rather than a record of the volume used.

(e) A record of the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each compliance period unless the material is tracked by weight.

(f) A record of the volume fraction of coating solids for each coating used during each compliance period.

(g) If you use either the emission rate without add-on controls or the emission rate with add-on controls compliance option, the density for each coating, thinner and/or other additive, and cleaning material used during each compliance period.

(h) If you use an allowance in Equation 1 of § 63.3951 for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage, and disposal facility (TSDF) according to § 63.3951(e)(4), you must keep records of the information specified in paragraphs (h)(1) through (3) of this section.

(1) The name and address of each TSDF to which you sent waste materials for which you use an allowance in Equation 1 of § 63.3951; a statement of which subparts under 40 CFR parts 262, 264, 265, and 266 apply to the facility; and the date of each shipment.

(2) Identification of the coating operations producing waste materials included in each shipment and the month or months in which you used the allowance for these materials in Equation 1 of § 63.3951.

(3) The methodology used in accordance with § 63.3951(e)(4) to determine the total amount of waste materials sent to or the amount collected, stored, and designated for transport to a TSDF each month; and the methodology to determine the mass of organic HAP contained in these waste materials. This must include the sources for all data used in the determination, methods used to generate the data, frequency of testing or monitoring, and supporting calculations and documentation, including the waste manifest for each shipment.

(i) [Reserved]

(j) You must keep records of the date, time, and duration of each deviation.

(k) If you use the emission rate with add-on controls option, you must keep the records specified in paragraphs (k)(1) through (8) of this section.

(1) For each deviation, a record of whether the deviation occurred during a period of startup, shutdown, or malfunction.

(2) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) The records required to show continuous compliance with each operating limit specified in Table 1 to this subpart that applies to you.

(4) For each capture system that is a PTE, the data and documentation you used to support a determination that the capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and has a capture efficiency of 100 percent, as specified in § 63.3965(a).

(5) For each capture system that is not a PTE, the data and documentation you used to determine capture efficiency according to the requirements specified in §§ 63.3964 and 63.3965(b) through (e), including the records specified in paragraphs (k)(5)(i) through (iii) of this section that apply to you.

(i) *Records for a liquid-to-uncaptured gas protocol using a temporary total enclosure or building enclosure.* Records of the mass of total volatile hydrocarbon (TVH) as measured by Method 204A or 204F of appendix M to 40 CFR part 51 for each material used in the coating operation, and the total TVH for all materials used during each capture efficiency test run, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run, as measured by Method 204D or 204E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(ii) *Records for a gas-to-gas protocol using a temporary total enclosure or a building enclosure.* Records of the mass of TVH emissions captured by the emission capture system as measured by Method 204B or 204C of appendix M to 40 CFR part 51 at the inlet to the add-on control device, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run as measured by Method 204D or 204E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(iii) *Records for an alternative protocol.* Records needed to document a capture efficiency determination using an alternative method or protocol as specified in § 63.3965(e), if applicable.

(6) The records specified in paragraphs (k)(6)(i) and (ii) of this section for each add-on control device organic HAP destruction or removal efficiency determination as specified in § 63.3966.

(i) Records of each add-on control device performance test conducted according to §§ 63.3964 and 63.3966.

(ii) Records of the coating operation conditions during the add-on control device performance test showing that the performance test was conducted under representative operating conditions.

(7) Records of the data and calculations you used to establish the emission capture and add-on control device operating limits as specified in § 63.3967 and to document compliance with the operating limits as specified in Table 1 to this subpart.

(8) A record of the work practice plan required by § 63.3893 and documentation that you are implementing the plan on a continuous basis.

§ 63.3931 In what form and for how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database.

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to § 63.10(b)(1). You may keep the records off-site for the remaining 3 years.

Compliance Requirements for the Compliant Material Option

§ 63.3940 By what date must I conduct the initial compliance demonstration?

You must complete the initial compliance demonstration for the initial compliance period according to the requirements in § 63.3941. The initial compliance period begins on the applicable compliance date specified in § 63.3883 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through that month plus the next 12 months. The initial compliance demonstration includes the calculations according to § 63.3941 and supporting documentation showing that during the initial compliance period, you used no coating with an organic HAP content that exceeded the applicable emission limit in § 63.3890, and that you used no thinners and/or other additives, or cleaning materials that contained organic HAP as determined according to § 63.3941(a).

§ 63.3941 How do I demonstrate initial compliance with the emission limitations?

You may use the compliant material option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. You must use either the emission rate without add-on controls option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. To demonstrate initial compliance using the compliant material option, the coating operation or group of coating operations must use no coating with an organic HAP content that exceeds the applicable emission limits in § 63.3890 and must use no thinner and/or other additive, or cleaning material that contains organic HAP as determined according to this section. Any coating operation for which you use the compliant material option is not required to meet the operating limits or work practice standards required in §§ 63.3892 and 63.3893, respectively. You must conduct a separate initial compliance demonstration for each general use, high performance, magnet wire, rubber-to-metal, and extreme performance fluoropolymer coating operation unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in § 63.3890(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in § 63.3890(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You must meet all the requirements of this section. Use the procedures in this section on each coating, thinner and/or other additive, and cleaning material in the condition it is in when it is received from its manufacturer or supplier and prior to any alteration. You do not need to redetermine the organic HAP content of coatings, thinners and/or other additives, and cleaning materials that are reclaimed on-site (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coating operation for which you use the compliant material option, provided these materials in their condition as received were demonstrated to comply with the compliant material option.

(a) *Determine the mass fraction of organic HAP for each material used.* You must determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during the compliance period by using one of the options in paragraphs (a)(1) through (5) of this section.

(1) *Method 311 (appendix A to 40 CFR part 63).* You may use Method 311 for determining the mass fraction of organic HAP. Use the procedures specified in paragraphs (a)(1)(i) and (ii) of this section when performing a Method 311 test.

(i) Count each organic HAP that is measured to be present at 0.1 percent by mass or more for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is measured to be 0.5 percent of the material by mass, you do not have to count it. Express the mass fraction of each organic HAP you count as a value truncated to four places after the decimal point (*e.g.*, 0.3791).

(ii) Calculate the total mass fraction of organic HAP in the test material by adding up the individual organic HAP mass fractions and truncating the result to three places after the decimal point (*e.g.*, 0.763).

(2) *Method 24 (appendix A to 40 CFR part 60).* For coatings, you may use Method 24 to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for mass fraction of organic HAP. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may use the alternative method contained in appendix A to subpart PPPP of this part, rather than Method 24. You may use the volatile fraction that is emitted, as measured by the alternative method in appendix A to subpart PPPP of this part, as a substitute for the mass fraction of organic HAP.

(3) *Alternative method.* You may use an alternative test method for determining the mass fraction of organic HAP once the Administrator has approved it. You must follow the procedure in § 63.7(f) to submit an alternative test method for approval.

(4) *Information from the supplier or manufacturer of the material.* You may rely on information other than that generated by the test methods specified in paragraphs (a)(1) through (3) of this section, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is 0.5 percent of the material by mass, you do not have to count it. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may rely on manufacturer's data that expressly states the organic HAP or volatile matter mass fraction emitted. If there is a disagreement between such information and results of a test conducted according to paragraphs (a)(1) through (3) of this section, then the test method results will take precedence unless, after consultation, you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(5) *Solvent blends.* Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP which must be counted toward the total organic HAP mass fraction of the materials. When test data and manufacturer's data for solvent blends are not available, you may use the default values for the mass fraction of organic HAP in these solvent blends listed in Table 3 or 4 to this subpart. If you use the tables, you must use the values in Table 3 for all solvent blends that match Table 3 entries according to the instructions for Table 3, and you may use Table 4 only if the solvent blends in the materials you use do not match any of the solvent blends in Table 3 and you know only whether the blend is aliphatic or aromatic. However, if the

results of a Method 311 (appendix A to 40 CFR part 63) test indicate higher values than those listed on Table 3 or 4 to this subpart, the Method 311 results will take precedence unless, after consultation, you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(b) *Determine the volume fraction of coating solids for each coating.* You must determine the volume fraction of coating solids (liters (gal) of coating solids per liter (gal) of coating) for each coating used during the compliance period by a test, by information provided by the supplier or the manufacturer of the material, or by calculation, as specified in paragraphs (b)(1) through (4) of this section. If test results obtained according to paragraph (b)(1) of this section do not agree with the information obtained under paragraph (b)(3) or (4) of this section, the test results will take precedence unless, after consultation, you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(1) *ASTM Method D2697–86 (Reapproved 1998) or ASTM Method D6093–97 (Reapproved 2003).* You may use ASTM Method D2697–86 (Reapproved 1998), "Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings" (incorporated by reference, see § 63.14), or ASTM Method D6093–97 (Reapproved 2003), "Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer" (incorporated by reference, see § 63.14), to determine the volume fraction of coating solids for each coating. Divide the nonvolatile volume percent obtained with the methods by 100 to calculate volume fraction of coating solids.

(2) *Alternative method.* You may use an alternative test method for determining the solids content of each coating once the Administrator has approved it. You must follow the procedure in § 63.7(f) to submit an alternative test method for approval.

(3) *Information from the supplier or manufacturer of the material.* You may obtain the volume fraction of coating solids for each coating from the supplier or manufacturer.

(4) *Calculation of volume fraction of coating solids.* You may determine the volume fraction of coating solids using Equation 1 of this section:

$$V_s = 1 - \frac{m_{volatiles}}{D_{avg}} \qquad \text{(Eq. 1)}$$

Where:

V_s = Volume fraction of coating solids, liters (gal) coating solids per liter (gal) coating.

$m_{volatiles}$ = Total volatile matter content of the coating, including HAP, volatile organic compounds (VOC), water, and exempt compounds, determined according to Method 24 in appendix A of 40 CFR part 60, grams volatile matter per liter coating.

D_{avg} = Average density of volatile matter in the coating, grams volatile matter per liter volatile matter, determined from test results using ASTM Method D1475–98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (incorporated by reference, see § 63.14), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475–98 test results and other information sources, the test results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(c) *Determine the density of each coating.* Determine the density of each coating used during the compliance period from test results using ASTM Method D1475–98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (incorporated by reference, see § 63.14), information from the supplier or manufacturer of the material, or specific gravity data for pure chemicals. If there is disagreement between ASTM Method D1475–98 test results and the supplier's or manufacturer's information, the test results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(d) *Determine the organic HAP content of each coating.* Calculate the organic HAP content, kg (lb) of organic HAP emitted per liter (gal) coating solids used, of each coating used during the compliance period using Equation 2 of this section:

$$H_c = \frac{(D_c)(W_c)}{V_s} \qquad \text{(Eq. 2)}$$

Where:

H_c = Organic HAP content of the coating, kg organic HAP emitted per liter (gal) coating solids used.

D_c = Density of coating, kg coating per liter (gal) coating, determined according to paragraph (c) of this section.

W_c = Mass fraction of organic HAP in the coating, kg organic HAP per kg coating, determined according to paragraph (a) of this section.

V_s = Volume fraction of coating solids, liter (gal) coating solids per liter (gal) coating, determined according to paragraph (b) of this section.

(e) *Compliance demonstration.* The calculated organic HAP content for each coating used during the initial compliance period must be less than or equal to the applicable emission limit in § 63.3890; and each thinner and/or other additive, and cleaning material used during the initial compliance period must contain no organic HAP, determined according to paragraph (a) of this section. You must keep all records required by §§ 63.3930 and 63.3931. As part of the notification of compliance status required in § 63.3910, you must identify the coating operation(s) for which you used the compliant material option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because you used no coatings for which the organic HAP content exceeded the applicable emission limit in § 63.3890, and you used no thinners and/or other additives, or cleaning materials that contained organic HAP, determined according to the procedures in paragraph (a) of this section.

§ 63.3942 How do I demonstrate continuous compliance with the emission limitations?

(a) For each compliance period to demonstrate continuous compliance, you must use no coating for which the organic HAP content (determined using Equation 2 of § 63.3941) exceeds the applicable emission limit in § 63.3890, and use no thinner and/or other additive, or cleaning material that contains organic HAP, determined according to § 63.3941(a). A compliance period consists of 12 months. Each month, after the end of the initial compliance period described in § 63.3940, is the end of a compliance period consisting of that month and the preceding 11 months. If you are complying with a facility-specific emission limit under § 63.3890(c), you must also perform the calculation using Equation 1 in § 63.3890(c)(2) on a monthly basis using the data from the previous 12 months of operation.

(b) If you choose to comply with the emission limitations by using the compliant material option, the use of any coating, thinner and/or other

additive, or cleaning material that does not meet the criteria specified in paragraph (a) of this section is a deviation from the emission limitations that must be reported as specified in §§ 63.3910(c)(6) and 63.3920(a)(5).

(c) As part of each semiannual compliance report required by § 63.3920, you must identify the coating operation(s) for which you used the compliant material option. If there were no deviations from the applicable emission limit in § 63.3890, submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because you used no coatings for which the organic HAP content exceeded the applicable emission limit in § 63.3890, and you used no thinner and/or other additive, or cleaning material that contained organic HAP, determined according to § 63.3941(a).

(d) You must maintain records as specified in §§ 63.3930 and 63.3931.

Compliance Requirements for the Emission Rate Without Add-On Controls Option

§ 63.3950 By what date must I conduct the initial compliance demonstration?

You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3951. The initial compliance period begins on the applicable compliance date specified in § 63.3883 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and volume of coating solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the calculations according to § 63.3951 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in § 63.3890.

§ 63.3951 How do I demonstrate initial compliance with the emission limitations?

You may use the emission rate without add-on controls option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. You must use either the compliant material option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. To demonstrate initial compliance using the emission rate without add-on controls option, the coating operation or group of coating operations must meet the applicable emission limit in § 63.3890, but is not required to meet the operating limits or work practice standards in §§ 63.3892 and 63.3893, respectively. You must conduct a separate initial compliance demonstration for each general use, magnet wire, rubber-to-metal, and extreme performance fluoropolymer coating operation unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in § 63.3890(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in § 63.3890(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You must meet all the requirements of this section. When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners and/or other additives, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate with add-on controls option. You do not need to redetermine the mass of organic HAP in coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coating operation for which you use the emission rate without add-on controls option. If you use coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site, the amount of each used in a month may be reduced by the amount of each that is reclaimed. That is, the amount used may be calculated as the amount consumed to account for materials that are reclaimed.

(a) *Determine the mass fraction of organic HAP for each material.* Determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each month according to the requirements in § 63.3941(a).

(b) *Determine the volume fraction of coating solids.* Determine the volume fraction of coating solids (liter (gal) of coating solids per liter (gal) of coating) for each coating used during each month according to the requirements in § 63.3941(b).

(c) *Determine the density of each material.* Determine the density of each liquid coating, thinner and/or other additive, and cleaning material used during each month from test results using ASTM Method D1475–98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (incorporated by reference, see § 63.14), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If you are including powder coatings in the compliance determination, determine the density of powder coatings, using ASTM Method D5965–02, "Standard Test Methods for Specific Gravity of Coating Powders" (incorporated by reference, see § 63.14), or information from the supplier. If there is disagreement between ASTM Method D1475–98 or ASTM Method D5965–02 test results and other such information sources, the test results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine material density. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, 1C, and 2 of this section.

(d) *Determine the volume of each material used.* Determine the volume (liters) of each coating, thinner and/or other additive, and cleaning material used during each month by measurement or usage records. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine the volume of each material used. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, and 1C of this section.

(e) *Calculate the mass of organic HAP emissions.* The mass of organic HAP emissions is the combined mass of organic HAP contained in all coatings, thinners and/or other additives, and cleaning materials used during each month minus the organic HAP in certain waste materials. Calculate the mass of organic HAP emissions using Equation 1 of this section.

$$H_e = A + B + C - R_w \qquad \text{(Eq. 1)}$$

Where:

H_e = Total mass of organic HAP emissions during the month, kg.

A = Total mass of organic HAP in the coatings used during the month, kg, as calculated in Equation 1A of this section.
B = Total mass of organic HAP in the thinners and/or other additives used during the month, kg, as calculated in Equation 1B of this section.
C = Total mass of organic HAP in the cleaning materials used during the month, kg, as calculated in Equation 1C of this section.
R_w = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the month, kg, determined according to paragraph (e)(4) of this section. (You may assign a value of zero to R_w if you do not wish to use this allowance.)

(1) Calculate the kg organic HAP in the coatings used during the month using Equation 1A of this section:

$$A = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i}) \qquad \text{(Eq. 1A)}$$

Where:
A = Total mass of organic HAP in the coatings used during the month, kg.
$Vol_{c,i}$ = Total volume of coating, i, used during the month, liters.
$D_{c,i}$ = Density of coating, i, kg coating per liter coating.
$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating. For reactive adhesives as defined in § 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.
m = Number of different coatings used during the month.

(2) Calculate the kg of organic HAP in the thinners and/or other additives used during the month using Equation 1B of this section:

$$B = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \qquad \text{(Eq. 1B)}$$

Where:
B = Total mass of organic HAP in the thinners and/or other additives used during the month, kg.
$Vol_{t,j}$ = Total volume of thinner and/or other additive, j, used during the month, liters.
$D_{t,j}$ = Density of thinner and/or other additive, j, kg per liter.
$W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg organic HAP per kg thinner and/or other additive. For reactive adhesives as defined in § 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.
n = Number of different thinners and/or other additives used during the month.

(3) Calculate the kg organic HAP in the cleaning materials used during the month using Equation 1C of this section:

$$C = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k}) \qquad \text{(Eq. 1C)}$$

Where:
C = Total mass of organic HAP in the cleaning materials used during the month, kg.
$Vol_{s,k}$ = Total volume of cleaning material, k, used during the month, liters.
$D_{s,k}$ = Density of cleaning material, k, kg per liter.
$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg organic HAP per kg material.
p = Number of different cleaning materials used during the month.

(4) If you choose to account for the mass of organic HAP contained in waste materials sent or designated for shipment to a hazardous waste TSDF in Equation 1 of this section, then you must determine the mass according to paragraphs (e)(4)(i) through (iv) of this section.

(i) You may only include waste materials in the determination that are generated by coating operations in the affected source for which you use Equation 1 of this section and that will be treated or disposed of by a facility that is regulated as a TSDF under 40 CFR part 262, 264, 265, or 266. The TSDF may be either off-site or on-site. You may not include organic HAP contained in wastewater.

(ii) You must determine either the amount of the waste materials sent to a TSDF during the month or the amount collected and stored during the month and designated for future transport to a TSDF. Do not include in your determination any waste materials sent to a TSDF during a month if you have already included them in the amount collected and stored during that month or a previous month.

(iii) Determine the total mass of organic HAP contained in the waste materials specified in paragraph (e)(4)(ii) of this section.

(iv) You must document the methodology you use to determine the amount of waste materials and the total mass of organic HAP they contain, as required in § 63.3930(h). If waste manifests include this information, they may be used as part of the documentation of the amount of waste materials and mass of organic HAP contained in them.

(f) *Calculate the total volume of coating solids used.* Determine the total volume of coating solids used, liters, which is the combined volume of coating solids for all the coatings used during each month, using Equation 2 of this section:

$$V_{st} = \sum_{i=1}^{m} (Vol_{c,i})(V_{s,i}) \qquad \text{(Eq. 2)}$$

Where:
V_{st} = Total volume of coating solids used during the month, liters.
$Vol_{c,i}$ = Total volume of coating, i, used during the month, liters.
$V_{s,i}$ = Volume fraction of coating solids for coating, i, liter solids per liter coating, determined according to § 63.3941(b).
m = Number of coatings used during the month.

(g) *Calculate the organic HAP emission rate.* Calculate the organic HAP emission rate for the compliance period, kg (lb) organic HAP emitted per liter (gal) coating solids used, using Equation 3 of this section:

$$H_{yr} = \frac{\sum_{y=1}^{n} H_e}{\sum_{y=1}^{n} V_{st}} \qquad \text{(Eq. 3)}$$

Where:
H_{yr} = Average organic HAP emission rate for the compliance period, kg organic HAP emitted per liter coating solids used.
H_e = Total mass of organic HAP emissions from all materials used during month, y, kg, as calculated by Equation 1 of this section.
V_{st} = Total volume of coating solids used during month, y, liters, as calculated by Equation 2 of this section.
y = Identifier for months.
n = Number of full or partial months in the compliance period (for the initial compliance period, n equals 12 if the compliance date falls on the first day of a month; otherwise n equals 13; for all following compliance periods, n equals 12).

(h) *Compliance demonstration.* The organic HAP emission rate for the initial compliance period calculated using Equation 3 of this section must be less than or equal to the applicable emission limit for each subcategory in § 63.3890 or the predominant activity or facility-specific emission limit allowed in

§ 63.3890(c). You must keep all records as required by §§ 63.3930 and 63.3931. As part of the notification of compliance status required by § 63.3910, you must identify the coating operation(s) for which you used the emission rate without add-on controls option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in § 63.3890, determined according to the procedures in this section.

§ 63.3952 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance, the organic HAP emission rate for each compliance period, determined according to § 63.3951(a) through (g), must be less than or equal to the applicable emission limit in § 63.3890. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in § 63.3950 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in § 63.3951(a) through (g) on a monthly basis using data from the previous 12 months of operation. If you are complying with a facility-specific emission limit under § 63.3890(c), you must also perform the calculation using Equation 1 in § 63.3890(c)(2) on a monthly basis using the data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in § 63.3890, this is a deviation from the emission limitation for that compliance period and must be reported as specified in §§ 63.3910(c)(6) and 63.3920(a)(6).

(c) As part of each semiannual compliance report required by § 63.3920, you must identify the coating operation(s) for which you used the emission rate without add-on controls option. If there were no deviations from the emission limitations, you must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in § 63.3890, determined according to § 63.3951(a) through (g).

(d) You must maintain records as specified in §§ 63.3930 and 63.3931.

Compliance Requirements for the Emission Rate With Add-On Controls Option

§ 63.3960 By what date must I conduct performance tests and other initial compliance demonstrations?

(a) *New and reconstructed affected sources.* For a new or reconstructed affected source, you must meet the requirements of paragraphs (a)(1) through (4) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in § 63.3883. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.3961(j), you must conduct a performance test of each capture system and add-on control device according to §§ 63.3964, 63.3965, and 63.3966 and establish the operating limits required by § 63.3892 no later than 180 days after the applicable compliance date specified in § 63.3883. For a solvent recovery system for which you conduct liquid-liquid material balances according to § 63.3961(j), you must initiate the first material balance no later than the applicable compliance date specified in § 63.3883. For magnet wire coating operations you may, with approval, conduct a performance test of one representative magnet wire coating machine for each group of identical or very similar magnet wire coating machines.

(2) You must develop and begin implementing the work practice plan required by § 63.3893 no later than the compliance date specified in § 63.3883.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3961. The initial compliance period begins on the applicable compliance date specified in § 63.3883 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and volume of coatings solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§ 63.3964, 63.3965, and 63.3966; results of liquid-liquid material balances conducted according to § 63.3961(j); calculations according to § 63.3961 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in § 63.3890; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.3968; and documentation of whether you developed and implemented the work practice plan required by § 63.3893.

(4) You do not need to comply with the operating limits for the emission capture system and add-on control device required by § 63.3892 until after you have completed the performance tests specified in paragraph (a)(1) of this section. Instead, you must maintain a log detailing the operation and maintenance of the emission capture system, add-on control device, and continuous parameter monitors during the period between the compliance date and the performance test. You must begin complying with the operating limits for your affected source on the date you complete the performance tests specified in paragraph (a)(1) of this section. For magnet wire coating operations, you must begin complying with the operating limits for all identical or very similar magnet wire coating machines on the date you complete the performance test of a representative magnet wire coating machine. The requirements in this paragraph (a)(4) do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements in § 63.3961(j).

(b) *Existing affected sources.* For an existing affected source, you must meet the requirements of paragraphs (b)(1) through (3) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in § 63.3883. Except for magnet wire coating operations and solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.3961(j), you must conduct a performance test of each capture system and add-on control device according to the procedures in §§ 63.3964, 63.3965, and 63.3966 and establish the operating limits required by § 63.3892 no later than the compliance date specified in § 63.3883. For magnet wire coating operations, you may, with approval, conduct a performance test of a single magnet wire coating machine that represents identical or very similar magnet wire coating machines. For a solvent recovery system for which you

conduct liquid-liquid material balances according to § 63.3961(j), you must initiate the first material balance no later than the compliance date specified in § 63.3883.

(2) You must develop and begin implementing the work practice plan required by § 63.3893 no later than the compliance date specified in § 63.3883.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3961. The initial compliance period begins on the applicable compliance date specified in § 63.3883 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and volume of coatings solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§ 63.3964, 63.3965, and 63.3966; results of liquid-liquid material balances conducted according to § 63.3961(j); calculations according to § 63.3961 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in § 63.3890; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.3968; and documentation of whether you developed and implemented the work practice plan required by § 63.3893.

(c) You are not required to conduct an initial performance test to determine capture efficiency or destruction efficiency of a capture system or control device if you receive approval to use the results of a performance test that has been previously conducted on that capture system or control device. Any such previous tests must meet the conditions described in paragraphs (c)(1) through (3) of this section.

(1) The previous test must have been conducted using the methods and conditions specified in this subpart.

(2) Either no process or equipment changes have been made since the previous test was performed or the owner or operator must be able to demonstrate that the results of the performance test, reliably demonstrate compliance despite process or equipment changes.

(3) Either the required operating parameters were established in the previous test or sufficient data were collected in the previous test to establish the required operating parameters.

§ 63.3961 How do I demonstrate initial compliance?

(a) You may use the emission rate with add-on controls option for any coating operation, for any group of coating operations in the affected source, or for all of the coating operations in the affected source. You may include both controlled and uncontrolled coating operations in a group for which you use this option. You must use either the compliant material option or the emission rate without add-on controls option for any coating operation in the affected source for which you do not use the emission rate with add-on controls option. To demonstrate initial compliance, the coating operation(s) for which you use the emission rate with add-on controls option must meet the applicable emission limitations in §§ 63.3890, 63.3892, and 63.3893. You must conduct a separate initial compliance demonstration for each general use, magnet wire, rubber-to-metal, and extreme performance fluoropolymer coating operation, unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in § 63.3890(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in § 63.4490(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You must meet all the requirements of this section. When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners and/or other additives, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate without add-on controls option. You do not need to redetermine the mass of organic HAP in coatings, thinners and/or other additives, or cleaning materials that have been reclaimed onsite (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coatings operation(s) for which you use the emission rate with add-on controls option. If you use coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site, the amount of each used in a month may be reduced by the amount of each that is reclaimed. That is, the amount used may be calculated as the amount consumed to account for materials that are reclaimed.

(b) *Compliance with operating limits.* Except as provided in § 63.3960(a)(4), and except for solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements of paragraph (j) of this section, you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by § 63.3892, using the procedures specified in §§ 63.3967 and 63.3968.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plan required by § 63.3893 during the initial compliance period, as specified in § 63.3930.

(d) *Compliance with emission limits.* You must follow the procedures in paragraphs (e) through (n) of this section to demonstrate compliance with the applicable emission limit in § 63.3890 for each affected source in each subcategory.

(e) *Determine the mass fraction of organic HAP, density, volume used, and volume fraction of coating solids.* Follow the procedures specified in § 63.3951(a) through (d) to determine the mass fraction of organic HAP, density, and volume of each coating, thinner and/or other additive, and cleaning material used during each month; and the volume fraction of coating solids for each coating used during each month.

(f) *Calculate the total mass of organic HAP emissions before add-on controls.* Using Equation 1 of § 63.3951, calculate the total mass of organic HAP emissions before add-on controls from all coatings, thinners and/or other additives, and cleaning materials used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option.

(g) *Calculate the organic HAP emission reduction for each controlled coating operation.* Determine the mass of organic HAP emissions reduced for each controlled coating operation during each month. The emission reduction determination quantifies the total organic HAP emissions that pass through the emission capture system and are destroyed or removed by the add-on control device. Use the procedures in paragraph (h) of this

section to calculate the mass of organic HAP emission reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. For each controlled coating operation using a solvent recovery system for which you conduct a liquid-liquid material balance, use the procedures in paragraph (j) of this section to calculate the organic HAP emission reduction.

(h) *Calculate the organic HAP emission reduction for each controlled coating operation not using liquid-liquid material balance.* Use Equation 1 of this section to calculate the organic HAP emission reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. The calculation applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings, thinners and/or other additives, and cleaning materials that are used in the coating operation served by the emission capture system and add-on control device during each month. You must assume zero efficiency for the emission capture system and add-on control device for any period of time a deviation specified in § 63.3963(c) or (d) occurs in the controlled coating operation, including a deviation during a period of startup, shutdown, or malfunction, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device and the use of these data is approved by the Administrator. Equation 1 of this section treats the materials used during such a deviation as if they were used on an uncontrolled coating operation for the time period of the deviation.

$$H_C = (A_C + B_C + C_C - R_W - H_{UNC})\left(\frac{CE}{100} \times \frac{DRE}{100}\right) \quad \text{(Eq. 1)}$$

Where:

H_C = Mass of organic HAP emission reduction for the controlled coating operation during the month, kg.

A_C = Total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg, as calculated in Equation 1A of this section.

B_C = Total mass of organic HAP in the thinners and/or other additives used in the controlled coating operation during the month, kg, as calculated in Equation 1B of this section.

C_C = Total mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg, as calculated in Equation 1C of this section.

R_W = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the compliance period, kg, determined according to § 63.3951(e)(4). (You may assign a value of zero to R_W if you do not wish to use this allowance.)

H_{UNC} = Total mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used during all deviations specified in § 63.3963(c) and (d) that occurred during the month in the controlled coating operation, kg, as calculated in Equation 1D of this section.

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent. Use the test methods and procedures specified in §§ 63.3964 and 63.3965 to measure and record capture efficiency.

DRE = Organic HAP destruction or removal efficiency of the add-on control device, percent. Use the test methods and procedures in §§ 63.3964 and 63.3966 to measure and record the organic HAP destruction or removal efficiency.

(1) Calculate the mass of organic HAP in the coatings used in the controlled coating operation, kg (lb), using Equation 1A of this section:

$$A_C = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i}) \quad \text{(Eq. 1A)}$$

Where:

A_C = Total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the month, liters.

$D_{c,i}$ = Density of coating, i, kg per liter.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg per kg. For reactive adhesives as defined in § 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

m = Number of different coatings used.

(2) Calculate the mass of organic HAP in the thinners and/or other additives used in the controlled coating operation, kg (lb), using Equation 1B of this section:

$$B_C = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \quad \text{(Eq. 1B)}$$

Where:

B_C = Total mass of organic HAP in the thinners and/or other additives used in the controlled coating operation during the month, kg.

$Vol_{t,j}$ = Total volume of thinner and/or other additive, j, used during the month, liters.

$D_{t,j}$ = Density of thinner and/or other additive, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg per kg. For reactive adhesives as defined in § 63.3981, use the mass fraction of organic HAP that is

emitted as determined using the method in appendix A to subpart PPPP of this part.

n = Number of different thinners and/or other additives used.

(3) Calculate the mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg (lb), using Equation 1C of this section:

$$C_C = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k}) \qquad \text{(Eq. 1C)}$$

Where:

C_C = Total mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg.

$Vol_{s,k}$ = Total volume of cleaning material, k, used during the month, liters.

$D_{s,k}$ = Density of cleaning material, k, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg per kg.

p = Number of different cleaning materials used.

(4) Calculate the mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used in the controlled coating operation during deviations specified in § 63.3963(c) and (d), using Equation 1D of this section:

$$H_{UNC} = \sum_{h=1}^{q} (Vol_h)(D_h)(W_h) \qquad \text{(Eq. 1D)}$$

Where:

H_{UNC} = Total mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used during all deviations specified in § 63.3963(c) and (d) that occurred during the month in the controlled coating operation, kg.

Vol_h = Total volume of coating, thinner and/or other additive, or cleaning material, h, used in the controlled coating operation during deviations, liters.

D_h = Density of coating, thinner and/or other additives, or cleaning material, h, kg per liter.

W_h = Mass fraction of organic HAP in coating, thinner and/or other additives, or cleaning material, h, kg organic HAP per kg coating. For reactive adhesives as defined in § 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

q = Number of different coatings, thinners and/or other additives, and cleaning materials used.

(i) [Reserved]

(j) *Calculate the organic HAP emission reduction for each controlled coating operation using liquid-liquid material balances.* For each controlled coating operation using a solvent recovery system for which you conduct liquid-liquid material balances, calculate the organic HAP emission reduction by applying the volatile organic matter collection and recovery efficiency to the mass of organic HAP contained in the coatings, thinners and/or other additives, and cleaning materials that are used in the coating operation controlled by the solvent recovery system during each month. Perform a liquid-liquid material balance for each month as specified in paragraphs (j)(1) through (6) of this section. Calculate the mass of organic HAP emission reduction by the solvent recovery system as specified in paragraph (j)(7) of this section.

(1) For each solvent recovery system, install, calibrate, maintain, and operate according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile organic matter recovered by the solvent recovery system each month. The device must be initially certified by the manufacturer to be accurate to within ± 2.0 percent of the mass of volatile organic matter recovered.

(2) For each solvent recovery system, determine the mass of volatile organic matter recovered for the month, based on measurement with the device required in paragraph (j)(1) of this section.

(3) Determine the mass fraction of volatile organic matter for each coating, thinner and/or other additive, and cleaning material used in the coating operation controlled by the solvent recovery system during the month, kg volatile organic matter per kg coating. You may determine the volatile organic matter mass fraction using Method 24 of 40 CFR part 60, appendix A, or an EPA approved alternative method, or you may use information provided by the manufacturer or supplier of the coating. In the event of any inconsistency between information provided by the manufacturer or supplier and the results of Method 24 of 40 CFR part 60, appendix A, or an approved alternative method, the test method results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(4) Determine the density of each coating, thinner and/or other additive, and cleaning material used in the coating operation controlled by the solvent recovery system during the month, kg per liter, according to § 63.3951(c).

(5) Measure the volume of each coating, thinner and/or other additive, and cleaning material used in the coating operation controlled by the solvent recovery system during the month, liters.

(6) Each month, calculate the solvent recovery system's volatile organic matter collection and recovery efficiency, using Equation 2 of this section:

$$R_V = 100 \frac{M_{VR}}{\sum_{i=1}^{m} Vol_i D_i WV_{c,i} + \sum_{j=1}^{n} Vol_j D_j WV_{t,j} + \sum_{k=1}^{p} Vol_k D_k WV_{s,k}} \quad \text{(Eq. 2)}$$

Where:

R_V = Volatile organic matter collection and recovery efficiency of the solvent recovery system during the month, percent.

M_{VR} = Mass of volatile organic matter recovered by the solvent recovery system during the month, kg.

Vol_i = Volume of coating, i, used in the coating operation controlled by the solvent recovery system during the month, liters.

D_i = Density of coating, i, kg per liter.

$WV_{c,i}$ = Mass fraction of volatile organic matter for coating, i, kg volatile organic matter per kg coating. For reactive adhesives as defined in § 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

Vol_j = Volume of thinner and/or other additive, j, used in the coating operation controlled by the solvent recovery system during the month, liters.

D_j = Density of thinner and/or other additive, j, kg per liter.

$WV_{t,j}$ = Mass fraction of volatile organic matter for thinner and/or other additive, j, kg volatile organic matter per kg thinner and/or other additive. For reactive adhesives as defined in § 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

Vol_k = Volume of cleaning material, k, used in the coating operation controlled by the solvent recovery system during the month, liters.

D_k = Density of cleaning material, k, kg per liter.

$WV_{s,k}$ = Mass fraction of volatile organic matter for cleaning material, k, kg volatile organic matter per kg cleaning material.

m = Number of different coatings used in the coating operation controlled by the solvent recovery system during the month.

n = Number of different thinners and/or other additives used in the coating operation controlled by the solvent recovery system during the month.

p = Number of different cleaning materials used in the coating operation controlled by the solvent recovery system during the month.

(7) Calculate the mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system during the month, using Equation 3 of this section and according to paragraphs (j)(7)(i) through (iii) of this section:

$$H_{CSR} = (A_{CSR} + B_{CSR} + C_{CSR})\left(\frac{R_V}{100}\right) \quad \text{(Eq. 3)}$$

Where:

H_{CSR} = Mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system using a liquid-liquid material balance during the month, kg.

A_{CSR} = Total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3A of this section.

B_{CSR} = Total mass of organic HAP in the thinners and/or other additives used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3B of this section.

C_{CSR} = Total mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3C of this section.

R_V = Volatile organic matter collection and recovery efficiency of the solvent recovery system, percent, from Equation 2 of this section.

(i) Calculate the mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, using Equation 3A of this section.

$$A_{CSR} = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i}) \quad \text{(Eq. 3A)}$$

Where:

A_{CSR} = Total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the month in the coating operation controlled by the solvent recovery system, liters.

$D_{c,i}$ = Density of coating, i, kg per liter.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating. For reactive adhesives as defined in § 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

m = Number of different coatings used.

(ii) Calculate the mass of organic HAP in the thinners and/or other additives used in the coating operation controlled by the solvent recovery system, kg, using Equation 3B of this section:

$$B_{CSR} = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \quad \text{(Eq. 3B)}$$

Where:

B_{CSR} = Total mass of organic HAP in the thinners and/or other additives used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{t,j}$ = Total volume of thinner and/or other additive, j, used during the month in the coating operation controlled by the solvent recovery system, liters.

$D_{t,j}$ = Density of thinner and/or other additive, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg lb organic HAP per kg thinner and/or other additive. For reactive adhesives as defined in § 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

n = Number of different thinners and/or other additives used.

(iii) Calculate the mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system during the month, kg, using Equation 3C of this section:

$$C_{CSR} = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k}) \qquad \text{(Eq. 3C)}$$

Where:

C_{CSR} = Total mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{s,k}$ = Total volume of cleaning material, k, used during the month in the coating operation controlled by the solvent recovery system, liters.

$D_{s,k}$ = Density of cleaning material, k, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg organic HAP per kg cleaning material.

p = Number of different cleaning materials used.

(k) *Calculate the total volume of coating solids used.* Determine the total volume of coating solids used, liters, which is the combined volume of coating solids for all the coatings used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option, using Equation 2 of § 63.3951.

(l) *Calculate the mass of organic HAP emissions for each month.* Determine the mass of organic HAP emissions, kg, during each month, using Equation 4 of this section:

$$H_{HAP} = H_e - \sum_{i=1}^{q} (H_{c,i}) - \sum_{j=1}^{r} (H_{CSR,j}) \qquad \text{(Eq. 4)}$$

where:

H_{HAP} = Total mass of organic HAP emissions for the month, kg.

H_e = Total mass of organic HAP emissions before add-on controls from all the coatings, thinners and/or other additives, and cleaning materials used during the month, kg, determined according to paragraph (f) of this section.

$H_{C,i}$ = Total mass of organic HAP emission reduction for controlled coating operation, i, not using a liquid-liquid material balance, during the month, kg, from Equation 1 of this section.

$H_{CSR,j}$ = Total mass of organic HAP emission reduction for coating operation, j, controlled by a solvent recovery system using a liquid-liquid material balance, during the month, kg, from Equation 3 of this section.

q = Number of controlled coating operations not controlled by a solvent recovery system using a liquid-liquid material balance.

r = Number of coating operations controlled by a solvent recovery system using a liquid-liquid material balance.

(m) *Calculate the organic HAP emission rate for the compliance period.* Determine the organic HAP emission rate for the compliance period, kg (lb) of organic HAP emitted per liter (gal) coating solids used, using Equation 5 of this section:

$$H_{annual} = \frac{\sum_{y=1}^{n} H_{HAP,y}}{\sum_{y=1}^{n} V_{st,y}} \qquad \text{(Eq. 5)}$$

Where:

H_{annual} = Organic HAP emission rate for the compliance period, kg organic HAP emitted per liter coating solids used.

$H_{HAP,y}$ = Organic HAP emissions for month, y, kg, determined according to Equation 4 of this section.

$V_{st,y}$ = Total volume of coating solids used during month, y, liters, from Equation 2 of § 63.3951.

y = Identifier for months.

n = Number of full or partial months in the compliance period (for the initial compliance period, n equals 12 if the compliance date falls on the first day of a month; otherwise n equals 13; for all following compliance periods, n equals 12).

(n) *Compliance demonstration.* The organic HAP emission rate for the initial compliance period, calculated using Equation 5 of this section, must be less than or equal to the applicable emission limit for each subcategory in § 63.3890 or the predominant activity or facility-specific emission limit allowed in § 63.3890(c). You must keep all records as required by §§ 63.3930 and 63.3931. As part of the notification of compliance status required by § 63.3910, you must identify the coating operation(s) for which you used the emission rate with add-on controls option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in § 63.3890, and you achieved the operating limits required by § 63.3892 and the work practice standards required by § 63.3893.

§ 63.3962 [Reserved.]

§ 63.3963 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance with the applicable emission limit in § 63.3890, the organic HAP emission rate for each compliance period, determined according to the

procedures in § 63.3961, must be equal to or less than the applicable emission limit in § 63.3890. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in § 63.3960 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in § 63.3961 on a monthly basis using data from the previous 12 months of operation. If you are complying with a facility-specific emission limit under § 63.3890(c), you must also perform the calculation using Equation 1 in § 63.3890(c)(2) on a monthly basis using the data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in § 63.3890, this is a deviation from the emission limitation for that compliance period that must be reported as specified in §§ 63.3910(c)(6) and 63.3920(a)(7).

(c) You must demonstrate continuous compliance with each operating limit required by § 63.3892 that applies to you, as specified in Table 1 to this subpart, when the coating line is in operation.

(1) If an operating parameter is out of the allowed range specified in Table 1 to this subpart, this is a deviation from the operating limit that must be reported as specified in §§ 63.3910(c)(6) and 63.3920(a)(7).

(2) If an operating parameter deviates from the operating limit specified in Table 1 to this subpart, then you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device and the use of these data is approved by the Administrator.

(d) You must meet the requirements for bypass lines in § 63.3968(b) for controlled coating operations for which you do not conduct liquid-liquid material balances. If any bypass line is opened and emissions are diverted to the atmosphere when the coating operation is running, this is a deviation that must be reported as specified in §§ 63.3910(c)(6) and 63.3920(a)(7). For the purposes of completing the compliance calculations specified in §§ 63.3961(h), you must treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation as indicated in Equation 1 of § 63.3961.

(e) You must demonstrate continuous compliance with the work practice standards in § 63.3893. If you did not develop a work practice plan, or you did not implement the plan, or you did not keep the records required by § 63.3930(k)(8), this is a deviation from the work practice standards that must be reported as specified in §§ 63.3910(c)(6) and 63.3920(a)(7).

(f) As part of each semiannual compliance report required in § 63.3920, you must identify the coating operation(s) for which you used the emission rate with add-on controls option. If there were no deviations from the emission limitations, submit a statement that you were in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in § 63.3890, and you achieved the operating limits required by § 63.3892 and the work practice standards required by § 63.3893 during each compliance period.

(g) During periods of startup, shutdown, or malfunction of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency, you must operate in accordance with the startup, shutdown, and malfunction plan required by § 63.3900(c).

(h) [Reserved]

(i) [Reserved]

(j) You must maintain records as specified in §§ 63.3930 and 63.3931.

§ 63.3964 What are the general requirements for performance tests?

(a) You must conduct each performance test required by § 63.3960 according to the requirements in § 63.7(e)(1) and under the conditions in this section, unless you obtain a waiver of the performance test according to the provisions in § 63.7(h).

(1) *Representative coating operation operating conditions.* You must conduct the performance test under representative operating conditions for the coating operation. Operations during periods of startup, shutdown, or malfunction and during periods of nonoperation do not constitute representative conditions. You must record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation.

(2) *Representative emission capture system and add-on control device operating conditions.* You must conduct the performance test when the emission capture system and add-on control device are operating at a representative flow rate, and the add-on control device is operating at a representative inlet concentration. You must record information that is necessary to document emission capture system and add-on control device operating conditions during the test and explain why the conditions represent normal operation.

(b) You must conduct each performance test of an emission capture system according to the requirements in § 63.3965. You must conduct each performance test of an add-on control device according to the requirements in § 63.3966.

§ 63.3965 How do I determine the emission capture system efficiency?

You must use the procedures and test methods in this section to determine capture efficiency as part of the performance test required by § 63.3960.

(a) *Assuming 100 percent capture efficiency.* You may assume the capture system efficiency is 100 percent if both of the conditions in paragraphs (a)(1) and (2) of this section are met:

(1) The capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and directs all the exhaust gases from the enclosure to an add-on control device.

(2) All coatings, thinners and/or other additives, and cleaning materials used in the coating operation are applied within the capture system; coating solvent flash-off, curing, and drying occurs within the capture system; and the removal or evaporation of cleaning materials from the surfaces they are applied to occurs within the capture system. For example, this criterion is not met if parts enter the open shop environment when being moved between a spray booth and a curing oven.

(b) *Measuring capture efficiency.* If the capture system does not meet both of the criteria in paragraphs (a)(1) and (2) of this section, then you must use one of the three protocols described in paragraphs (c), (d), and (e) of this section to measure capture efficiency. The capture efficiency measurements use TVH capture efficiency as a surrogate for organic HAP capture efficiency. For the protocols in paragraphs (c) and (d) of this section, the capture efficiency measurement must consist of three test runs. Each test run must be at least 3 hours duration or the length of a production run, whichever is longer, up to 8 hours. For the purposes of this test, a production run means the time required for a single part to go from the beginning to the end of the production, which includes

surface preparation activities and drying and curing time.

(c) *Liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* The liquid-to-uncaptured-gas protocol compares the mass of liquid TVH in materials used in the coating operation to the mass of TVH emissions not captured by the emission capture system. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (c)(1) through (6) of this section to measure emission capture system efficiency using the liquid-to-uncaptured-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners and/or other additives, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions for routing to an add-on control device, such as the entrance and exit areas of an oven or spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204A or 204F of appendix M to 40 CFR part 51 to determine the mass fraction of TVH liquid input from each coating, thinner and/or other additive, and cleaning material used in the coating operation during each capture efficiency test run. To make the determination, substitute TVH for each occurrence of the term VOC in the methods.

(3) Use Equation 1 of this section to calculate the total mass of TVH liquid input from all the coatings, thinners and/or other additives, and cleaning materials used in the coating operation during each capture efficiency test run:

$$TVH_{used} = \sum_{i=1}^{n} (TVH_i)(Vol_i)(D_i) \qquad \text{(Eq. 1)}$$

Where:

TVH_{used} = Mass of liquid TVH in materials used in the coating operation during the capture efficiency test run, kg.

TVH_i = Mass fraction of TVH in coating, thinner and/or other additive, or cleaning material, i, that is used in the coating operation during the capture efficiency test run, kg TVH per kg material.

Vol_i = Total volume of coating, thinner and/or other additive, or cleaning material, i, used in the coating operation during the capture efficiency test run, liters.

D_i = Density of coating, thinner and/or other additive, or cleaning material, i, kg material per liter material.

n = Number of different coatings, thinners and/or other additives, and cleaning materials used in the coating operation during the capture efficiency test run.

(4) Use Method 204D or 204E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system. They are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D of appendix M to 40 CFR part 51 if the enclosure is a temporary total enclosure.

(ii) Use Method 204E of appendix M to 40 CFR 51 if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.

(5) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 2 of this section:

$$CE = \frac{(TVH_{used} - TVH_{uncaptured})}{TVH_{used}} \times 100 \qquad \text{(Eq. 2)}$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

TVH_{used} = Total mass of TVH liquid input used in the coating operation during the capture efficiency test run, kg.

$TVH_{uncaptured}$ = Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.

(6) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(d) *Gas-to-gas protocol using a temporary total enclosure or a building enclosure.* The gas-to-gas protocol compares the mass of TVH emissions captured by the emission capture system to the mass of TVH emissions not captured. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (d)(1) through (5) of this section to measure emission capture system efficiency using the gas-to-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners and/or other additives, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions generated by the coating operation for routing to an add-on control device, such as the entrance and exit areas of an oven or a spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204B or 204C of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions captured by the emission

capture system during each capture efficiency test run as measured at the inlet to the add-on control device. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) The sampling points for the Method 204B or 204C measurement must be upstream from the add-on control device and must represent total emissions routed from the capture system and entering the add-on control device.

(ii) If multiple emission streams from the capture system enter the add-on control device without a single common duct, then the emissions entering the add-on control device must be simultaneously measured in each duct and the total emissions entering the add-on control device must be determined.

(3) Use Method 204D or 204E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system; they are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D of appendix M to 40 CFR part 51 if the enclosure is a temporary total enclosure.

(ii) Use Method 204E of appendix M to 40 CFR part 51 if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.

(4) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 3 of this section:

$$CE = \frac{TVH_{captured}}{\left(TVH_{captured} + TVH_{uncaptured}\right)} \times 100 \qquad \text{(Eq. 3)}$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

$TVH_{captured}$ = Total mass of TVH captured by the emission capture system as measured at the inlet to the add-on control device during the emission capture efficiency test run, kg.

$TVH_{uncaptured}$ = Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.

(5) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(e) *Alternative capture efficiency protocol.* As an alternative to the procedures specified in paragraphs (c) and (d) of this section and subject to the approval of the Administrator, you may determine capture efficiency using any other capture efficiency protocol and test methods that satisfy the criteria of either the DQO or LCL approach as described in appendix A to subpart KK of this part.

§ 63.3966 How do I determine the add-on control device emission destruction or removal efficiency?

You must use the procedures and test methods in this section to determine the add-on control device emission destruction or removal efficiency as part of the performance test required by § 63.3960. You must conduct three test runs as specified in § 63.7(e)(3) and each test run must last at least 1 hour. If the source is a magnet wire coating machine, you may use the procedures in section 3.0 of appendix A to this subpart as an alternative.

(a) For all types of add-on control devices, use the test methods specified in paragraphs (a)(1) through (5) of this section.

(1) Use Method 1 or 1A of appendix A to 40 CFR part 60, as appropriate, to select sampling sites and velocity traverse points.

(2) Use Method 2, 2A, 2C, 2D, 2F, or 2G of appendix A to 40 CFR part 60, as appropriate, to measure gas volumetric flow rate.

(3) Use Method 3, 3A, or 3B of appendix A to 40 CFR part 60, as appropriate, for gas analysis to determine dry molecular weight.

(4) Use Method 4 of appendix A to 40 CFR part 60, to determine stack gas moisture.

(5) Methods for determining gas volumetric flow rate, dry molecular weight, and stack gas moisture must be performed, as applicable, during each test run.

(b) Measure total gaseous organic mass emissions as carbon at the inlet and outlet of the add-on control device simultaneously, using either Method 25 or 25A of appendix A to 40 CFR part 60.

(1) Use Method 25 if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be more than 50 parts per million (ppm) at the control device outlet.

(2) Use Method 25A if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be 50 ppm or less at the control device outlet.

(3) Use Method 25A if the add-on control device is not an oxidizer.

(c) If two or more add-on control devices are used for the same emission stream, then you must measure emissions at the outlet to the atmosphere of each device. For example, if one add-on control device is a concentrator with an outlet to the atmosphere for the high-volume dilute stream that has been treated by the concentrator, and a second add-on control device is an oxidizer with an outlet to the atmosphere for the low-volume concentrated stream that is treated with the oxidizer, you must measure emissions at the outlet of the oxidizer and the high volume dilute stream outlet of the concentrator.

(d) For each test run, determine the total gaseous organic emissions mass flow rates for the inlet and the outlet of the add-on control device, using Equation 1 of this section. If there is more than one inlet or outlet to the add-on control device, you must calculate the total gaseous organic mass flow rate using Equation 1 of this section for each inlet and each outlet and then total all of the inlet emissions and total all of the outlet emissions:

$$M_f = Q_{sd} C_c (12)\ (0.0416)\ \left(10^{-6}\right) \qquad \text{(Eq. 1)}$$

Where:

M_f = Total gaseous organic emissions mass flow rate, kg per hour (h).

C_c = Concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, parts per million by volume (ppmv), dry basis.

Q_{sd} = Volumetric flow rate of gases entering or exiting the add-on control device, as determined by Method 2, 2A, 2C, 2D, 2F, or 2G, dry standard cubic meters/hour (dscm/h).

0.0416 = Conversion factor for molar volume, kg-moles per cubic meter (mol/m³) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg).

(e) For each test run, determine the add-on control device organic emissions destruction or removal efficiency, using Equation 2 of this section:

$$DRE = \frac{M_{fi} - M_{fo}}{M_{fi}} \times 100 \qquad \text{(Eq. 2)}$$

Where:

DRE = Organic emissions destruction or removal efficiency of the add-on control device, percent.

M_{fi} = Total gaseous organic emissions mass flow rate at the inlet(s) to the add-on control device, using Equation 1 of this section, kg/h.

M_{fo} = Total gaseous organic emissions mass flow rate at the outlet(s) of the add-on control device, using Equation 1 of this section, kg/h.

(f) Determine the emission destruction or removal efficiency of the add-on control device as the average of the efficiencies determined in the three test runs and calculated in Equation 2 of this section.

§ 63.3967 How do I establish the emission capture system and add-on control device operating limits during the performance test?

During the performance test required by § 63.3960 and described in §§ 63.3964, 63.3965, and 63.3966, you must establish the operating limits required by § 63.3892 according to this section, unless you have received approval for alternative monitoring and operating limits under § 63.8(f) as specified in § 63.3892.

(a) *Thermal oxidizers.* If your add-on control device is a thermal oxidizer, establish the operating limits according to paragraphs (a)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.

(2) Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature is the minimum operating limit for your thermal oxidizer.

(b) *Catalytic oxidizers.* If your add-on control device is a catalytic oxidizer, establish the operating limits according to either paragraphs (b)(1) and (2) or paragraphs (b)(3) and (4) of this section. If the source is a magnet wire coating machine, you may use the procedures in section 3.0 of appendix A to this subpart as an alternative.

(1) During the performance test, you must monitor and record the temperature just before the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. These are the minimum operating limits for your catalytic oxidizer.

(3) You must monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in paragraph (b)(4) of this section. During the performance test, you must monitor and record the temperature just before the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer.

(4) You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s) for which you elect to monitor according to paragraph (b)(3) of this section. The plan must address, at a minimum, the elements specified in paragraphs (b)(4)(i) through (iii) of this section.

(i) Annual sampling and analysis of the catalyst activity (*i.e.*, conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures. If problems are found during the catalyst activity test, you must replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations.

(ii) Monthly external inspection of the catalytic oxidizer system, including the burner assembly and fuel supply lines for problems and, as necessary, adjust the equipment to assure proper air-to-fuel mixtures.

(iii) Annual internal inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found during the annual internal inspection of the catalyst, you must replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations. If the catalyst bed is replaced and is not of like or better kind and quality as the old catalyst then you must conduct a new performance test to determine destruction efficiency according to § 63.3966. If a catalyst bed is replaced and the replacement catalyst is of like or better kind and quality as the old catalyst, then a new performance test to determine destruction efficiency is not required and you may continue to use the previously established operating limits for that catalytic oxidizer.

(c) *Regenerative carbon adsorbers.* If your add-on control device is a regenerative carbon adsorber, establish the operating limits according to paragraphs (c)(1) and (2) of this section.

(1) You must monitor and record the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle, and the carbon bed temperature after each carbon bed regeneration and cooling cycle for the regeneration cycle either immediately preceding or immediately following the performance test.

(2) The operating limits for your regenerative carbon adsorber are the minimum total desorbing gas mass flow recorded during the regeneration cycle and the maximum carbon bed temperature recorded after the cooling cycle.

(d) *Condensers.* If your add-on control device is a condenser, establish the operating limits according to paragraphs (d)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the condenser outlet (product side) gas temperature at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average condenser outlet (product side) gas temperature maintained during the performance test. This average condenser outlet gas temperature is the maximum operating limit for your condenser.

(e) *Concentrators.* If your add-on control device includes a concentrator, you must establish operating limits for the concentrator according to paragraphs (e)(1) through (4) of this section.

(1) During the performance test, you must monitor and record the desorption concentrate stream gas temperature at least once every 15 minutes during each of the three runs of the performance test.

(2) Use the data collected during the performance test to calculate and record the average temperature. This is the minimum operating limit for the desorption concentrate gas stream temperature.

(3) During the performance test, you must monitor and record the pressure drop of the dilute stream across the concentrator at least once every 15 minutes during each of the three runs of the performance test.

(4) Use the data collected during the performance test to calculate and record the average pressure drop. This is the minimum operating limit for the dilute stream across the concentrator.

(f) *Emission capture systems.* For each capture device that is not part of a PTE that meets the criteria of § 63.3965(a), establish an operating limit for either the gas volumetric flow rate or duct static pressure, as specified in paragraphs (f)(1) and (2) of this section. The operating limit for a PTE is specified in Table 1 to this subpart. If the source is a magnet wire coating machine, you may use the procedures in section 2.0 of appendix A to this subpart as an alternative.

(1) During the capture efficiency determination required by § 63.3960 and described in §§ 63.3964 and 63.3965, you must monitor and record either the gas volumetric flow rate or the duct static pressure for each separate capture device in your emission capture system at least once every 15 minutes during each of the three test runs at a point in the duct between the capture device and the add-on control device inlet.

(2) Calculate and record the average gas volumetric flow rate or duct static pressure for the three test runs for each capture device. This average gas volumetric flow rate or duct static pressure is the minimum operating limit for that specific capture device.

§ 63.3968 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?

(a) *General.* You must install, operate, and maintain each CPMS specified in paragraphs (c), (e), (f), and (g) of this section according to paragraphs (a)(1) through (6) of this section. You must install, operate, and maintain each CPMS specified in paragraphs (b) and (d) of this section according to paragraphs (a)(3) through (5) of this section.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four equally spaced successive cycles of CPMS operation in 1 hour.

(2) You must determine the average of all recorded readings for each successive 3-hour period of the emission capture system and add-on control device operation.

(3) You must record the results of each inspection, calibration, and validation check of the CPMS.

(4) You must maintain the CPMS at all times and have available necessary parts for routine repairs of the monitoring equipment.

(5) You must operate the CPMS and collect emission capture system and add-on control device parameter data at all times that a controlled coating operation is operating, except during monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, if applicable, calibration checks and required zero and span adjustments).

(6) You must not use emission capture system or add-on control device parameter data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities when calculating data averages. You must use all the data collected during all other periods in calculating the data averages for determining compliance with the emission capture system and add-on control device operating limits.

(7) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the CPMS to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system is out-of-control and data are not available for required calculations is a deviation from the monitoring requirements.

(b) *Capture system bypass line.* You must meet the requirements of paragraphs (b)(1) and (2) of this section for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

(1) You must monitor or secure the valve or closure mechanism controlling the bypass line in a nondiverting position in such a way that the valve or closure mechanism cannot be opened without creating a record that the valve was opened. The method used to monitor or secure the valve or closure mechanism must meet one of the requirements specified in paragraphs (b)(1)(i) through (v) of this section.

(i) *Flow control position indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. The time of occurrence and flow control position must be recorded, as well as every time the flow direction is changed. The flow control position indicator must be installed at the entrance to any bypass line that could divert the emissions away from the add-on control device to the atmosphere.

(ii) *Car-seal or lock-and-key valve closures.* Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. You must visually inspect the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position, and the emissions are not diverted away from the add-on control device to the atmosphere.

(iii) *Valve closure monitoring.* Ensure that any bypass line valve is in the closed (nondiverting) position through monitoring of valve position at least once every 15 minutes. You must inspect the monitoring system at least once every month to verify that the monitor will indicate valve position.

(iv) *Automatic shutdown system.* Use an automatic shutdown system in which the coating operation is stopped when flow is diverted by the bypass line away from the add-on control device to the atmosphere when the coating operation is running. You must inspect the automatic shutdown system at least once every month to verify that it will detect diversions of flow and shut down the coating operation.

(v) *Flow direction indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow direction indicator that takes a reading at least once every

15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. Each time the flow direction changes, the next reading of the time of occurrence and flow direction must be recorded. The flow direction indicator must be installed in each bypass line or air makeup supply line that could divert the emissions away from the add-on control device to the atmosphere.

(2) If any bypass line is opened, you must include a description of why the bypass line was opened and the length of time it remained open in the semiannual compliance reports required in § 63.3920.

(c) *Thermal oxidizers and catalytic oxidizers.* If you are using a thermal oxidizer or catalytic oxidizer as an add-on control device (including those used with concentrators or with carbon adsorbers to treat desorbed concentrate streams), you must comply with the requirements in paragraphs (c)(1) through (3) of this section:

(1) For a thermal oxidizer, install a gas temperature monitor in the firebox of the thermal oxidizer or in the duct immediately downstream of the firebox before any substantial heat exchange occurs.

(2) For a catalytic oxidizer, install gas temperature monitors upstream and/or downstream of the catalyst bed as required in § 63.3967(b).

(3) For all thermal oxidizers and catalytic oxidizers, you must meet the requirements in paragraphs (a) and (c)(3)(i) through (v) of this section for each gas temperature monitoring device.

(i) Locate the temperature sensor in a position that provides a representative temperature.

(ii) Use a temperature sensor with a measurement sensitivity of 5 degrees Fahrenheit or 1.0 percent of the temperature value, whichever is larger.

(iii) Before using the sensor for the first time or when relocating or replacing the sensor, perform a validation check by comparing the sensor output to a calibrated temperature measurement device or by comparing the sensor output to a simulated temperature.

(iv) Conduct an accuracy audit every quarter and after every deviation. Accuracy audit methods include comparisons of sensor output to redundant temperature sensors, to calibrated temperature measurement devices, or to temperature simulation devices.

(v) Conduct a visual inspection of each sensor every quarter if redundant temperature sensors are not used.

(d) *Regenerative carbon adsorbers.* If you are using a regenerative carbon adsorber as an add-on control device, you must monitor the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle, the carbon bed temperature after each regeneration and cooling cycle, and comply with paragraphs (a)(3) through (5) and (d)(1) through (3) of this section.

(1) The regeneration desorbing gas mass flow monitor must be an integrating device having a measurement sensitivity of plus or minus 10 percent capable of recording the total regeneration desorbing gas mass flow for each regeneration cycle.

(2) The carbon bed temperature monitor must be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.

(3) For all regenerative carbon adsorbers, you must meet the requirements in paragraphs (c)(3)(i) through (v) of this section for each temperature monitoring device.

(e) *Condensers.* If you are using a condenser, you must monitor the condenser outlet (product side) gas temperature and comply with paragraphs (a) and (e)(1) and (2) of this section.

(1) The temperature monitor must provide a gas temperature record at least once every 15 minutes.

(2) For all condensers, you must meet the requirements in paragraphs (c)(3)(i) through (v) of this section for each temperature monitoring device.

(f) *Concentrators.* If you are using a concentrator, such as a zeolite wheel or rotary carbon bed concentrator, you must comply with the requirements in paragraphs (f)(1) and (2) of this section.

(1) You must install a temperature monitor in the desorption gas stream. The temperature monitor must meet the requirements in paragraphs (a) and (c)(3) of this section.

(2) You must install a device to monitor pressure drop across the zeolite wheel or rotary carbon bed. The pressure monitoring device must meet the requirements in paragraphs (a) and (g)(2) of this section.

(g) *Emission capture systems.* The capture system monitoring system must comply with the applicable requirements in paragraphs (g)(1) and (2) of this section. If the source is a magnet wire coating machine, you may use the procedures in section 2.0 of appendix A to this subpart as an alternative.

(1) For each flow measurement device, you must meet the requirements in paragraphs (a) and (g)(1)(i) through (vii) of this section.

(i) Locate a flow sensor in a position that provides a representative flow measurement in the duct from each capture device in the emission capture system to the add-on control device.

(ii) Use a flow sensor with an accuracy of at least 10 percent of the flow.

(iii) Perform an initial sensor calibration in accordance with the manufacturer's requirements.

(iv) Perform a validation check before initial use or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values with electronic signal simulations or via relative accuracy testing.

(v) Conduct an accuracy audit every quarter and after every deviation. Accuracy audit methods include comparisons of sensor values with electronic signal simulations or via relative accuracy testing.

(vi) Perform leak checks monthly.

(vii) Perform visual inspections of the sensor system quarterly if there is no redundant sensor.

(2) For each pressure drop measurement device, you must comply with the requirements in paragraphs (a) and (g)(2)(i) through (vii) of this section.

(i) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure drop across each opening you are monitoring.

(ii) Use a pressure sensor with an accuracy of at least 0.5 inches of water column or 5 percent of the measured value, whichever is larger.

(iii) Perform an initial calibration of the sensor according to the manufacturer's requirements.

(iv) Conduct a validation check before initial operation or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.

(v) Conduct accuracy audits every quarter and after every deviation. Accuracy audits include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.

(vi) Perform monthly leak checks on pressure connections. A pressure of at least 1.0 inches of water column to the connection must yield a stable sensor result for at least 15 seconds.

(vii) Perform a visual inspection of the sensor at least monthly if there is no redundant sensor.

Other Requirements and Information

§ 63.3980 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (EPA), or a delegated authority such as your State, local, or tribal agency. If the Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are listed in paragraphs (c)(1) through (4) of this section:

(1) Approval of alternatives to the requirements in § 63.3881 through 3883 and § 63.3890 through 3893.

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.3981 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in 40 CFR 63.2, and in this section as follows:

Additive means a material that is added to a coating after purchase from a supplier (*e.g.*, catalysts, activators, accelerators).

Add-on control means an air pollution control device, such as a thermal oxidizer or carbon adsorber, that reduces pollution in an air stream by destruction or removal before discharge to the atmosphere.

Adhesive, adhesive coating means any chemical substance that is applied for the purpose of bonding two surfaces together. Products used on humans and animals, adhesive tape, contact paper, or any other product with an adhesive incorporated onto or in an inert substrate shall not be considered adhesives under this subpart.

Assembled on-road vehicle coating means any coating operation in which coating is applied to the surface of some component or surface of a fully assembled motor vehicle or trailer intended for on-road use including, but not limited to, components or surfaces on automobiles and light-duty trucks that have been repaired after a collision or otherwise repainted, fleet delivery trucks, and motor homes and other recreational vehicles (including camping trailers and fifth wheels). Assembled on-road vehicle coating includes the concurrent coating of parts of the assembled on-road vehicle that are painted off-vehicle to protect systems, equipment, or to allow full coverage. Assembled on-road vehicle coating does not include surface coating operations that meet the applicability criteria of the automobiles and light-duty trucks NESHAP. Assembled on-road vehicle coating also does not include the use of adhesives, sealants, and caulks used in assembling on-road vehicles.

Capture device means a hood, enclosure, room, floor sweep, or other means of containing or collecting emissions and directing those emissions into an add-on air pollution control device.

Capture efficiency or capture system efficiency means the portion (expressed as a percentage) of the pollutants from an emission source that is delivered to an add-on control device.

Capture system means one or more capture devices intended to collect emissions generated by a coating operation in the use of coatings or cleaning materials, both at the point of application and at subsequent points where emissions from the coatings and cleaning materials occur, such as flashoff, drying, or curing. As used in this subpart, multiple capture devices that collect emissions generated by a coating operation are considered a single capture system.

Cleaning material means a solvent used to remove contaminants and other materials, such as dirt, grease, oil, and dried or wet coating (*e.g.*, depainting or paint stripping), from a substrate before or after coating application or from equipment associated with a coating operation, such as spray booths, spray guns, racks, tanks, and hangers. Thus, it includes any cleaning material used on substrates or equipment or both.

Coating means a material applied to a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, paints, sealants, liquid plastic coatings, caulks, inks, adhesives, and maskants. Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances, or paper film or plastic film which may be pre-coated with an adhesive by the film manufacturer, are not considered coatings for the purposes of this subpart. A liquid plastic coating means a coating made from fine particle-size polyvinyl chloride (PVC) in solution (also referred to as a plastisol).

Coating operation means equipment used to apply cleaning materials to a substrate to prepare it for coating application (surface preparation) or to remove dried coating; to apply coating to a substrate (coating application) and to dry or cure the coating after application; or to clean coating operation equipment (equipment cleaning). A single coating operation may include any combination of these types of equipment, but always includes at least the point at which a given quantity of coating or cleaning material is applied to a given part and all subsequent points in the affected source where organic HAP are emitted from the specific quantity of coating or cleaning material on the specific part. There may be multiple coating operations in an affected source. Coating application with handheld, non-refillable aerosol containers, touch-up markers, or marking pens is not a coating operation for the purposes of this subpart.

Coatings solids means the nonvolatile portion of the coating that makes up the dry film.

Continuous parameter monitoring system (CPMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this subpart, used to sample, condition (if applicable), analyze, and provide a record of coating operation, or capture system, or add-on control device parameters.

Controlled coating operation means a coating operation from which some or all of the organic HAP emissions are routed through an emission capture system and add-on control device.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart including but not limited to, any emission limit or operating limit or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limit, or operating limit, or work practice standard in this subpart during startup, shutdown, or

malfunction, regardless of whether or not such failure is permitted by this subpart.

Emission limitation means the aggregate of all requirements associated with a compliance option including emission limit, operating limit, work practice standard, etc.

Enclosure means a structure that surrounds a source of emissions and captures and directs the emissions to an add-on control device.

Exempt compound means a specific compound that is not considered a VOC due to negligible photochemical reactivity. The exempt compounds are listed in 40 CFR 51.100(s).

Extreme performance fluoropolymer coating means coatings that are formulated systems based on fluoropolymer resins which often contain bonding matrix polymers dissolved in non-aqueous solvents as well as other ingredients. Extreme performance fluoropolymer coatings are typically used when one or more critical performance criteria are required including, but not limited to a nonstick low-energy surface, dry film lubrication, high resistance to chemical attack, extremely wide operating temperature, high electrical insulating properties, or that the surface comply with government (*e.g.*, USDA, FDA) or third party specifications for health, safety, reliability, or performance. Once applied to a substrate, extreme performance fluoropolymer coatings undergo a curing process that typically requires high temperatures, a chemical reaction, or other specialized technology.

Facility maintenance means the routine repair or renovation (including the surface coating) of the tools, equipment, machinery, and structures that comprise the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity.

General use coating means any material that meets the definition of coating but does not meet the definition of high performance coating, rubber-to-metal coating, magnet wire coating, or extreme performance fluoropolymer coating as defined in this section.

High performance architectural coating means any coating applied to architectural subsections which is required to meet the specifications of Architectural Aluminum Manufacturer's Association's publication number AAMA 605.2–2000.

High performance coating means any coating that meets the definition of high performance architectural coating or high temperature coating in this section.

High temperature coating means any coating applied to a substrate which during normal use must withstand temperatures of at least 538 degrees Celsius (1000 degrees Fahrenheit).

Hobby shop means any surface coating operation, located at an affected source, that is used exclusively for personal, noncommercial purposes by the affected source's employees or assigned personnel.

Magnet wire coatings, commonly referred to as magnet wire enamels, are applied to a continuous strand of wire which will be used to make turns (windings) in electrical devices such as coils, transformers, or motors. Magnet wire coatings provide high dielectric strength and turn-to-turn conductor insulation. This allows the turns of an electrical device to be placed in close proximity to one another which leads to increased coil effectiveness and electrical efficiency.

Magnet wire coating machine means equipment which applies and cures magnet wire coatings.

Manufacturer's formulation data means data on a material (such as a coating) that are supplied by the material manufacturer based on knowledge of the ingredients used to manufacture that material, rather than based on testing of the material with the test methods specified in § 63.3941. Manufacturer's formulation data may include, but are not limited to, information on density, organic HAP content, volatile organic matter content, and coating solids content.

Mass fraction of organic HAP means the ratio of the mass of organic HAP to the mass of a material in which it is contained, expressed as kg of organic HAP per kg of material.

Month means a calendar month or a pre-specified period of 28 days to 35 days to allow for flexibility in recordkeeping when data are based on a business accounting period.

Non-HAP coating means, for the purposes of this subpart, a coating that contains no more than 0.1 percent by mass of any individual organic HAP that is an OSHA-defined carcinogen as specified in 29 CFR 1910.1200(d)(4) and no more than 1.0 percent by mass for any other individual HAP.

Organic HAP content means the mass of organic HAP emitted per volume of coating solids used for a coating calculated using Equation 2 of § 63.3941. The organic HAP content is determined for the coating in the condition it is in when received from its manufacturer or supplier and does not account for any alteration after receipt. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, organic HAP content is the mass of organic HAP that is emitted, rather than the organic HAP content of the coating as it is received.

Permanent total enclosure (PTE) means a permanently installed enclosure that meets the criteria of Method 204 of appendix M, 40 CFR part 51, for a PTE and that directs all the exhaust gases from the enclosure to an add-on control device.

Personal watercraft means a vessel (boat) which uses an inboard motor powering a water jet pump as its primary source of motive power and which is designed to be operated by a person or persons sitting, standing, or kneeling on the vessel, rather than in the conventional manner of sitting or standing inside the vessel.

Protective oil means an organic material that is applied to metal for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oil includes, but is not limited to, lubricating oils, evaporative oils (including those that evaporate completely), and extrusion oils. Protective oils used on miscellaneous metal parts and products include magnet wire lubricants and soft temporary protective coatings that are removed prior to installation or further assembly of a part or component.

Reactive adhesive means adhesive systems composed, in part, of volatile monomers that react during the adhesive curing reaction, and, as a result, do not evolve from the film during use. These volatile components instead become integral parts of the adhesive through chemical reaction. At least 70 percent of the liquid components of the system, excluding water, react during the process.

Research or laboratory facility means a facility whose primary purpose is for research and development of new processes and products, that is conducted under the close supervision of technically trained personnel, and is not engaged in the manufacture of final or intermediate products for commercial purposes, except in a *de minimis* manner.

Responsible official means responsible official as defined in 40 CFR 70.2.

Rubber-to-metal coatings are coatings that contain heat-activated polymer systems in either solvent or water that, when applied to metal substrates, dry to a non-tacky surface and react chemically with the rubber and metal during a vulcanization process.

Startup, initial means the first time equipment is brought online in a facility.

Surface preparation means use of a cleaning material on a portion of or all

of a substrate. This includes use of a cleaning material to remove dried coating, which is sometimes called depainting.

Temporary total enclosure means an enclosure constructed for the purpose of measuring the capture efficiency of pollutants emitted from a given source as defined in Method 204 of appendix M, 40 CFR part 51.

Thinner means an organic solvent that is added to a coating after the coating is received from the supplier.

Total volatile hydrocarbon (TVH) means the total amount of nonaqueous volatile organic matter determined according to Methods 204 and 204A through 204F of appendix M to 40 CFR part 51 and substituting the term TVH each place in the methods where the term VOC is used. The TVH includes both VOC and non-VOC.

Uncontrolled coating operation means a coating operation from which none of the organic HAP emissions are routed through an emission capture system and add-on control device.

Volatile organic compound (VOC) means any compound defined as VOC in 40 CFR 51.100(s).

Volume fraction of coating solids means the ratio of the volume of coating solids (also known as the volume of nonvolatiles) to the volume of a coating in which it is contained; liters (gal) of coating solids per liter (gal) of coating.

Wastewater means water that is generated in a coating operation and is collected, stored, or treated prior to being discarded or discharged.

Tables to Subpart MMMM of Part 63

If you are required to comply with operating limits by § 63.3892(c), you must comply with the applicable operating limits in the following table:

TABLE 1 TO SUBPART MMMM OF PART 63.—OPERATING LIMITS IF USING THE EMISSION RATE WITH ADD-ON CONTROLS OPTION

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
1. Thermal oxidizer	a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to § 63.3967(a).	i. Collecting the combustion temperature data according to § 63.3968(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average combustion temperature at or above the temperature limit.
2. Catalytic oxidizer	a. The average temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to § 63.3967(b) (for magnet wire coating machines, temperature can be monitored before or after the catalyst bed); and either	i. Collecting the temperature data according to § 63.3968(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature before (or for magnet wire coating machines after) the catalyst bed at or above the temperature limit.
	b. Ensure that the average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to § 63.3967(b) (2); or	i. Collecting the temperature data according to § 63.3968(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature difference at or above the temperature difference limit.
	c. Develop and implement an inspection and maintenance plan according to § 63.3967(b)(4) or for magnet wire coating machines according to section 3.0 of appendix A to this subpart.	i. Maintaining and up-to-date inspection and maintenance plan, records of annual catalyst activity checks, records of monthly inspections of the oxidizer system, and records of the annual internal inspections of the catalyst bed. If a problem is discovered during a monthly or annual inspection required by § 63.3967(b)(4) or for magnet wire coating machines by section 3.0 of appendix A to this subpart, you must take corrective action as soon as practicable consistent with the manufacturer's recommendations.
3. Regenerative carbon adsorber.	a. The total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each carbon bed regeneration cycle must not fall below the total regeneration desorbing gas mass flow limit established according to § 63.3967(c); and	i. Measuring the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle according to § 63.3968(d); and ii. Maintaining the total regeneration desorbing gas mass flow at or above the mass flow limit.
	b. The temperature of the carbon bed, after completing each regeneration and any cooling cycle, must not exceed the carbon bed temperature limit established according to § 63.3967(c).	i. Measuring the temperature of the carbon bed after completing each regeneration and any cooling cycle according to § 63.3968(d); and ii. Operating the carbon beds such that each carbon bed is not returned to service until completing each regeneration and any cooling cycle until the recorded temperature of the carbon bed is at or below the temperature limit.
4. Condenser	a. The average condenser outlet (product side) gas temperature in any 3-hour period must not exceed the temperature limit established according to § 63.3967(d).	i. Collecting the condenser outlet (product side) gas temperature according to § 63.3968(e); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average gas temperature at the outlet at or below the temperature limit.
5. Concentrators, including zeolite wheels and rotary carbon adsorbers.	a. The average gas temperature of the desorption concentrate stream in any 3-hour period must not fall below the limit established according to § 63.3967(e); and	i. Collecting the temperature data according to 63.3968(f); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature at or above the temperature limit.

TABLE 1 TO SUBPART MMMM OF PART 63.—OPERATING LIMITS IF USING THE EMISSION RATE WITH ADD-ON CONTROLS OPTION—Continued

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
	b. The average pressure drop of the dilute stream across the concentrator in any 3-hour period must not fall below the limit established according to § 63.3967(e).	i. Collecting the pressure drop data according to 63.3968(f); ii. Reducing the pressure drop data to 3-hour block averages; and iii. Maintaining the 3-hour average pressure drop at or above the pressure drop limit.
6. Emission capture system that is a PTE according to § 63.3965(a).	a. The direction of the air flow at all times must be into the enclosure; and either	i. Collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to § 63.3968(b)(1) or the pressure drop across the enclosure according to § 63.3968(g)(2); and ii. Maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.
	b. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minutes; or	i. See items 6.a.i and 6.a.ii.
	c. The pressure drop across the enclosure must be at least 0.007 inch H_2O, as established in Method 204 of appendix M to 40 CFR part 51.	i. See items 6.a.i and 6.a.ii.
7. Emission capture system that is not a PTE according to § 63.3965(a).	a. The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to § 63.3967(f).	i. Collecting the gas volumetric flow rate or duct static pressure for each capture device according to § 63.3968(g); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limited.

You must comply with the applicable General Provisions requirements according to the following table:

TABLE 2 TO SUBPART MMMM OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART MMMM OF PART 63

Citation	Subject	Applicable to subpart MMMM	Explanation
§ 63.1(a)(1)–(14)	General Applicability	Yes.	
§ 63.1(b)(1)–(3)	Initial Applicability Determination	Yes	Applicability to subpart MMMM is also specified in § 63.3881.
§ 63.1(c)(1)	Applicability After Standard Established	Yes.	
§ 63.1(c)(2)–(3)	Applicability of Permit Program for Area Sources.	No	Area sources are not subject to subpart MMMM.
§ 63.1(c)(4)–(5)	Extensions and Notifications	Yes.	
§ 63.1(e)	Applicability of Permit Program Before Relevant Standard is Set.	Yes.	
§ 63.2	Definitions	Yes	Additional definitions are specified in § 63.3981.
§ 63.1(a)–(c)	Units and Abbreviations	Yes.	
§ 63.4(a)(1)–(5)	Prohibited Activities	Yes.	
§ 63.4(b)–(c)	Circumvention/Severability	Yes.	
§ 63.5(a)	Construction/Reconstruction	Yes.	
§ 63.5(b)(1)–(6)	Requirements for Existing Newly Constructed, and Reconstructed Sources.	Yes.	
§ 63.5(d)	Application for Approval of Construction/Reconstruction.	Yes.	
§ 63.5(e)	Approval of Construction/Reconstruction	Yes.	
§ 63.5(f)	Approval of Construction/Reconstruction Based on Prior State Review.	Yes.	
§ 63.6(a)	Compliance With Standards and Maintenance Requirements—Applicability.	Yes.	
§ 63.6(b)(1)–(7)	Compliance Dates for New and Reconstructed Sources.	Yes	Section 63.3883 specifies the compliance dates.
§ 63.6(c)(1)–(5)	Compliance Dates for Existing Sources	Yes	Section 63.3883 specifies the compliance dates.

TABLE 2 TO SUBPART MMMM OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART MMMM OF PART 63—Continued

Citation	Subject	Applicable to subpart MMMM	Explanation
§ 63.6(e)(1)–(2)	Operation and Maintenance	Yes.	
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction Plan.	Yes	Only sources using an add-on control device to comply with the standard must complete startup, shutdown, and malfunction plans.
§ 63.6(f)(1)	Compliance Except During Startup, Shutdown, and Malfunction.	Yes	Applies only to sources using an add-on control device to comply with the standard.
§ 63.6(f)(2)–(3)	Methods for Determining Compliance.	Yes.	
§ 63.6(g)(1)–(3)	Use of an Alternative Standard	Yes.	
§ 63.6(h)	Compliance With Opacity/Visible Emission Standards.	No	Subpart MMMM does not establish opacity standards and does not require continuous opacity monitoring systems (COMS).
§ 63.6(i)(1)–(16)	Extension of Compliance	Yes.	
§ 63.6(j)	Presidential Compliance Exemption	Yes.	
§ 63.7(a)(1)	Performance Test Requirements—Applicability.	Yes	Applies to all affected sources. Additional requirements for performance testing are specified in §§ 63.3964, 63.3965, and 63.3966.
§ 63.7(a)(2)	Performance Test Requirements—Dates.	Yes	Applies only to performance tests for capture system and control device efficiency at sources using these to comply with the standard. Section 63.3960 specifies the schedule for performance test requirements that are earlier than those specified in § 63.7(a)(2).
§ 63.7(a)(3)	Performance Tests Required By the Administrator.	Yes.	
§ 63.7(b)–(e)	Performance Test Requirements—Notification, Quality Assurance, Facilities Necessary for Safe Testing, Conditions During Test.	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standard.
§ 63.7(f)	Performance Test Requirements—Use of Alternative Test Method.	Yes	Applies to all test methods except those used to determine capture system efficiency.
§ 63.7(g)–(h)	Performance Test Requirements—Data Analysis, Recordkeeping, Reporting, Waiver of Test.	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standard.
§ 63.8(a)(1)–(3)	Monitoring Requirements—Applicability	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for monitoring are specified in § 63.3968.
§ 63.8(a)(4)	Additional Monitoring Requirements	No	Subpart MMMM does not have monitoring requirements for flares.
§ 63.8(b)	Conduct of Monitoring	Yes.	
§ 63.8(c)(1)–(3)	Continuous Monitoring Systems (CMS) Operation and Maintenance.	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for CMS operations and maintenance are specified in § 63.3968.
§ 63.8(c)(4)	CMS	No	§ 63.3968 specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply.
§ 63.8(c)(5)	COMS	No	Subpart MMMM does not have opacity or visible emission standards.
§ 63.8(c)(6)	CMS Requirements	No	Section 63.3968 specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply.
§ 63.8(c)(7)	CMS Out-of-Control Periods	Yes.	

TABLE 2 TO SUBPART MMMM OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART MMMM OF PART 63—Continued

Citation	Subject	Applicable to subpart MMMM	Explanation
§ 63.8(c)(8)	CMS Out-of-Control Periods and Reporting.	No	§ 63.3920 requires reporting of CMS out-of-control periods.
§ 63.8(d)–(e)	Quality Control Program and CMS Performance Evaluation.	No	Subpart MMMM does not require the use of continuous emissions monitoring systems.
§ 63.8(f)(1)–(5)	Use of an Alternative Monitoring Method.	Yes.	
§ 63.8(f)(6)	Alternative to Relative Accuracy Test	No	Subpart MMMM does not require the use of continuous emissions monitoring systems.
§ 63.8(g)(1)–(5)	Data Reduction	No	Sections 63.3967 and 63.3968 specify monitoring data reduction.
§ 63.9(a)–(d)	Notification Requirements	Yes.	
§ 63.9(e)	Notification of Performance Test	Yes	Applies only to capture system and add-on control device performance tests at sources using these to comply with the standard.
§ 63.9(f)	Notification of Visible Emissions/Opacity Test.	No	Subpart MMMM does not have opacity or visible emissions standards.
§ 63.9(g)(1)–(3)	Additional Notifications When Using CMS.	No	Subpart MMMM does not require the use of continuous emissions monitoring systems.
§ 63.9(h)	Notification of Compliance Status	Yes	Section 63.3910 specifies the dates for submitting the notification of compliance status.
§ 63.9(i)	Adjustment of Submittal Deadlines	Yes.	
§ 63.9(j)	Change in Previous Information	Yes.	
§ 63.10(a)	Recordkeeping/Reporting—Applicability and General Information.	Yes.	
§ 63.10(b)(1)	General Recordkeeping Requirements	Yes	Additional requirements are specified in §§ 63.3930 and 63.3931.
§ 63.10(b)(2) (i)–(v)	Recordkeeping Relevant to Startup, Shutdown, and Malfunction Periods and CMS.	Yes	Requirements for startup, shutdown, and malfunction records only apply to add-on control devices used to comply with the standard.
§ 63.10(b)(2) (vi)–(xi)		Yes.	
§ 63.10(b)(2) (xii)	Records	Yes.	
§ 63.10(b)(2) (xiii)		No	Subpart MMMM does not require the use of continuous emissions monitoring systems.
§ 63.10(b)(2) (xiv)		Yes.	
§ 63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations.	Yes.	
§ 63.10(c) (1)–(6)	Additional Recordkeeping Requirements for Sources with CMS.	Yes.	
§ 63.10(c) (7)–(8)		No	The same records are required in § 63.3920(a)(7).
§ 63.10(c) (9)–(15)		Yes.	
§ 63.10(d)(1)	General Reporting Requirements	Yes	Additional requirements are specified in § 63.3920.
§ 63.10(d)(2)	Report of Performance Test Results	Yes	Additional requirements are specified in § 63.3920(b).
§ 63.10(d)(3)	Reporting Opacity or Visible Emissions Observations.	No	Subpart MMMM does not require opacity or visible emissions observations.
§ 63.10(d)(4)	Progress Reports for Sources With Compliance Extensions.	Yes.	
§ 63.10(d)(5)	Startup, Shutdown, and Malfunction Reports.	Yes	Applies only to add-on control devices at sources using these to comply with the standard.
§ 63.10(e) (1)–(2)	Additional CMS Reports	No	Subpart MMMM does not require the use of continuous emissions monitoring systems.
§ 63.10(e) (3)	Excess Emissions/CMS Performance Reports.	No	Section 63.3920 (b) specifies the contents of periodic compliance reports.
§ 63.10(e) (4)	COMS Data Reports	No	Subpart MMMMM does not specify requirements for opacity or COMS.
§ 63.10(f)	Recordkeeping/Reporting Waiver	Yes.	
§ 63.11	Control Device Requirements/Flares	No	Subpart MMMM does not specify use of flares for compliance.
§ 63.12	State Authority and Delegations	Yes.	

TABLE 2 TO SUBPART MMMM OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART MMMM OF PART 63—Continued

Citation	Subject	Applicable to subpart MMMM	Explanation
§ 63.13	Addresses	Yes.	
§ 63.14	Incorporation by Reference	Yes.	
§ 63.15	Availability of Information/Confidentiality	Yes.	

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data and which match either the solvent blend name or the chemical abstract series (CAS) number. If a solvent blend matches both the name and CAS number for an entry, that entry's organic HAP mass fraction must be used for that solvent blend. Otherwise, use the organic HAP mass fraction for the entry matching either the solvent blend name or CAS number, or use the organic HAP mass fraction from table 4 to this subpart if neither the name or CAS number match.

TABLE 3 TO SUBPART MMMM OF PART 63.—DEFAULT ORGANIC HAP MASS FRACTION FOR SOLVENTS AND SOLVENT BLENDS

Solvent/solvent blend	CAS. No.	Average organic HAP mass fraction	Typical organic HAP, percent by mass
1. Toluene	108–88–3	1.0	Toluene.
2. Xylene(s)	1330–20–7	1.0	Xylenes, ethylbenzene.
3. Hexane	110–54–3	0.5	n-hexane.
4. n-Hexane	110–54–3	1.0	n-hexane.
5. Ethylbenzene	100–41–4	1.0	Ethylbenzene.
6. Aliphatic 140	.....	0	None.
7. Aromatic 100	.....	0.02	1% xylene, 1% cumene.
8. Aromatic 150	.....	0.09	Naphthalene.
9. Aromatic naphtha	64742–95–6	0.02	1% xylene, 1% cumene.
10. Aromatic solvent	64742–94–5	0.1	Naphthalene.
11. Exempt mineral spirits	8032–32–4	0	None.
12. Ligroines (VM & P)	8032–32–4	0	None.
13. Lactol spirits	64742–89–6	0.15	Toluene.
14. Low aromatic white spirit	64742–82–1	0	None.
15. Mineral spirits	64742–88–7	0.01	Xylenes.
16. Hydrotreated naphtha	64742–48–9	0	None.
17. Hydrotreated light distillate	64742–47–8	0.001	Toluene.
18. Stoddard solvent	8052–41–3	0.01	Xylenes.
19. Super high-flash naphtha	64742–95–6	0.05	Xylenes.
20. Varsol® solvent	8052–49–3	0.01	0.5% xylenes, 0.5% ethylbenzene.
21. VM & P naphtha	64742–89–8	0.06	3% toluene, 3% xylene.
22. Petroleum distillate mixture	68477–31–6	0.08	4% naphthalene, 4% biphenyl.

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data.

TABLE 4 TO SUBPART MMMM OF PART 63.—DEFAULT ORGANIC HAP MASS FRACTION FOR PETROLEUM SOLVENT GROUPS [a]

Solvent type	Average organic HAP mass fraction	Typical organic HAP, percent by mass
Aliphatic [b]	0.03	1% Xylene, 1% Toluene, and 1% Ethylbenzene.
Aromatic [c]	0.06	4% Xylene, 1% Toluene, and 1% Ethylbenzene.

[a] Use this table only if the solvent blend does not match any of the solvent blends in Table 3 to this subpart by either solvent blend name or CAS number and you only know whether the blend is aliphatic or aromatic.

[b] Mineral Spirits 135, Mineral Spirits 150 EC, Naphtha, Mixed Hydrocarbon, Aliphatic Hydrocarbon, Aliphatic Naphtha, Naphthol Spirits, Petroleum Spirits, Petroleum Oil, Petroleum Naphtha, Solvent Naphtha, Solvent Blend.

[c] Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

Appendix A to Subpart MMMM of Part 63—Alternative Capture Efficiency and Destruction Efficiency Measurement and Monitoring Procedures for Magnet Wire Coating Operations

1.0 Introduction.

1.1 These alternative procedures for capture efficiency and destruction efficiency measurement and monitoring are intended principally for newer magnet wire coating machines where the control device is internal and integral to the oven so that it is difficult or infeasible to make gas measurements at the inlet to the control device.

1.2 In newer gas fired magnet wire ovens with thermal control (no catalyst), the burner tube serves as the control device (thermal oxidizer) for the process. The combustion of solvents in the burner tube is the principal source of heat for the oven.

1.3 In newer magnet wire ovens with a catalyst there is either a burner tube (gas fired ovens) or a tube filled with electric heating elements (electric heated oven) before the catalyst. A large portion of the solvent is often oxidized before reaching the catalyst. The combustion of solvents in the tube and across the catalyst is the principal source of heat for the oven. The internal catalyst in these ovens cannot be accessed without disassembly of the oven. This disassembly includes removal of the oven insulation. Oven reassembly often requires the installation of new oven insulation.

1.4 Some older magnet wire ovens have external afterburners. A significant portion of the solvent is oxidized within these ovens as well.

1.5 The alternative procedure for destruction efficiency determines the organic carbon content of the volatiles entering the control device based on the quantity of coating used, the carbon content of the volatile portion of the coating and the efficiency of the capture system. The organic carbon content of the control device outlet (oven exhaust for ovens without an external afterburner) is determined using Method 25 or 25A.

1.6 When it is difficult or infeasible to make gas measurements at the inlet to the control device, measuring capture efficiency with a gas-to-gas protocol (see § 63.3965(d)) which relies on direct measurement of the captured gas stream will also be difficult or infeasible. In these situations, capture efficiency measurement is more appropriately done with a procedure which does not rely on direct measurement of the captured gas stream.

1.7 Magnet wire ovens are relatively small compared to many other coating ovens. The exhaust rate from an oven is low and varies as the coating use rate and solvent loading rate change from job to job. The air balance in magnet wire ovens is critical to product quality. Magnet wire ovens must be operated under negative pressure to avoid smoke and odor in the workplace, and the exhaust rate must be sufficient to prevent over heating within the oven.

1.8 The liquid and gas measurements needed to determine capture efficiency and control device efficiency using these alternative procedures may be made simultaneously.

1.9 Magnet wire facilities may have many (e.g., 20 to 70 or more) individual coating lines each with its own capture and control system. With approval, representative capture efficiency and control device efficiency testing of one magnet wire coating machine out of a group of identical or very similar magnet wire coating machines may be performed rather than testing every individual magnet wire coating machine. The operating parameters must be established for each tested magnet wire coating machine during each capture efficiency test and each control device efficiency test. The operating parameters established for each tested magnet wire coating machine also serve as the operating parameters for untested or very similar magnet wire coating machines represented by a tested magnet wire coating machine.

2.0 Capture Efficiency.

2.1 If the capture system is a permanent total enclosure as described in § 63.3965(a), then its capture efficiency may be assumed to be 100 percent.

2.2 If the capture system is not a permanent total enclosure, then capture efficiency must be determined using the liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure in § 63.3965(c), or an alternative capture efficiency protocol (see § 63.3965(e)) which does not rely on direct measurement of the captured gas stream.

2.3 As an alternative to establishing and monitoring the capture efficiency operating parameters in § 63.3967(f), the monitoring described in either section 2.4 or 2.5, and the monitoring described in sections 2.6 and 2.7 may be used for magnet wire coating machines.

2.4 Each magnet wire oven must be equipped with an interlock mechanism which will stop or prohibit the application of coating either when any exhaust fan for that oven is not operating or when the oven experiences an over limit temperature condition.

2.5 Each magnet wire oven must be equipped with an alarm which will be activated either when any oven exhaust fan is not operating or when the oven experiences an over limit temperature condition.

2.6 If the interlock in 2.4 or the alarm in 2.5 is monitoring for over limit temperature conditions, then the temperature(s) that will trigger the interlock or the alarm must be included in the start-up, shutdown and malfunction plan and the interlock or alarm must be set to be activated when the oven reaches that temperature.

2.7 Once every 6 months, each magnet wire oven must be checked using a smoke stick or equivalent approach to confirm that the oven is operating at negative pressure compared to the surrounding atmosphere.

3.0 Control Device Efficiency.

3.1 Determine the weight fraction carbon content of the volatile portion of each coating, thinner, additive, or cleaning material used during each test run using either the procedure in section 3.2 or 3.3.

3.2 Following the procedures in Method 204F, distill a sample of each coating, thinner, additive, or cleaning material used during each test run to separate the volatile portion. Determine the weight fraction carbon content of each distillate using ASTM Method D5291–02, "Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants" (incorporated by reference, see § 63.14).

3.3 Analyze each coating, thinner, additive or cleaning material used during each test run using Method 311. For each volatile compound detected in the gas chromatographic analysis of each coating, thinner, additive, or cleaning material calculate the weight fraction of that whole compound in the coating, thinner, additive, or cleaning material. For each volatile compound detected in the gas chromatographic analysis of each coating, thinner, additive, or cleaning material calculate the weight fraction of the carbon in that compound in the coating, thinner, additive, or cleaning material. Calculate the weight fraction carbon content of each coating, thinner, additive, or cleaning material as the ratio of the sum of the carbon weight fractions divided by the sum of the whole compound weight fractions.

3.4 Determine the mass fraction of total volatile hydrocarbon (TVH_i) in each coating, thinner, additive, or cleaning material, i, used during each test run using Method 24. The mass fraction of total volatile hydrocarbon equals the weight fraction volatile matter (W_v in Method 24) minus the weight fraction water (W_w in Method 24), if any, present in the coating. The ASTM Method D6053–00, "Standard Test Method for Determination of Volatile Organic Compound (VOC) Content of Electrical Insulating Varnishes" (incorporated by reference, see § 63.14), may be used as an alternative to Method 24 for magnet wire enamels. The specimen size for testing magnet wire enamels with ASTM Method D6053–00 must be 2.0 ± 0.1 grams.

3.5 Determine the volume (VOL_i) or mass ($MASS_i$) of each coating, thinner, additive, or cleaning material, i, used during each test run.

3.6 Calculate the total volatile hydrocarbon input ($TVHC_{inlet}$) to the control device during each test run, as carbon, using Equation 1:

$$TVHC_{inlet} = \sum_{i=1}^{n} (TVH_i \times VOL_i \times D_i \times CD_i) \qquad \text{(Eq. 1)}$$

where:

TVH_i = Mass fraction of TVH in coating, thinner, additive, or cleaning material, i, used in the coating operation during the test run.

VOL_i = Volume of coating, thinner, additive, or cleaning material, i, used in the coating operation during the test run, liters.

D_i = Density of coating, thinner, additive, or cleaning material, i, used in the coating operation during the test run, kg per liter.

CD_i = Weight fraction carbon content of the distillate from coating, thinner, additive, or cleaning material, i, used in the coating operation during the test run, percent.

n = Number of coating, thinner, additive, and cleaning materials used in the coating operation during the test run.

3.7 If the mass, $MASS_i$, of each coating, solvent, additive, or cleaning material, i, used during the test run is measured directly then $MASS_i$ can be substituted for $VOL_i \times D_i$ in Equation 1 in section 3.6.

3.8 Determine the TVHC output ($TVHC_{outlet}$) from the control device, as carbon, during each test run using the methods in § 63.3966(a) and the procedure for determining M_{fo} in § 63.3966(d). $TVHC_{outlet}$ equals M_{fo} times the length of the test run in hours.

3.9 Determine the control device efficiency (DRE) for each test run using Equation 2:

$$DRE = \frac{(TVHC_{inlet} - TVHC_{outlet})}{TVHC_{inlet}} \times 100 \qquad \text{(Eq. 2)}$$

3.10 The efficiency of the control device is the average of the three individual test run values determined in section 3.9.

3.11 As an alternative to establishing and monitoring the destruction efficiency operating parameters for catalytic oxidizers in § 63.3967(b), the monitoring described in sections 3.12 and 3.13 may be used for magnet wire coating machines equipped with catalytic oxidizers.

3.12 During the performance test, you must monitor and record the temperature either just before or just after the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the performance test to calculate and record the average temperature either just before or just after the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer and for the catalytic oxidizers in identical or very similar magnet wire coating machines represented by the tested magnet wire coating machine.

3.13 You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s). The plan must address, at a minimum, the elements specified in sections 3.14 and 3.15, and the elements specified in either (a) section 3.16 or (b) sections 3.17 and 3.18.

3.14 You must conduct a monthly external inspection of each catalytic oxidizer system, including the burner assembly and fuel supply lines for problems and, as necessary, adjust the equipment to assure proper air-to-fuel mixtures.

3.15 You must conduct an annual internal inspection of each accessible catalyst bed to check for channeling, abrasion, and settling. If problems are found, you must replace the catalyst bed or take corrective action consistent with the manufacturer's recommendations. This provision does not apply to internal catalysts which cannot be accessed without disassembling the magnet wire oven.

3.16 You must take a sample of each catalyst bed and perform an analysis of the catalyst activity (*i.e.*, conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures. This sampling and analysis must be done within the time period shown in Table 1 below of the most recent of the last catalyst activity test or the last catalyst replacement. For example, if the warranty for the catalyst is 3 years and the catalyst was more recently replaced then the sampling and analysis must be done within the earlier of 26,280 operating hours or 5 calendar years of the last catalyst replacement. If the warranty for the catalyst is 3 years and the catalyst was more recently tested then the sampling and analysis must be done within the earlier of 13,140 operating hours or 3 calendar years of the last catalyst activity test. If problems are found during the catalyst activity test, you must replace the catalyst bed or take corrective action consistent with the manufacturer's recommendations.

TABLE 1.—CATALYST MONITORING REQUIREMENTS

If the catalyst was last (more recently) replaced and the warranty period is . . .	Then the time between catalyst replacement and the next catalyst activity test cannot exceed the earlier of . . .	And the catalyst was more recently tested, then the time between catalyst activity tests cannot exceed the earlier of . . .
1 year	8,760 operating hours or 5 calendar years	8,760 operating hours or 3 calendar years.
2 years	15,520 operating hours or 5 calendar years	8,760 operating hours or 3 calendar years.
3 years	26,280 operating hours or 5 calendar years	13,100 operating hours or 3 calendar years.
4 years	35,040 operating hours or 5 calendar years	17,520 operating hours or 3 calendar years.
5 or more years	43,800 operating hours or 5 calendar years	21,900 operating hours or 3 calendar years.

3.17 During the performance test, you must determine the average concentration of organic compounds as carbon in the magnet wire oven exhaust stack gases (C_c in Equation 1 in § 63.3966(d)) and the destruction efficiency of the catalytic oxidizer, and calculate the operating limit for oven exhaust stack gas concentration as follows. You must identify the highest organic HAP content coating used on this magnet wire coating machine or any identical or very similar magnet wire coating machines to which the same destruction efficiency test results will be applied. Calculate the percent emission reduction necessary to meet the magnet wire coating emission limit when using this coating. Calculate the average concentration of organic compounds as carbon in the magnet wire oven exhaust stack gases that would be equivalent to exactly meeting the magnet wire coating emissions limit when using the highest organic HAP content coating. The maximum operating limit for oven exhaust stack gas concentration equals 90 percent of this calculated concentration.

3.18 For each magnet wire coating machine equipped with a catalytic oxidizer you must perform an annual 10 minute test of the oven exhaust stack gases using EPA Method 25A. This test must be performed under steady state operating conditions similar to those at which the last destruction efficiency test for equipment of that type (either the specific magnet wire coating machine or an identical or very similar magnet wire coating machine) was conducted. If the average exhaust stack gas concentration during the annual test of a magnet wire coating machine equipped with a catalytic oxidizer is greater than the operating limit established in section 3.17 then that is a deviation from the operating limit for that catalytic oxidizer. If problems are found during the annual 10-minute test of the oven exhaust stack gases, you must replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations.

3.19 If a catalyst bed is replaced and the replacement catalyst is not of like or better kind and quality as the old catalyst, then you

must conduct a new performance test to determine destruction efficiency according to § 63.3966 and establish new operating limits for that catalytic oxidizer unless destruction efficiency test results and operating limits for an identical or very similar unit (including consideration of the replacement catalyst) are available and approved for use for the catalytic oxidizer with the replacement catalyst.

3.20 If a catalyst bed is replaced and the replacement catalyst is of like or better kind and quality as the old catalyst, then a new performance test to determine destruction efficiency is not required and you may continue to use the previously established operating limits for that catalytic oxidizer.

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Part II

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40 CFR Part 63
National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

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AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national emission standards for hazardous air pollutants (NESHAP) for the lime manufacturing source category. The lime manufacturing emission units regulated will include lime kilns, lime coolers, and various types of processed stone handling (PSH) operations. The EPA has identified the lime manufacturing industry as a major source of hazardous air pollutant (HAP) emissions including, but not limited to, hydrogen chloride (HCl), antimony, arsenic, beryllium, cadmium, chromium, lead, manganese, mercury, nickel, and selenium. Exposure to these substances has been demonstrated to cause adverse health effects such as cancer; irritation of the lung, skin, and mucus membranes; effects on the central nervous system; and kidney damage. The final NESHAP will require all major sources subject to the rule to meet HAP emission standards reflecting the application of maximum achievable control technology (MACT). Implementation of the final NESHAP will reduce non-volatile and semi-volatile metal HAP emissions from the lime manufacturing industry source category by approximately 6.5 tons per year (tpy) and will reduce emissions of particulate matter (PM) by 5,900 tpy.

EFFECTIVE DATE: January 5, 2004.

ADDRESSES: *Docket.* The EPA has established an official public docket for this action including both Docket ID No. OAR–2002–0052 and Docket ID No. A–95–41. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. All items may not be listed under both docket numbers, so interested parties should inspect both docket numbers to ensure that they have received all materials relevant to the final rule. The official public docket is available for public viewing at the EPA Docket Center (Air Docket), EPA West, Room B–102, 1301 Constitution Avenue, NW., Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742.

FOR FURTHER INFORMATION CONTACT: For further information concerning applicability and rule determinations, contact the appropriate State or local agency representative. For information concerning analyses performed in developing the final NESHAP, contact Keith Barnett, U.S. EPA, Emission Standards Division, Minerals and Inorganic Chemicals Group, C504–05, Research Triangle Park, North Carolina 27711, (919) 541–5605, *barnett.keith@epa.gov.*

SUPPLEMENTARY INFORMATION: *Docket.* The EPA has established an official public docket for this action including both Docket ID No. OAR–2002–0052 and Docket ID No. A–95–41. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. All items may not be listed under both docket numbers, so interested parties should inspect both docket numbers to ensure that they have received all materials relevant to the final rule. Although a part of the official public docket, the public docket does not include Confidential Business Information or other information whose disclosure is restricted by statute. The docket is a dynamic file because information is added throughout the rulemaking process. The docketing system is intended to allow members of the public and industries involved to easily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the proposed and promulgated standards and their preambles, the contents of the docket, excluding interagency review materials, will serve as the record in the case of judicial review. (See section 307(d)(7)(A) of the Clean Air Act (CAA).) The regulatory text and other materials related to this rulemaking are available for review in the docket, or copies may be mailed from the Air Docket on request by calling (202) 566–1742. A reasonable fee may be charged for copying docket materials. *Electronic Access.* You may access this **Federal Register** document electronically through the EPA Internet under the "**Federal Register**" listings at *http://www.epa.gov/fedrgstr/.* An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to access the index of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Once in the system, select "search," then key in the appropriate docket identification number.

Certain types of information will not be placed in the EPA dockets. Information claimed as confidential business information (CBI) and other information whose disclosure is restricted by statute, which is not included in the official public docket, will not be available for public viewing in EPA's electronic public docket. The EPA's policy is that copyrighted material will not be placed in EPA's electronic public docket but will be available only in printed, paper form in the official public docket. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility identified in this document.

Worldwide Web (WWW). In addition to being available in the docket, an electronic copy of today's final NESHAP will also be available on the WWW through the Technology Transfer Network (TTN). Following signature, a copy of this action will be posted on the TTN's policy and guidance page for final rules at *http://www.epa.gov/ttn/oarpg.* The TTN provides information and technology exchange in various areas of air pollution control. If more information regarding the TTN is needed, call the TTN HELP line at (919) 541–5384.

Regulated Entities. Categories and entities potentially regulated by this action include:

Category	NAICS	Examples of regulated entities
	32741	Commercial lime manufacturing plants.
	33111	Captive lime manufacturing plants at iron and steel mills.
	3314	Captive lime manufacturing plants at nonferrous metal production facilities.

Category	NAICS	Examples of regulated entities
	327125	Producers of dead-burned dolomite (Non-clay refractory manufacturing).

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your facility is regulated by this action, you should examine the applicability criteria in § 63.7081 of the final NESHAP. If you have any questions regarding the applicability of this action to a particular entity, consult the technical contact person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Judicial Review. The NESHAP for Lime Manufacturing were proposed in December 20, 2002 (67 FR 78046). This action announces EPA's final decisions on the NESHAP. Under section 307(b)(1) of the CAA, judicial review of the final NESHAP is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by March 5, 2004. Under section 307(d)(7)(B) of the CAA, only an objection to a rule or procedure raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under section 307(b)(2) of the CAA, the requirements established by the final NESHAP may not be challenged separately in any civil or criminal proceeding brought to enforce these requirements.

Outline. The information presented in this preamble is organized as follows:

I. Introduction
A. What Is the Purpose of the Final NESHAP?
B. What Is the Source of Authority for Development of NESHAP?
C. What Criteria Are Used in the Development of NESHAP?
D. How Was the Final NESHAP Developed?
E. What Are the Health Effects of the HAP Emitted From the Lime Manufacturing Industry?
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A. What Lime Manufacturing Plants Are Subject to the Final NESHAP?
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D. What Are the Emission Limits and Operating Limits?
E. When Must I Comply With the Final NESHAP?
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H. How Do I Determine if My Lime Manufacturing Plant Is a Major Source and Thus Subject to the Final NESHAP?
III. Summary of Changes Since Proposal
IV. Summary of Environmental, Energy and Economic Impacts
A. How Many Facilities Are Subject to the Final NESHAP?
B. What Are the Air Quality Impacts?
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V. Responses To Major Comments
VI. Statutory and Executive Order Reviews
A. Executive Order 12866, Regulatory Planning and Review
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D. Unfunded Mandates Reform Act
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H. Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use
I. National Technology Transfer and Advancement Act
J. Congressional Review Act

I. Introduction

A. What Is the Purpose of the Final NESHAP?

The purpose of the final NESHAP is to protect the public health by reducing emissions of HAP from lime manufacturing plants.

B. What Is the Source of Authority for Development of NESHAP?

Section 112(c) of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. We listed Lime Manufacturing in the category of major sources on July 16, 1992 (57 FR 31576). Major sources of HAP are those that have the potential to emit, considering controls, 10 tpy or more of any one HAP or 25 tpy or more of any combination of HAP.

C. What Criteria Are Used in the Development of NESHAP?

Section 112(d) of the CAA requires that we establish NESHAP for the control of HAP from both new and existing major sources. The CAA requires NESHAP to reflect the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any non-air quality health and environmental impact and energy requirements) the Administrator of EPA determines has been adequately demonstrated. This level of control is commonly referred to as MACT.

The CAA further provides that MACT standards must attain at least a minimum level of stringency, known as the MACT floor. The MACT floor is the minimum control level allowed for NESHAP and is defined under section 112(d)(3) of the CAA. In essence, the MACT floor ensures that the standard is set at a level that assures that all major sources achieve the level of control at least as stringent as that already achieved by the better-controlled and lower-emitting sources in each source category or subcategory. For new sources, the MACT floor cannot be less stringent than the emission control that is achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than standards for new sources, but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources in the category or subcategory (or the best-performing 5 sources for categories or subcategories with fewer than 30 sources) for which the Agency has emissions information.

In developing MACT, we also consider control options that are more stringent than the floor. We may establish standards more stringent than the floor based on the consideration of cost of achieving the emissions reductions, any health and environmental impacts, and energy requirements.

D. How Was the Final NESHAP Developed?

We used several resources to develop the final NESHAP, including questionnaire responses from industry, emissions test data, site surveys of lime manufacturing facilities, operating and new source review permits, permit applications, and comments on the proposed rule. We researched the relevant technical literature and existing State and Federal regulations and

consulted and met with representatives of the lime manufacturing industry, State and local representatives of air pollution agencies, Federal agency representatives (*e.g.*, United States Geological Survey) and emission control and emissions measurement device vendors in developing the final NESHAP. We also conducted an extensive emissions test program. Industry representatives provided emissions test data, arranged site surveys of lime manufacturing plants, participated in the emissions test program, reviewed draft questionnaires, provided information about their manufacturing processes and air pollution control technologies, and identified technical and regulatory issues. State representatives provided existing emissions test data, copies of permits and other information.

E. What Are the Health Effects of the HAP Emitted From the Lime Manufacturing Industry?

The HAP emitted by lime manufacturing facilities include, but are not limited to, HCl, antimony, arsenic, beryllium, cadmium, chromium, lead, manganese, mercury, nickel, and selenium. Exposure to these compounds has been demonstrated to cause adverse health effects when present in concentrations higher than those typically found in ambient air.

We have detailed data on each of the currently operating facilities for emissions of HCl. Human exposures to ambient levels of HCl resulting from lime manufacturing facilities' emissions were estimated by industry as part of the risk assessment they conducted for purposes of demonstrating, pursuant to section 112(d)(4) of the CAA, that HCl emissions from lime kilns are below the threshold level of adverse effects, within an ample margin of safety.

We do not have the type of current detailed data on each of the facilities that will be covered by the final NESHAP, and the people living around the facilities, that will be necessary to conduct an analysis to determine the actual population exposures to the metals HAP emitted from these facilities and the potential for resultant health effects. Therefore, we do not know the extent to which the adverse health effects described below occur in the populations surrounding these facilities. However, to the extent the adverse effects do occur, the final NESHAP will reduce emissions and subsequent exposures.

The HAP that will be controlled with the final NESHAP are associated with a variety of adverse health effects, including chronic health disorders (*e.g.*, irritation of the lung, skin, and mucus membranes; effects on the central nervous system; cancer; and damage to the kidneys), and acute health disorders (*e.g.*, lung irritation and congestion, alimentary effects such as nausea and vomiting, and effects on the kidney and central nervous system). We have classified three of the HAP—arsenic, chromium, and nickel—as human carcinogens and three others—beryllium, cadmium, and lead—as probable human carcinogens.

F. What Are Some Lime Manufacturing Industry Characteristics?

There are approximately 70 commercial and 40 captive lime manufacturing plants in the U.S., not including captive lime manufacturing operations at pulp and paper production facilities. About 30 of the captive plants in the U.S. produce lime that is used in the beet sugar manufacturing process, but captive lime manufacturing plants are also found at steel, other metals, and magnesia production facilities. Lime is produced in about 35 States and Puerto Rico by about 47 companies, which include commercial and captive producers (except for lime manufacturing plants at pulp and paper production facilities), and those plants which produce lime hydrate only.

G. What Are the Processes and Their Emissions at a Lime Manufacturing Plant?

There are many synonyms for lime, the main ones being quicklime and its chemical name, calcium oxide. High calcium lime consists primarily of calcium oxide, and dolomitic lime consists of both calcium and magnesium oxides. Lime is produced via the calcination of high calcium limestone (calcium carbonate) or other highly calcareous materials such as aragonite, chalk, coral, marble, and shell; or via the calcination of dolomitic limestone. Calcination occurs in a high temperature furnace called a kiln, where lime is produced by heating the limestone to about 2000° F, driving off carbon dioxide in the process. Dead-burned dolomite is a type of dolomitic lime produced to obtain refractory characteristics in the lime.

The kiln is the heart of the lime manufacturing plant, where various fossil fuels (such as coal, petroleum coke, natural gas, and fuel oil) are combusted to produce the heat needed for calcination. There are five different types of kilns: rotary, vertical, double-shaft vertical, rotary hearth, and fluidized bed. The most popular is the rotary kiln, but the double-shaft vertical kiln is an emerging new kiln technology gaining in acceptance because of its energy efficiency. Rotary kilns may also have preheaters associated with them to improve energy efficiency. As discussed further in this preamble, additional energy efficiency is obtained by routing exhaust from the lime cooler to the kiln, a common practice. Emissions from lime kilns include, but are not limited to, metallic HAP, HCl, PM, sulfur dioxide, nitrogen oxides, and carbon dioxide. These emissions predominately originate from compounds in the limestone feed material and fuels (*e.g.*, metals, sulfur, chlorine) and are formed from the combustion of fuels and the heating of feed material in the kiln.

All types of kilns use external equipment to cool the lime product, except vertical (including double-shaft) kilns, where the cooling zone is part of the kiln. Ambient air is most often used to cool the lime (although a few use water as the heat transfer medium), and typically all of the heated air stream exiting the cooler goes to the kiln to be used as combustion air for the kiln. The exception to this is the grate cooler, where more airflow is generated than is needed for kiln combustion, and consequently a portion (about 40 percent) of the grate cooler exhaust is vented to the atmosphere. We estimate that there are about five to ten kilns in the U.S. that use grate coolers. The emissions from grate coolers include the lime dust (PM) and the trace metallic HAP found in the lime dust.

Lime manufacturing plants may also produce hydrated lime (also called calcium hydroxide) from some of the calcium oxide (or dolomitic lime) produced. Hydrated lime is produced in a hydrator via the chemical reaction of calcium oxide (or magnesium oxide) and water. The hydration process is exothermic, and part of the water in the reaction chamber is converted to steam. A wet scrubber is integrated with the hydrator to capture the lime (calcium oxide and calcium hydroxide) particles carried in the gas steam, with the scrubber water recycled back to the hydration chamber. The emissions from the hydrator are the PM comprised of lime and hydrated lime.

Operations that prepare the feed materials and fuels for the kiln and process the lime product for shipment or further on-site use are found throughout a lime manufacturing plant. The equipment includes grinding mills, crushers, storage bins, conveying systems (such as bucket elevator, belt conveyors), bagging systems, bulk loading or unloading systems, and screening operations. The emissions from these operations include limestone

and lime dust (PM) and the trace metallic HAP found in the dust.

II. Summary of the Final NESHAP

A. What Lime Manufacturing Plants Are Subject to the Final NESHAP?

The final NESHAP will regulate HAP emissions from all new and existing lime manufacturing plants that are major sources, co-located with major sources, or are part of major sources. However, lime manufacturing plants located at pulp and paper mills or at beet sugar factories are not subject to the final NESHAP. Other captive lime manufacturing plants, such as (but not limited to) those at steel mills and magnesia production facilities, will be subject to the final NESHAP. See 67 FR 78053 explaining the basis for these determinations. We define a lime manufacturing plant as any plant which uses a lime kiln to produce lime product from limestone or other calcareous material by calcination. However, we specifically exclude lime kilns that use only calcium carbonate waste sludge from water softening processes as the feedstock. Lime product means the product of the lime kiln calcination process including calcitic lime, dolomitic lime, and dead-burned dolomite.

B. How Do We Define the Affected Source and What Emissions Units Are Included?

The final NESHAP defines the affected source as follows: each lime kiln and its associated cooler, each individual PSH system. The individual types of emission units in a PSH system are conveying system transfer points, bulk loading or unloading systems, screening operations, bucket elevators, and belt conveyors—if they follow the processed stone storage bin or storage pile in the sequence of PSH operations. The materials processing operations (MPO) associated with lime products (such as quicklime and hydrated lime), lime kiln dust handling, quarry or mining operations, limestone sizing operations, and fuels are not subject to today's final NESHAP. Processed stone handling operations are further distinguished in the final NESHAP as follows: (1) Whether their emissions are vented through a stack, (2) whether their emissions are fugitive emissions, (3) whether their emissions are vented through a stack with some fugitive emissions from the partial enclosure, and/or (4) whether the source is enclosed in a building. Finally, lime hydrators and cooler nuisance dust collectors are not included under the definition of affected source under the final NESHAP.

C. What Pollutants Are Regulated by the Final NESHAP?

The final NESHAP establishes PM emission limits for lime kilns, coolers, and PSH operations with stacks. Particulate matter will be measured solely as a surrogate for the non-volatile and semi-volatile metal HAP. (Particulate matter of course is not itself a HAP, but is a typical and permissible surrogate for HAP metals. See *National Lime Ass'n* v. *EPA*, 233 F. 3d 625, 637–40 (D.C. Cir., 2000). The final NESHAP also regulate opacity or visible emissions from most of the PSH operations, with opacity also serving as a surrogate for non-volatile and semi-volatile HAP metals.

D. What Are the Emission Limits and Operating Limits?

Emission Limits

The PM emission limit for the existing kilns and coolers is 0.12 pounds PM per ton of stone feed (lb/tsf) for kilns using dry air pollution control systems prior to January 5, 2004. Existing kilns that have installed and operating wet scrubbers prior to January 5, 2004 must meet an emission limit of 0.60 lb/tsf. Kilns which meet the criteria for the 0.60 lb/tsf emission limit must continue to use a wet scrubber for PM emission control in order to be eligible to meet the 0.60 lb/tsf limit. If at any time such a kiln switches to a dry control, they would become subject to the 0.12 lb/tsf PM emission limit, regardless of the type of control device used in the future. The PM emission limit for all new kilns and lime coolers is 0.10 lb/tsf. As a compliance option, these emission limits (except for the 0.60 lb/tsf limit) may be applied to the combined emissions of all the kilns and coolers (assuming the cooler(s) has a separate exhaust vent to the atmosphere) at the lime manufacturing plant. In other words, the sum of the PM emissions from all of the kilns and coolers at the lime manufacturing plant, divided by the sum of the production rates of the kilns at the existing lime manufacturing plant, will be used to determine compliance with the appropriate emission limit for kilns and coolers. If the lime manufacturing plant has both new and existing kilns and coolers, then the emission limit will be an average of the existing and new kiln PM emissions limits, weighted by the annual actual production rates of the individual kilns, except that no new kiln may exceed the PM emission level of 0.10 lb/tsf. Kilns that are required to meet a 0.60 lb/tsf PM emission limit must meet that limit individually, and may not be included in any averaging calculations.

Emissions from PSH operations that are vented through a stack will be subject to a limit of 0.05 grams PM per dry standard cubic meter (g/dscm) PM and 7 percent opacity. Stack emissions from PSH operations that are controlled by wet scrubbers are subject to the 0.05 g/dscm but not subject to the opacity limit. Fugitive emissions from PSH operations are subject to a 10 percent opacity limit.

For each building enclosing any PSH operation, each of the affected PSH operations in the building must comply individually with the applicable PM and opacity emission limitations discussed above. Otherwise, there must be no visible emissions from the building, except from a vent, and the building's vent emissions must not exceed 0.05 g/dscm and 7 percent opacity. For each fabric filter (FF) that controls emissions from only an individual, enclosed processed stone storage bin, the opacity must not exceed 7 percent. For each set of multiple processed stone storage bins with combined stack emissions, emissions must not exceed 0.05 g/dscm and 7 percent opacity. Because the opacity requirement for PSH operations is used as an indicator that a control device is functioning properly, it is not appropriate, or meaningful, to average the opacity readings from multiple PSH operations. The final rule does not allow averaging of PSH operations.

We are not regulating HCl emissions from lime kilns in the final NESHAP. Under the authority of section 112(d)(4) of the CAA, we have determined that no further control is necessary because HCl is a "health threshold pollutant," and HCl levels emitted from lime kilns are below the threshold value within an ample margin of safety. See generally, 67 FR 78054–057. As explained there, the risk analysis sought to assure that emissions from every source in the category result in exposures less than the threshold level even for an individual exposed at the upper end of the exposure distribution. The upper end of the exposure distribution is calculated using the "high end exposure estimate," defined as a plausible estimate of individual exposure for those persons at the upper end of the exposure distribution, conceptually above the 90th percentile, but not higher than the individual in the population who has the highest exposure. We believe that assuring protection to persons at the upper end of the exposure distribution is consistent with

the "ample margin of safety" requirement in section 112(d)(4).

In the proposed rule, we published the results of the risk analysis on which we based this decision. More information on the risk analysis may be found in the published proposed rule (67 FR 78054–78057) and in the docket. We received only one comment on our risk analysis.

We also are not establishing a limit for mercury emissions from lime kilns. The only control technique would reflect control of the raw materials and/or fossil fuels. This control is not duplicable or replicable. We also determined that an emission limit for mercury based on a beyond-the-MACT-floor option is not justified after consideration of the cost, energy, and non-air environmental impacts. See 67 FR 78057 for additional discussion. We received no adverse comments on this aspect of the rule as proposed.

Operating Limits

For lime kilns that use a wet scrubber PM control device, you are required to maintain the 3-hour block average gas stream pressure drop across the scrubber and the 3-hour block average scrubber liquid flow rate equal to or above the levels for the parameters that were established during the PM performance test.

For kilns using a FF or electrostatic precipitator (ESP) PM control device, you must monitor opacity (as an operating limit) with a continuous opacity monitoring system (COMS). You are required to install and operate the COMS in accordance with Performance Specification 1 (PS–1), 40 CFR part 60, Appendix B, and maintain the opacity level of the lime kiln exhaust at or below 15 percent for each 6-minute block period. Facilities that installed COMS on or before February 6, 2001, should continue to meet the requirements in effect in 40 CFR part 60, Appendix B, at the time of COMS installation unless specifically required to re-certify the COMS by their permitting authority.

As an alternative to a COMS, lime kilns that use ESP or FF PM controls can elect to monitor PM levels with a PM detector that meets the requirements in § 63.7113(e) of the final rule. You must maintain and operate the ESP or FF such that the PM detector alarm is not activated, and the alarm condition does not exist for more than 5 percent of the operating time in each 6-month period.

For lime kilns that use a FF PM control device, you may install, maintain and operate a bag leak detection system (BLDS) as an alternative to a COMS or PM detector. The FF must be operated and maintained so that the BLDS alarm is not activated, and an alarm condition does not exist for more than 5 percent of the operating time in each 6-month period. The BLDS must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

For PSH operation emission points subject to a PM emission limit and controlled by a wet scrubber, you are required to collect and record the exhaust gas stream pressure drop across the scrubber and the scrubber liquid flow rate during the PM performance test. You are required to continuously maintain the 3-hour average gas stream pressure drop across the scrubber and the 3-hour average scrubber liquid flow rate equal to or above the levels for the parameters that were established during the PM performance test.

You are required to prepare a written operations, maintenance, and monitoring (OM&M) plan to cover all affected emission units. The plan must include procedures for proper operation and maintenance of each emission unit and its air pollution control device(s); procedures for monitoring and proper operation of monitoring systems in order to meet the emission limits and operating limits; standard procedures for the use of a BLDS and PM detector; and corrective actions to be taken when there is either a deviation from operating limits, or when PM detector or BLDS alarms indicate corrective action is necessary.

E. When Must I Comply With the Final NESHAP?

The compliance date for existing affected sources is January 5, 2004. (Three years may be needed to install new, or retrofit existing, air pollution control equipment.) A new affected source (*i.e.*, a kiln or PSH system for which construction or reconstruction commenced after December 20, 2002) must be in compliance upon initial startup or January 5, 2007, whichever is later.

F. How Do I Demonstrate Initial Compliance With the Final NESHAP?

Kiln and Coolers

For the kiln and cooler PM emission limit, you must conduct a PM emissions test on the exhaust of each kiln at the lime manufacturing plant and measure the stone feed rate to each kiln during the test. Each individual kiln must meet their applicable PM emission limit (0.10, 0.12, or 0.60 lb/tsf). Alternately, kilns subject to the 0.10 (new kilns) or 0.12 (existing kilns) lb/tsf PM emission limits are in compliance if the sum of the emissions from these kilns at the lime manufacturing plant, divided by the sum of the stone feed rates entering each of these kilns, do not exceed the applicable PM emission limit, or if the facility has both new and existing kilns, it must not exceed an average of the 0.12 and 0.10 lb/tsf PM emission limits weighted by individual kiln throughput. Kilns subject to the 0.60 lb/tsf PM emission limit can not be included in any averaging scheme. If you have a lime cooler(s) that has a separate exhaust to the atmosphere, you must conduct a PM test on the cooler's exhaust concurrently with the kiln PM test, and add the cooler emissions to the appropriate kiln emissions. For kilns with a wet scrubber, you must collect and record the applicable operating parameters during the PM performance test and then establish the operating limits based on those data.

Processed Stone Handling Operations

For PSH operations with stacks that are subject to PM emission limits, you are required to conduct a PM emissions test on each stack exhaust, and the stack emissions must not exceed the emission limit of 0.05 g/dscm. For PSH operations with stack opacity limits, you are required to conduct a 3-hour test on the exhaust in accordance with Method 9 in Appendix B of 40 CFR part 60, and each of the 30 consecutive, 6-minute opacity averages must not exceed 7 percent. The PSH operations controlled using wet scrubbers do not have an opacity limit, but you are required to collect and record the wet scrubber operating parameters during the PM performance test and then establish the applicable operating limits based on those data.

For PSH operations with fugitive emissions, you are required to conduct a Method 9 test, and each of the consecutive 6-minute opacity averages must not exceed the applicable opacity limit. These Method 9 tests are for 3 hours, but the test duration may be reduced to 1 hour if certain criteria are met. Lastly, Method 9 tests or visible emissions checks may be performed on PSH operations inside of buildings, but additional lighting, improved access to equipment, and temporary installation of contrasting backgrounds may be needed. For additional guidance, see page 116 of the "Regulatory and Inspection Manual for Nonmetallic Minerals Processing Plants," EPA report 305–B–97–008, November 1997.

G. How Do I Continuously or Periodically Demonstrate Compliance With the Final NESHAP?

General

You are required to install, operate, and maintain each required continuous parameter monitoring system (CPMS) such that the CPMS completes a minimum of one cycle of operation for each successive 15-minute period. The CPMS will be required to have valid data from at least three equally spaced data values for that hour during periods that it is not out of control according to your OM&M plan. To calculate the block average for each 3-hour averaging period, you must have at least two of three of the hourly averages for that period using only hourly average values that are based on valid data (*i.e.*, not from out-of-control periods). When required, the 3-hour block average value for each operating parameter must be calculated as the average of each set of three successive 1-hour average values.

You are required to develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the general provisions in 40 CFR 63.6(e)(3).

Kilns and Coolers

For kilns controlled by a wet scrubber, you are required to maintain the 3-hour block average of the exhaust gas stream pressure drop across the wet scrubber greater than, or equal to, the pressure drop operating limit established during the most recent PM performance test. You are also required to maintain the 3-hour block average of the scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the most recent performance test.

Sources opting to monitor PM emissions from an ESP with a PM detector in lieu of monitoring opacity are required to maintain and operate the ESP such that the PM detector alarm is not activated, and alarm condition does not exist for more than 5 percent of the operating time in a 6-month period. Each time the alarm sounds and the owner or operator initiates corrective actions (per the OM&M plan) within 1 hour of the alarm, 1 hour of alarm time will be counted. If inspection of the ESP demonstrates that no corrective actions are necessary, no alarm time will be counted. The sensor on the PM detection system must provide an output of relative PM emissions. The PM detection system must have an alarm that will sound automatically when it detects an increase in relative PM emissions greater than a preset level. The PM detection systems are required to be installed, operated, adjusted, and maintained according to the manufacturer's written specifications and recommendations.

Sources opting to monitor PM emissions from a FF with a BLDS or PM detector in lieu of monitoring opacity are required to maintain and operate the FF such that the BLDS or PM detector alarm is not activated, and alarm condition does not exist for more than 5 percent of the operating time in a 6-month period. Each time the alarm sounds and the owner or operator initiates corrective actions (per the OM&M plan) within 1 hour of the alarm, 1 hour of alarm time will be counted. If inspection of the FF demonstrates that no corrective actions are necessary, no alarm time will be counted. The sensor on the BLDS is required to provide an output of relative PM emissions. The BLDS is required to have an alarm that will sound automatically when it detects an increase in relative PM emissions greater than a preset level. The BLDS is required to be installed, operated, adjusted, and maintained in accordance with the manufacturer's written specifications and recommendations.

Standard operating procedures for the BLDS and PM detection systems must be incorporated into the OM&M plan. We recommend that for electrodynamic (or other similar technology) BLDS, the standard operating procedures include concepts from EPA's "Fabric Filter Bag Leak Detection Guidance" (EPA–454/R–98–015, September 1997). This document may be found on the world wide web at *www.epa.gov/ttn/emc.*

For kilns and lime coolers monitored with a COMS, you are required to maintain each 6-minute block average opacity level at or below 15 percent opacity. For COMS installed after February 6, 2001, the COMS must be installed and operated in accordance with PS–1, 40 CFR part 60, Appendix B. Facilities that installed COMS on or before February 6, 2001, should continue to meet the requirements in effect in 40 CFR part 60, Appendix B, at the time of COMS installation unless specifically required to re-certify the COMS by their permitting authority.

Processed Stone Handling Operations

For stack emissions from PSH operations which are controlled by a wet scrubber, you are required to maintain the 3-hour average exhaust gas stream pressure drop across the wet scrubber greater than, or equal to, the pressure drop operating limit established during the most recent PM performance test. You are required to also maintain the 3-hour average scrubbing liquid flow rate greater than, or equal to, the flow rate operating limit established during the most recent PM performance test.

For PSH operations subject to opacity limitations that do not use a wet scrubber control device, you are required to periodically demonstrate compliance as follows. You must conduct a monthly 1-minute visible emissions check of each emissions unit in the affected source. If no visible emissions are observed in six consecutive monthly tests for any emission unit, you may decrease the frequency of testing from monthly to semiannually for that emissions unit. If visible emissions are observed during any semiannual test, you must resume testing of that emissions unit on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests. If no visible emissions are observed during the semiannual test for any emissions unit, you may decrease the frequency of testing from semiannually to annually for that emissions unit. If visible emissions are observed during any annual test, you must resume visible emissions testing of that emissions unit on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

If visible emissions are observed during any visible emissions check, you must conduct a 6-minute test of opacity in accordance with Method 9 of appendix A to part 60 of this chapter. The Method 9 test is required to begin within 1 hour of any observation of visible emissions, and the 6-minute opacity reading must not exceed the applicable opacity limit.

H. How Do I Determine if My Lime Manufacturing Plant Is a Major Source and Thus Subject to the Final NESHAP?

The final NESHAP apply to lime manufacturing plants that are major sources, co-located with major sources, or are part of major sources. Each lime facility owner/operator must determine whether their plant is a major or area source since this determines whether the lime manufacturing plant is an affected source under the final NESHAP. Section 112 of the CAA defines a major source as a "stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons/yr or more of any HAP or 25 tons/yr or more of any combination of HAP." This definition requires evaluation of the facility's potential to emit all HAP from

all emission sources in making a determination of whether the source is major or area. However, based on our data analysis, HCl is most likely the HAP that will account for the largest quantity of HAP emissions from a lime manufacturing plant. Although lime manufacturing plants emit HAP metals from most of the emission units at the plant site and organic HAP from the kiln, our analysis indicates that most likely the metal and organic HAP emissions will each be well below the 10 tpy criteria.

We are requiring that all lime manufacturing facilities potentially subject to the final NESHAP demonstrate, with an emissions test, that they emit less than 10 tpy of HCl if they wish to claim area source status. We are allowing three HCl test methods to be used. These are EPA Method 320 or 321 in Appendix A to 40 CFR part 63, or ASTM Method D 6735–01. If ASTM Method D 6735–01 is used, we require that the paired-train option in section 11.2.6 and the post-test analyte spike option in section 11.2.7 be used.

III. Summary of Changes Since Proposal

We proposed a PM standard (as a surrogate for non-mercury HAP metals) of 0.12 lb/tsf reflecting the performance of dry pollution control systems (baghouses). We also solicited comment on having a separate PM standard of 0.60 lb/tsf for kilns controlled with wet scrubbers. In the final rule, we have decided to adopt these two different standards for PM emissions from existing lime kilns. We are also indicating that existing kilns subject to the 0.60 lb/tsf PM emission limit are not to be included in any averaging scheme for demonstrating compliance with a PM standard.

In the proposed NESHAP, we required facilities using wet scrubbers to monitor scrubber pressure drop and liquid flow rate. We have written the final NESHAP to explicitly state that alternative monitoring procedures are allowed under the procedures described in 40 CFR 63.8(f). However, we do not delegate that authority.

The proposed NESHAP stated that you must install, operate, and maintain COMS as required by 40 CFR part 63, subpart A, General Provisions, and according to PS–1 in Appendix B to 40 CFR part 60. We have stated in the rule that COMS installed, relocated, or substantially refurbished after February 6, 2001, must meet the requirements of PS–1 as revised on August 10, 2000. Any COMS installed on or before February 6, 2001, should continue to meet the requirements in effect at the time of installation unless specifically required by the local regulatory agency to re-certify the COMS in question.

In the proposed NESHAP, we required you to monitor the performance of FF with either a COMS or a PM detector. In the final NESHAP, we are allowing existing facilities to monitor FF performance using daily EPA Method 9, in Appendix A to 40 CFR part 60, visible emission readings if the facility has a positive pressure FF with multiple stacks, or if it is infeasible to install a COMS in accordance with PS–1 in Appendix B to 40 CFR part 60.

In the proposed NESHAP, we allowed three alternatives for monitoring ESP performance. These were a COMS, a PM detector, or monitoring ESP voltage and current. In the final NESHAP, we are allowing only two alternatives, a COMS or a PM detector. There are no requirements to establish ESP voltage and current operating limits.

In the proposed NESHAP, we specified that EPA Method 9 in Appendix A to 40 CFR part 60 should be used to determine opacity from fugitive emissions. We have retained this requirement in the final NESHAP, but we have added additional requirements on how EPA method 9 in Appendix A to 40 CFR part 60 should be implemented to determine fugitive visible emissions. This language was taken directly from 40 CFR 60.675(c)(1).

In the proposed NESHAP, § 63.7120(b) could be interpreted to imply that PSH operations must be continuously monitored. In the final NESHAP, PSH operations are subject to monthly (not continuous) visible emission testing.

In the proposed NESHAP, we required that lime kiln emission testing be conducted at the highest production level reasonably expected to occur. In the final NESHAP, we require that lime kilns be tested under representative operating conditions.

In the proposed NESHAP, we required reporting of deviations from operating, visible emissions, and opacity limits, including those deviations that occur during periods of startup, shutdown, or malfunction. In the final NESHAP, we require that reports are to be made in accordance with 40 CFR 63.10(d).

In the proposed NESHAP, we required testing of all kilns in order to claim area source status. In the final NESHAP, we have included a provision that allows the permitting authority to determine if idled kilns must be tested, and also to determine whether all kilns that use identical feed materials, fuels, and emission controls must still all be tested.

In the proposed NESHAP, the raw material storage bin was the first emission unit in the sequence of lime manufacturing that was part of the affected source. Materials processing operations between the storage bin and the kiln were also covered. In the final NESHAP, material stockpiles prior to the processed stone storage bin are not covered, open processed stone piles are not covered, storage bins are defined as manmade enclosures, and use the term processed stone handling operations instead of materials processing operations.

In the proposed NESHAP, we included as an affected source lime kilns that produced lime product from any calcareous substance. In the final NESHAP, we have excluded lime kilns that produce lime from water softening sludge that contain calcium carbonate.

In the proposed NESHAP, we excluded materials handling operations associated with lime product. In the final NESHAP, we have specifically stated that nuisance dust collectors are part of lime product handling systems and, therefore, are not part of the affected source.

In the proposed NESHAP, we required that facilities use rolling 3-hour averages to show compliance with wet scrubber operating limits. We noted that in the proposed rule, we did not clearly state how to calculate the rolling average. Based on compliance requirements of other NESHAP, we determined that a rolling average was not necessary to ensure compliance, but did increase the complexity of the average calculation and recordkeeping process. Therefore, in the final NESHAP, we require block 3-hour averages instead of rolling 3-hour averages, which is consistent with the requirement to use block averaging required for ESP that choose to monitor using COM.

In the proposed NESHAP, we allowed averaging among all lime kilns and coolers at existing sources, and all new lime kilns and coolers at new sources, but did not allow averaging of existing and new lime kilns and coolers together. In addition, the averaging provisions and equations applied whether or not the facility desired to average. We have written the final NESHAP to state that each individual new lime kiln and its associated cooler must meet a 0.10 lb/tsf PM emission limit, and each individual existing lime kilns and its associated cooler must meet a 0.12 lb/tsf PM emission limit. Averaging is optional, so that if each individual kiln meets its emission limit, averaging is not required. The exception to this is for existing kilns which are subject to the

0.60 lb/tsf PM emission limit. These kilns are not eligible for averaging.

If the lime manufacturing plant has multiple kilns and wants to average kilns together to meet the PM emission limit, this is allowed (with one limitation discussed below, and the exception for kilns subject to the 0.60 lb/tsf PM emission limit noted above) and the averaging equations in the final rule must be used. However, in no case may a new kiln exceed a 0.10 lb/tsf emission limit. Where there are both new and existing lime kilns at a facility, then the PM emission limit will be an average of the existing and new kiln PM emissions limits, weighted by the annual actual production rates of the individual kilns. We believe that allowing averaging is appropriate here because of the identity of the units (kilns and coolers in all cases), and the emissions (same HAP in same type of emissions, since all emissions result from kilns and coolers). Averaged emissions under these circumstances would, thus, still reflect MACT for the affected source. The averaging provisions are included in the final NESHAP as a result of the recommendations of the Small Business Advocacy Panel convened as required by section 609(b) of the Regulatory Flexibility Act (RFA) and improves the compliance flexibility options for small businesses, which is the intent of the RFA.

The only limitation we are requiring on averaging is that any new kiln, when considered alone, must meet the 0.10 lb/tsf emission limit. We do not consider this to be a significant limitation because the most likely averaging scenario involving new and existing kilns will be a facility that erects a new kiln that is designed to meet a level below the 0.10 lb/tsf emission limit. It is also appropriate to prevent a situation where a new kiln could be erected that did not perform at the same level as the best controlled facility.

We are not allowing kilns equipped with wet scrubbers for PM emissions control to be eligible for averaging. As explained more fully below, we are establishing a separate PM emissions standard for kilns equipped with wet scrubbers to avoid potentially forcing wet scrubbers to be replaced with dry systems, which could lead to less control of SO_2 emissions and atmospheric formation of sulfate PM (a type of PM2.5). These considerations, however, do not justify allowing averaging between kilns with such large differences in PM emission limits. Our intent in allowing averaging was to avoid the situation where some kilns at a facility were slightly above the 0.12 lb/tsf emission limit would have to completely replace existing PM controls for only a slight reduction on overall PM emissions. If we were to allow averaging where some of the kilns only have to meet a 0.60 lb/tsf emission limit, it could result in some kilns being allowed to emit PM at levels significantly above the levels that have been determined to be best control.

We are not allowing averaging for other emission sources. Processed stone handling operations that exhaust through stacks have an emission limit of 0.50 g/dscm. We did not see an advantage to allowing averaging for these operations because they are small compared to the PM emissions for the lime kilns. The other emission limits in the final rule are for PSH operations, and the limits are expressed as opacity. As stated previously, averaging opacity limits is not appropriate. No commenter requested averaging for PSH operations.

In the proposed rule, we defined the affected source as the collection of all of the lime kilns, lime coolers and materials processing operations. We noted that this language could be misinterpreted to imply that a new lime kiln erected at an existing lime manufacturing plant would be considered existing, not new. In the final NESHAP, we have written the language in 40 CFR 63.7082 to make our intent clear. New lime kilns, whether or not they are built at an existing lime manufacturing plant, must meet the PM emission limits for new sources.

IV. Summary of Environmental, Energy and Economic Impacts

We considered water, solid waste, and energy impacts as part of our so-called beyond-the-floor analysis pursuant to section 112(d)(2) of the CAA, which requires consideration of "non-air quality health and environmental impacts and energy requirements," as well as "the cost of achieving such emissions reduction," in deciding whether or not to adopt standards more stringent than the MACT floor. The following section summarize portions of these analyses.

A. How Many Facilities Are Subject to the Final NESHAP?

There are approximately 110 lime manufacturing plants in the U.S., not including lime production facilities at pulp and paper mills. About 30 of these 110 plants are located at beet sugar manufacturing facilities which are not subject to the final rule. We estimate that 70 percent of the remaining 80 lime manufacturing plants will be major sources co-located with major sources, or part of major sources, and, thus, about 56 lime manufacturing plants will be subject to the final rule. The other 24 facilities will incur a small, one-time cost for HCl testing to demonstrate that they are area sources.

B. What Are the Air Quality Impacts?

We estimate that all sources (not including lime manufacturing plants at beet sugar factories) in the lime manufacturing source category collectively emit approximately 10,720 tpy of HAP. These HAP estimates include emissions of HCl and HAP metals from existing sources and projected new sources over the next 5 years. We estimate that the final NESHAP will reduce HAP metals emissions from the lime manufacturing source category by about 3.6 tpy, and will reduce HCl emissions by about 235 tpy. In addition, we estimate that the final NESHAP will reduce PM emissions by about 3,880 tpy from a baseline level of 16,730 tpy, and the final NESHAP will reduce SO_2 emissions by about 6,150 tpy from a baseline of 34,650 tpy. The roughly 14 percent decrease in HCl and SO_2 emissions is the projected result of uncontrolled sources installing baghouses to comply with the final PM standards.

Table 1 to this preamble summarizes the baseline emissions and emissions reductions.

TABLE 1.—TOTAL NATIONAL BASELINE EMISSIONS AND EMISSIONS REDUCTIONS FOR BOTH NEW AND EXISTING LIME MANUFACTURING PLANTS

Emissions	PM (tpy)	HAP metals (tpy)	HCl (tpy)	SO_2 (tpy)
Baseline emissions—existing sources	13,588	13.5	8,541	30,783
Baseline emissions—new sources	3,140	2.8	2,161	3,868

TABLE 1.—TOTAL NATIONAL BASELINE EMISSIONS AND EMISSIONS REDUCTIONS FOR BOTH NEW AND EXISTING LIME MANUFACTURING PLANTS—Continued

Emissions	PM (tpy)	HAP metals (tpy)	HCl (tpy)	SO_2 (tpy)
Total baseline emissions	16,728	16.3	10,702	34,651
Emissions reductions—existing sources	3,786	3.4	235	6,147
Emissions reductions—new sources	96	0.2	0	0
Total emissions reductions	3,882	3.6	235	6,147

The final NESHAP will also result in some offsetting emissions increases. These increases are due to additional emissions that will occur at electricity generating facilities as a result of the need to generate the electricity required to operate the control equipment, and power the fans necessary to overcome control device pressure drop. We estimate these emission increases to be 0.3 tpy for PM, 12.4 tpy for sulfur dioxide (SO_2), and 6.1 tpy for nitrogen oxides (NO_X). It should be noted that these emissions increases are insignificant when compared to the emissions decreases that result from the final NESHAP.

C. What Are the Water Impacts?

We expect overall water consumption for existing sources to increase by about 1,250 million gallons per year from current levels as a result of the final rule. This estimate is based on the assumption that sources will upgrade or replace about 30 percent of the existing wet scrubbers to comply with the PM standards, and these new or upgraded scrubbers will require a higher water flow rate that the scrubbers currently installed. For new sources, we expect no additional water consumption, as we do not expect new sources to install wet scrubbers for PM control.

D. What Are the Solid Waste Impacts?

As a result of the final rule, solid waste will be generated as additional PM is collected in complying with the PM standards. We estimate that about 3,880 tpy of additional solid waste will be generated as a result of today's final rule. This estimate does not include consideration that some of this will most likely be recycled directly to the lime kiln as feedstock or sold as byproduct material (agricultural lime).

E. What Are the Energy Impacts?

We expect electricity demand from existing sources to increase by about 4.0 million kilowatt-hours/yr (kWh/yr) as a result of the final rule. This estimate is based on the assumption that sources will replace existing wet scrubbers with new, more efficient venturi wet scrubbers (that require more electricity). For new sources, we expect an increase in electricity usage of about 0.1 million kWh/yr as a result of the final rule. This electricity demand is associated with complying with the PM standards for new sources.

F. What Are the Cost Impacts?

The estimated total national capital cost of today's final rule is $28.2 million. This capital cost applies to projected new and existing sources and includes the cost to purchase and install emissions control equipment (*e.g.*, existing PM control equipment upgrades); monitoring equipment; the costs of initial performance tests; and emissions tests to measure HCl to determine whether a source is a major source, and, hence subject to the final standards.

The estimated annualized costs of the final NESHAP are $18.0 million. The annualized costs account for the annualized capital costs of the control and monitoring equipment, operation and maintenance costs, periodic monitoring of materials handling operations, and annualized costs of the initial emissions testing.

G. What Are the Economic Impacts?

It should be noted that the economic impacts and social costs described below slightly overestimate the impacts for today's action, for they reflect the higher cost estimates ($22.4 million annualized costs) associated with the proposed rule.

The results of our economic impact analysis indicate the average price per ton for lime will increase by 2.1 percent (or $1.17 per metric ton) as a result of the final standards for lime manufacturers. Overall lime production is projected to decrease by 1.8 percent as a result of the final standards. Because of the uncertainty of control cost information for large firms, we accounted for these firms as a single aggregate firm in the economic model, so it is not plausible to estimate closures for large firms. However, among the 19 small firms in this industry, we project that two firms are at risk for closure.

Based on the market analysis, we project the annual social costs of the final rule to be $20.2 million. As a result of higher prices and lower consumption levels, we project the consumers of lime (both domestic and foreign) will lose $19.7 million annually, while domestic producer surplus will decline by $0.8 million. Foreign producers will gain as a result of the final rule with profit increasing by $0.2 million. For more information regarding the economic impacts, consult the economic impact analysis in the docket for the final rule.

V. Responses to Major Comments

This section presents a summary of responses to major comments. A summary of all comments received and our responses to those comments may be found in Docket ID No. OAR 2002–0052.

Comment: In the preamble to the proposed rule, EPA requested comment on establishing a subcategory for existing kilns equipped with wet scrubbers, if it could be demonstrated factually that there will otherwise be significant environmentally counterproductive effects due to increased emissions of acid gases, increased energy use, or increased water use. Several commenters asked that a subcategory for scrubber-equipped kilns be established since wet scrubbers cannot meet the proposed PM emission limit of 0.12 lb/tsf for existing affected kilns and, therefore, existing kilns with scrubbers will have to replace them with baghouses. They also asserted that in most cases, wet scrubbers have higher annualized costs than baghouses. Therefore, even if a wet scrubber could meet a PM emission limit of 0.12 lb/tsf, facilities will opt to use baghouses due to cost considerations. This will result in an increase in emissions of HCl (a HAP) and SO_2 (a non-HAP criteria pollutant) for a nominal decrease in HAP metal emissions. In later discussions, this same commenter (the industry trade association) pointed out that SO_2 can undergo chemical reactions

in the atmosphere to form sulfate PM, which is a type of PM which is less than 2.5 micrometers in diameter (fine PM). In support of this request, one commenter provided estimates that not establishing the requested wet scrubber subcategory will result in a HAP metals emissions decrease of 3 tpy nationwide, but will result in increased emissions of 2,220 tpy for HCl and 2,475 tpy for SO_2. They also provided data indicating that 46 percent of the increased SO_2 emissions would react to form fine PM in the form of sulfates. They estimate that this would result in an increase of 1,645 tpy of fine PM emissions. Other commenters provided site-specific examples they claimed demonstrated the same effect. One commenter also claimed that the higher operating temperatures of dry systems cause metals to vaporize and pass through a particulate collector, resulting in a lower metal concentration in the captured particulate. As a result, they claimed that even though dry control equipment may reduce HAP metals emissions, the reduction will be minimal, while the release of HCl and SO_2 emissions will increase significantly. The commenter provided data which they claimed show the only conventional pollutant that will be reduced with the installation of a dry control system will be PM and, "fugitive dust emissions from a dry system could more than offset the improved particulate collection on the kiln exhausts."

Response: Standards implementing section 112(d) of the CAA must, of course, be of a minimum level of stringency, usually referred to as the MACT floor. For existing sources, this floor level of control cannot be less stringent than "the average emission limitation achieved by the best performing 12 percent of the existing sources (for which the Administrator has emissions information)." In the final rule, EPA is establishing section 112(d) standards to control emissions of HAP metals, for which PM is a surrogate. None of the commenters challenged that the level of PM emissions reflecting the average of the 12 percent of the best performing sources (for HAP metals reduction) is 0.12 lb/tsf. Notwithstanding, the commenters contended that EPA should subcategorize on the basis of the type of air pollution control device used and then separately determine the floor for each subcategory.

Although the CAA contemplates that EPA may establish subcategories when promulgating MACT standards, subcategorization typically reflects "differences in manufacturing process, emission characteristics, or technical feasibility" (67 FR 78058). A classic example, provided in the legislative history to CAA section 112(d), is of a different process leading to different emissions and different types of control strategies, the specific example being Soderberg and prebaked anode primary aluminum processes (see *A Legislative History of the Clean Air Act Amendments of 1990*, vol. 1 at 1138–39 (floor debates on Conference Report)).

Normally, it is legally impermissible to subcategorize based on the type of air pollution control device. See *Chemicals Manufacturers Association* v. *EPA*, 870 F. 2d 177, 218–19 (5th Cir. 1989) modified on different grounds on rehearing 884 F. 2d 253 (5th Cir. 1989) (rejecting subcategorization based on type of control device for purposes of the technology-based standards under the Clean Water Act, which are analogous to the CAA section 112 standards). The problem with subcategorizing on the basis of pollution control device, quite simply, is that it leads to situations where floors are established based on performance of sources that are not the best performing. For example, suppose a source category consists of 100 sources using the same process and having the same emission characteristics, but that 50 sources use control device A to control HAP emissions, and 50 use control device B which is two orders of magnitude less efficient. If one subcategorized based on the type of pollution control device, the MACT floor for the 50 sources with control device B would reflect worst, rather than best performance. Although the disparity in levels of emission control between the best-performing sources here, and the best-performing sources using wet scrubbers is not this dramatic, the difference is nonetheless evident.

Commenters provided no technical data that would justify subcategorizing. Nor are we aware of any. The commenters maintain instead that the best performing sources with respect to HAP metal reduction should not be considered "best performing" because that performance (achieved by use of FF) comes at an environmental cost, namely increased emissions of HCl and SO_2 compared to what lime kilns equipped with wet scrubbers will emit. There is some support for the idea that if an ostensibly best-performing pollution control device creates potentially significant and counterproductive environmental effects, its performance need no longer be considered best due to the counterproductive effects and could justify differentiation in the form of separate standards. Commenters suggested that the increased emissions of HCl and SO_2 will inevitably result (they maintain) if the owners of lime kilns replace wet scrubbers with baghouses. (The commenters did not suggest, however, that kilns with FF should replace them with a different type of control system to avoid these impacts; they sought the result of separate standards for FF-equipped kilns and wet system-equipped kilns.)

Although it is not clear that the commenters' starting premise, that baghouses are either needed or will be used to achieve the PM standard, is invariably correct (see Response to Comment Document where EPA responds to comments regarding the performance capabilities of venturi wet scrubber systems), EPA estimated at proposal and continues to estimate that at least in some cases, kilns would replace wet scrubbers with dry systems (for example, where it is more economical to do so).

The commenters provided no data to refute that a PM emission limit of a 0.12 lb/tsf represents best control of HAP emissions if we do not create any kiln subcategories. (We note that as part of their comments, they claimed that the higher temperatures of dry PM controls result in metals vaporizing and passing through the PM control. However, the data provided in their comment do not substantiate that claim, and studies done for the Hazardous Waste Combustor NESHAP indicate that all but a few percent of the metals in question exit the kilns as solid particulate.) However, our analysis indicates that the extent to which SO_2 and HCl emissions actually increase may have been overstated by the commenter. The EPA estimates that if all facilities currently using wet scrubbers switched to dry controls, HCl emissions would increase by approximately 1,310 tpy (vs. 1,800 tpy estimated by the commenter), and SO_2 emissions would increase by about 1,830 tpy (vs 2,900 tpy estimated by the commenter). (See the memorandum "Environmental Impacts of Decision on Best Control for Wet Scrubber-Controlled Kilns' in the docket for the final rule.) We do not regard either level of increased HCl emissions as significant. We modeled this emission increase as part of our determination (pursuant to CAA section 112(d)(4)) that emissions of HCl from lime kilns are below an HCl risk threshold within an ample margin of safety. See 67 FR 78054–78057 and the risk analysis in the docket for the final rule. Given this determination, we cannot view these HCl increases as being so significant as

to raise a question whether the best-performing sources with respect to HAP metal reductions are in fact best performing.

The commenters also cited projected increases in the criteria pollutant SO_2. They did not initially address the reductions in PM emissions resulting from the decision not to subcategorize by control device. The EPA estimates that nearly 1,080 tpy of additional PM is removed if all existing kilns were to meet a standard of 0.12 lb/tsf, of which approximately 1.6 tpy are metal HAP. Although EPA may not promulgate standards for non-HAP under CAA section 112(d), Congress expected reductions in emissions of criteria pollutants such as PM to be a benefit of the MACT program. In comparison to estimates of increased emissions of SO_2 and HCl by either the commenter or EPA, the decrease in captured PM emissions (and the attendant decrease in capture of non-mercury metal HAP) is significant.

There is a further consideration, however. Based on the available size distribution data from Compilation of Air Pollutant Emission Factors, AP–42, Fifth Edition, Volume I: Stationary Point and Area Sources, 73 percent of the PM emitted directly by lime kilns is coarse PM (PM in the size range of 10 to 2.5 micrometers). Some of the SO_2 emitted to the atmosphere undergoes chemical reactions to form fine PM. (See generally the respective Criteria Documents for PM (EPA/600/P–95/001aF–cF. 3v, 1996) and SO_2 (EPA/600/8–82–029aF–cF. 3v., 1982 and addenda)). Thus, in assessing whether some potential factor might justify a decision that kilns with dry systems are not best performing, some comparison of coarse v. fine PM emissions here is needed.

If we retain a single PM emission limit of 0.12 lb/tsf for all existing kilns, total PM emissions would be reduced (compared to separate standards for kilns with wet scrubbers and dry controls) by an additional 1,080 tpy. Of that number, 630 tpy is fine PM and 450 is coarse PM. The potential amount of increased SO_2 emissions is 1,830. A portion of this 1,830 tpy of SO_2 will be converted in the atmosphere to produce 1,270 tpy of fine PM. Therefore, the incremental impact of a single PM standard of 0.12 lb/tsf for both wet scrubbers and dry controls would be an increase of 640 (1,270–630) tpy in fine PM emissions, and a decrease of 450 tpy in coarse PM emissions. This assumes that all facilities that currently have wet scrubbers switch to dry controls, and that 46 percent of the SO_2 converts to fine PM. The 46 percent conversion estimate used by the commenter is consistent with information in the respective Criteria Documents for PM and SO_2 discussed above.

As recently summarized by EPA (68 FR 28339, May 23, 2003), scientific studies show ambient PM (both fine and coarse) is associated with a series of adverse health effects. Fine PM is associated with increases in daily mortality. Coarse PM is more strongly linked to morbidity (*e.g.* hospital admissions). See generally the respective Criteria Documents for PM (EPA/600/P–95/001aF–cF. 3v, 1996) and SO_2 (EPA/600/8–82–029aF–cF. 3v., 1982 and addenda). Therefore, it is difficult to make comparisons between the relative benefits of reducing emissions of fine and coarse PM.

The EPA views this situation as equivocal: It is unclear which of these types of performance is best since on the one hand there is reduced emissions of HAP metals and coarse PM but foregone control of SO_2 and sulfate (fine) PM, and, for kilns controlled with wet systems, the converse. In this situation, and based on these facts, which, with current analytic tools seem to us to be largely in equipoise, we are not prepared to view either wet or dry systems as best performing and instead are promulgating a separate PM standard for each.

The EPA emphasizes that considerations of risk and relative environmental benefits are normally irrelevant to MACT floor determinations (unless expressly authorized by statute, as in CAA section 112(d)(4) as applied in the final rule), since floor standards must reflect the performance of the specified number of designated sources. See *National Lime Ass'n* v. *EPA*, 233 F. 3d at 640 (considerations of cost and *de minimis* risk cannot be considered in making MACT floor determinations). We are considering these factors in the final rule solely for the purpose of evaluating the commenters' claim that sources using wet and dry control systems should be evaluated separately for MACT floor purposes due to environmental benefits and disbenefits associated with dry and dry control systems.

Comment: One commenter stated that wet scrubbers cannot meet the proposed PM emission limit of 0.12 lb/tsf. They claimed that a wet scrubber manufacturer will only guarantee this limit if less than 1 percent of the particles to be removed are less than 1 micrometer in diameter. The commenter stated that EPA assumes that the average mass diameter of particles in lime kiln gas effluent is 2 micrometers, and that this assumption is based on a single reference, and that reference was actually fugitive lime dust, not lime kiln particulate. They further claimed that volatilization and homogenous nucleation of potassium chloride particles in the gas stream generates particles in the 0.1 to 0.5 micrometers size range. "As particle size decreases below 1 micrometer, inertial compaction becomes decreasingly effective. Above 0.1 micrometers, Brownian displacement is ineffective. In the range between 0.1 and 0.5 micrometers, neither of these two main particle capture mechanisms relied upon in wet scrubber design is very effective." The commenter presented data from a recent scrubber installation to demonstrate the point.

A second commenter claimed that a scrubber performance efficiency of 99.9 percent will be required to meet the 0.0072 grain/dry standard cubic foot (gr/dscf) particulate concentration which they claimed corresponds to the proposed PM emission limit of 0.12 lb/tsf. The commenter's environmental consultant advised that it is unlikely a wet scrubber with a 35-inch pressure drop could achieve this level of performance with the facility's current inlet exhaust particulate loading.

Response: We have serious technical disagreements with this comment, as set out in the Response to Comment Background Document. However, because EPA feels that some kilns with wet systems would replace them with dry systems to comply with a PM emission limit of 0.12 lb/tsf, the potential tradeoff between coarse PM/HAP metals and fine PM/SO_2 reductions likely will still occur.

Comment: One commenter contended that EPA asserts incorrectly that lime plants will choose high-efficiency venturi scrubbers to replace their current wet scrubbers because high-efficiency venturi scrubbers have lower capital costs and sometimes lower annual costs than FF. They further stated that five of the six model kilns the Agency examined had much higher annualized costs for high-efficiency venturi scrubbers than for FF. This commenter submitted a manufacturer's cost proposal that shows a scrubber with a 35-inch pressure drop costs substantially more than EPA estimates. They conclude from this that lime kilns will be forced to use FF, with attendant increases in HCl and SO_2 emissions. Another commenter stated that the cost for the installation of a FF will be higher than EPA estimated due to the location of existing equipment in the area where the collector should be located, construction of the duct collector in a congested area with plant operations,

and accessibility to existing lime kiln dust handling systems.

Response: Regarding modeled high costs for scrubbers compared to FF, individual models may show this characteristic. However, the distribution of kiln sizes in the lime industry and the allocation of model plants to those kilns shows that estimated nationwide total annual costs for replacing existing wet scrubbers with high-efficiency venturi scrubbers is $6.6 million. The total annual cost if the existing wet scrubbers are replaced with FF is $7.0 million. So there is essentially no cost difference on a nationwide basis.

For both types of control system, costs for any specific plant may be more or less than the value shown by the model used to estimate nationwide cost. The plant is expected to buy whatever system its management believes is in the best business interests of the owners, but in the aggregate, estimated annual cost for control systems is about the same whether all plants replace existing equipment with venturi scrubbers or with FF. It is for this reason that EPA is finding that at least some kilns would replace wet systems with dry if required to meet a uniform PM limit of 0.12 lb/tsf.

There were two comments where specific facilities claimed that their costs will be higher than EPA estimated in our model plant analysis. One was a vendor's actual cost proposal for a scrubber with 35-inch w.g. pressure drop, and one was for installation of a FF. Our costs are based on model plants developed from industry responses to questionnaires. Given that we do not have site specific information on every facility, this is a reasonable approach to calculating costs. It is always possible that there are site specific factors that will result in any one facility having higher or lower costs than costs estimated using model plants. Our methodology is based on estimates of basic equipment costs, and factors to calculate direct and indirect capital costs that constitute total capital investment. Unit costs are applied to labor, utilities, waste disposal, and other operating and maintenance costs to obtain direct annual costs. Indirect annualized costs based on capital recovery and other service charges are also estimated and added to direct annual costs to obtain total annual cost. Costing based on a model plant gives an estimate that can be included in an aggregate estimation of costs across all model plants weighted by their representation in the nationwide population. This approach necessarily will not address each specific case found in industry. Therefore, one facility's reported costs not corresponding to our model plant costs does not indicate that our costs are underestimated. We also note that, except for a comment on flue gas flow which we previously addressed, the commenters did not take exception to the basic equipment costs, energy costs, or cost factors used by us in our model plant assessment of the rule's cost analysis as proposed.

One commenter also mentioned the cost resulting from the location of existing equipment and plant congestion. We have accounted for these costs by including factors for demolition and salvage of existing equipment that will have to be replaced by the new control system. A retrofit factor is also included to account for difficulties in replacing existing equipment with new equipment in an existing plant (see "Costing Algorithm for Venturi Scrubber on Lime Kilns with Existing Scrubbers").

Comment: Several commenters claimed that not establishing a subcategory for scrubber-equipped kilns will adversely affect small businesses. They stated that the annualized cost of upgrading all scrubbers is $9.45 million, based on EPA's estimate of total annualized costs. According to the commenter, EPA predicts that upgrading these kilns will reduce HAP metals by 3.1 tpy, resulting in a cost effectiveness of $3.0 million/ton of metal HAP. The commenter stated that EPA's assumption that 30 percent of lime plants are area sources and won't be affected by the final rule reduces the removal of metal HAP attributed to upgrading scrubber-equipped kilns to 2.2 tpy (although the commenter stated that EPA has provided no support for the assumption that 30 percent of lime plants are area sources).

Another commenter noted that EPA's estimated annualized cost for the commenter to install FF is $2,236,000, which equates to $9.3 million per ton of particulate HAP control.

Response: Section 112 of the CAA precludes us from considering cost when calculating MACT floors. Therefore, none of the cost issues discussed above are sufficient to support a separate subcategory for existing kilns with wet scrubbers, or otherwise support a different standard.

Though costs cannot be a consideration here, our estimate shows a cost of $6.6 million to upgrade all scrubbers to meet the rule as proposed, versus the $9.45 million figure provided by the commenter. Our estimate assumed 70 percent of kilns are located at major sources, and 90 percent of scrubbers would require an upgrade. This was probable an overly conservative way to estimate costs. In reality, it is reasonable to assume that, on average, the existing scrubbers have only 50 percent of their useful life remaining. Because we allocated all of the capital cost of a new scrubber to the rule, our costs are conservative.

However, we have written the final rule to allow separate PM emission limits for kilns with wet versus dry controls. Therefore, the premise of the comment, that not subcategorizing by control device will adversely affect small business, is now moot. In the final costs, we estimate that only 30 percent of existing wet scrubbers will require upgrade or replacement. As noted previously, because we are allocating all the capital replacement cost to the final rule, our costs are still conservative.

Comment: One commenter objected to EPA's rationale of using PM as a surrogate for controlling toxic metals emissions. The commenter stated that if EPA has sufficient data to indicate that toxic emissions from lime kilns are an ambient air problem, then the regulation should focus on reducing gaseous emissions such as HCl.

Response: By limiting emissions of PM, the final rule will reduce emissions of non-volatile and semi-volatile metal HAP, which are a subset of PM, and are necessarily removed when PM is removed by air pollution control equipment. As stated in the preamble to the proposed rule, air pollution controls for HAP metals are the same as the PM controls used by the lime manufacturing industry, *i.e.*, FF, ESP, and wet scrubbers. These controls capture non-volatile and semi-volatile metal HAP non-preferentially along with other PM, thus making PM an acceptable indicator of these HAP metals. Particulate matter control technology, thus, indiscriminately captures HAP metals along with other particulate. Consequently, it is an appropriate indicator when the technical basis of the standard is performance of back-end particulate control technology.

Another reason for using a surrogate is the lower cost of emissions testing and monitoring for PM as compared to the cost of emissions testing and monitoring for multiple metal HAP that will be required to demonstrate compliance. Because PM control devices control metal HAP to the same efficiency and because of the associated cost savings associated with emissions testing and monitoring, the Agency has promulgated several other NESHAP where PM is a surrogate for non-volatile and semi-volatile metal HAP.

Regarding the commenter's second point concerning regulating emission of

HCl, the preamble to the proposed rule explained in detail the Agency's decision not to regulate HCl emissions from lime kilns. To summarize that discussion, the EPA determined that, under the authority of section 112(d)(4) of the CAA, no further control was necessary because HCl is a threshold pollutant, and HCl levels emitted from lime kilns are below the threshold value within an ample margin of safety to humans and to the environment, and considering the possibility that facilities that currently have wet scrubbers for PM emissions control may switch to dry PM controls. (The CAA section 112(d)(4) analysis also considered the potential for environmental harm posed by HCl emissions from these sources.)

Comment: One commenter stated that the PM emission limit for new lime kilns should be 0.12 lb/tsf, the same as the emission limit for existing kilns. The commenter noted that the proposed limit is based on two 3-hour test runs at one plant. According to the commenter, EPA recognized in the proposal preamble that 3-hour test results are just a snapshot in time and should not be used as the basis for establishing an enforceable standard, and that EPA expressly rejected such an approach when establishing the MACT floor for existing kilns. The commenter stated that data in the docket shows that 0.10 lb/tsf is not continuously achievable by lime kilns, and EPA should not establish a separate PM limit for new lime kilns.

Another commenter stated 0.10 lbs PM/ton stone feed for a new kiln is too restrictive, and EPA does not have adequate data to determine that a FF or scrubber-equipped kiln could achieve this low level of emissions on a sustained basis.

Response: The approach to which the commenter refers whereby EPA rejected the use of the "average or mean" in establishing the MACT floor for existing sources did not refer to the average of individual test runs as implied by the comment. Rather, it refers to EPA's decision to use the median (instead of a simple mean) of the top-performing 12 percent to set the MACT floor. Furthermore, as an indication of the achievability of the technology over the long term, EPA chose to rely on State-imposed permit limits (in conjunction with emissions test data showing that those permit limits are representative of actual performance) in arriving at the MACT floor emission limit.

In test data cited by the commenter, the three-run averages for two sets of emissions tests for the kiln used to set the MACT new PM limit are below (0.079 and 0.091 lb/tsf) the proposed PM limit of 0.1 lb/tsf for new lime kilns. The commenter noted that one of the test runs was at the proposed 0.1 lb/tsf PM limit and that the proposed 0.1 lb/tsf limit was, therefore, inappropriate.

It is reasonable for EPA to establish a standard based on the same methodology that will be used for complying with that standard. See, *e.g., Chemical Waste Management* v. *EPA,* 976 F. 2d 2, 34 (D.C. Cir. 1992). We note that compliance with emission limits is normally based on a three-run average which can accommodate occasional elevated results as long as the average is at or below the established limit. Furthermore, the emission test results for five of the six top performing kilns were 0.0091, 0.013, 0.026, 0.027, and 0.091 lb/tsf. These results adequately account for operating variability and indicate that any new kiln using well designed and operated control devices can meet the 0.1 lb/tsf limit. Based on this, we see no basis to state that a 0.10 lb/tsf PM emission limit is not achievable or appropriate.

Comment: One commenter claimed that the proposed NESHAP will require the replacement of their two wet scrubbers with baghouses. They claim there is no space for FF retrofit, and that converting to baghouses will trigger prevention of significant deterioration (PSD) nonattainment review due to increased SO_2 emissions.

Response: While we recognize that a facility may (or may not) have site-specific space restrictions, we have, on average, adequately accounted for these factors by incorporating cost analysis factors to account for retrofit and equipment demolition. We have also allowed a facility 3 years to comply with the final NESHAP. This should allow sufficient time for facilities to replace or upgrade existing equipment during scheduled outages. The averaging provisions in the final NESHAP also provide facilities with additional flexibility concerning replacement or upgrade of existing equipment.

Requiring an existing facility with a wet scrubber to upgrade their PM controls to meet 0.12 lb/tsf will not necessarily trigger new source review (NSR). First, as previously discussed, the facility can choose to replace or upgrade their existing scrubbers, which means there will be no SO_2 (or other collateral pollutant) emissions increase to trigger NSR requirements. Second, if they choose to use a baghouse, they may be able to avoid NSR by qualifying for a pollution control project exclusion (67 FR 80186).

Comment: One commenter stated the particulate matter emission limits proposed for lime manufacturing kilns and coolers do not represent the maximum achievable control technology and are much less stringent than the limits actually required by the CAA. The commenter noted that the proposed rule discredits performance test data which demonstrate that particulate emissions of less than half the proposed standard for existing plants are routinely achieved by claiming they may not be consistently achievable, but EPA has provided no statistics. The commenter claimed that EPA has chosen instead to base the standards on permit limits, but has selectively eliminated from consideration those permits calling for stringent controls which are currently in place. The commenter gives the examples of Continental Lime which is in compliance with a best available control technology (BACT) limit for PM emissions of 0.05 lb/ton limestone, and Western Lime which is in compliance with a permit limit for PM emissions of 0.06 lb/ton limestone.

The commenter noted that if performance data do not represent achievable emission limits, EPA should consider design standards based on air-to-cloth ratios. The commenter also stated the proposed particulate emission limits for grinders, conveyors, and bins are also based on data which overstate emissions (in nearly all cases) and do not represent MACT. The commenter stated EPA should examine actual performance test data test or actual permit limitations.

Response: The EPA reviewed data on the kilns referred to in the comment. The permit limits cited by the commenter were apparently reported on the EPA Technology Transfer Network (TTN) website. The EPA contacted the Montana Department of Environment and found that the limit for one of these kilns is actually 0.5 lb/tsf and not 0.05 lb/tsf as reported on the TTN website. Also, the complete permit for the other kiln mentioned was located on the Wisconsin Department of Natural Resources website, which showed the permit limit for the kiln in question as being 0.12 lb/tsf rather than the 0.058 lb/tsf as reported on the TTN website. Based on the correct PM permit limits for these two lime sources, EPA's conclusions regarding MACT PM limits for existing and new sources are still appropriate. As the response to the previous question shows, these permit limits are also representative of actual performance.

The floor for grinders, conveyors, and bins is based on the existing new source performance standards (NSPS). We have no data to support a different floor.

Comment: One commenter stated that opacity does not correlate to PM mass emissions. The commenter noted the EPA has stated on several occasions that a COMS can determine opacity, but a COMS cannot determine PM emissions. And if particle density changes but the particle size remains the same, opacity will not change while the mass emission rate will change in proportion to the density change. The commenter agreed that PM is a technically sound surrogate for HAP metals, but disagreed that opacity serves as a surrogate for HAP metals as stated in the proposal preamble.

The commenter stated that a COMS can not be used to evaluate the continuous compliance status of kilns, coolers, or PSH operations that have a mass emission limit. The commenter was not aware of any data that show a definitive link between opacity and mass emissions except in very limited and controlled situations. In addition, the commenter did not understand how a 15 percent 6-minute average opacity limit can be correlated to a 3-hour rolling average PM emission limit of lb/ton of stone feed.

The commenter stated a better alternative is to use a PM continuous emissions monitor system (CEMS) that measures PM mass emissions in units that are directly related to the mass emission limit. The commenter noted that EPA's stated reluctance to use a PM CEMS in the absence of performance specifications is inconsistent with the remainder of the standard, since the use of BLDS and a PM detector are proposed without performance specifications. The commenter also noted that an extractive type PM CEMS designed to operate in wet exhaust streams can provide a direct indication of compliance for wet scrubbers.

Response: We agree that a COMS cannot directly measure PM emissions. However, a properly calibrated and maintained COMS is sufficient to demonstrate long term PM control device performance. The purpose of the monitor is to demonstrate with reasonable certainty that the PM control device is operating as well as it did during the PM emission test used to demonstrate compliance.

We also note that PM CEMS are significantly more expensive to purchase and maintain than a COMS or PM detector. Also, PM CEMS measure concentration, while the basis of the standard is mass per unit of feed input. Because the standard is not based on PM concentration, and no PM CEMS are currently installed and operating on the best controlled kilns, we have no data to develop a PM standard based on the use of PM CEMS.

Comment: Several commenters stated EPA Method 9 in Appendix A to 40 CFR part 60 should be allowed for a positive pressure baghouse. According to one commenter, the bag leak detector guidance document recognizes that requiring BLDS will be very costly, and stated that the document does not apply to this type of baghouse (EPA's "Fabric Filter Bag Leak Detection Guidance" (EPA–454/R–98–015, September 1997, pg 2). This commenter gave the example of a small business that will be required to have a bag leak detector for each of the eight compartments in its baghouse under the final rule, and whose title V permit allows Method 9 monitoring for the baghouse. According to one commenter, the associated costs of installing a separate bag leak detector or PM CEM sensor on each discharge or new common stack could easily exceed $1,000,000. The commenter noted that, "baghouse pressure differential readings, together with fan amperage and daily visible emission notations will provide the necessary performance assurance with ample and timely indication of baghouse failures or malfunctions."

Response: We acknowledge that there are precedents for the use of alternatives to COMS, BLDS, and PM detectors on positive pressure baghouses that have multiple stacks. The NESHAP for portland cement, an industry that has similarities to the lime manufacturing industry, allows the use of opacity monitoring using Method 9 in Appendix A of 40 CFR part 60 for kilns having control devices with multiple stacks. Based on this analogous situation, we have decided that existing lime kilns controlled by control devices having multiple stacks will have the option of using Method 9 in Appendix A of 40 CFR part 60 for daily opacity monitoring.

Comment: One commenter stated that a single excursion from operating parameters recorded during a 3-hour compliance test should not constitute a violation. The commenter stated that, "the new source performance standard (NSPS) kilns are the lime industry's top performers, and their monitoring regime should be the benchmark against which monitoring under the MACT rule is prescribed." Since a violation under the NSPS does not occur unless the parameter is greater than 30 percent below the rates established during the performance test, the commenter recommends a 30 percent "buffer" between the permit limit and the 3-hour average recorded during the compliance test. Or, "alternatively, like the Pulp and Paper MACT, the rule should specify that a violation of the standard does not occur unless 6 or more 3-hour average parameter values are recorded outside the established range within the 6 month reporting period."

The commenter noted that EPA's compliance assurance monitoring (CAM) guidance document states, "Use of only 3 hours of parameter data may not be sufficient to fully characterize parameter values during normal operation." The commenter also noted that language in the proposal preamble cautions against developing enforceable emission standards based on 3-hour compliance tests. The commenter also noted that none of the CAM plans for scrubbers base a permit limit on the 3-hour average reading that occurred during a compliance test, and two of the plans allow a 15 percent buffer to account for variability.

The commenter provided gas pressure drop readings and concurrent PM test data for three kilns, and noted that for each of them, gas pressure drop during one or more 1-hour runs was below the proposed 3-hour average. The commenter stated that under the proposed rules, these readings below the 3-hour average would constitute a violation.

The commenter also stated the final rule should provide an exemption from the PM emission limit during performance testing. The commenter stated, "plant operators may need to conduct a series of performance tests to determine the minimum pressure drop and liquid flow rate levels that will assure compliance for each set of operating conditions used for a particular kiln. Results for these tests are not available until post-test laboratory analyses are completed."

Response: Each owner/operator is required to define the compliance parameters to be monitored in their OM&M plan. Then, during the initial performance tests, they are required to monitor and establish the value or range of the parameters. The 30 percent buffers referred to by the commenters refer to NSPS, which, in general, predate NESHAP. In developing various NESHAP, we determined that the 30 percent buffers were not necessary. For this reason, most NESHAP specify that exceeding an operating parameter over the specified averaging period is a deviation. The commenters also mentioned the Pulp and Paper MACT. However, the Pulp and Paper MACT would appear to be unusual in regards to the allowance for exceedances. The commenters did not provide any rationale why we should add provisions similar to the Pulp and Paper MACT

when other MACT standards do not allow exceedances.

The commenters also referred to a statement in the CAM proposal and guidance document. The CAM rule only applies to emission limitations or standards proposed by the Administration on or before November 15, 1990. Monitoring and control technology have progressed significantly since the technology available when these older rules were developed. Also, facilities have 3 years to install control equipment and learn their processes' operating parameters and set up compliance test conditions that result in operating limits that both result in compliance with the PM emission limit and can be met on a continuous basis. For these reasons, we do not agree that the CAM applies here.

Most operating parameters are required to be calculated as 3-hour averages. This is generally consistent with performance test times. Thus, a 1-hour period of insufficient gas pressure drop will not, by itself, be considered an excursion.

Facilities must complete their performance tests prior to the compliance date. Therefore, they are not required to be in compliance with the emission limits during testing, and there is no reason to provide an exemption.

Comment: In response to EPA's request for comments on the appropriate opacity limit (EPA was considering an opacity limit of 10 to 15 percent), several commenters stated that the opacity standard for lime kilns should be 15 percent, as proposed. One commenter provided additional data in the form of opacity data from four kilns. According to this commenter, the opacity data for selected kilns are not reliable for establishing an opacity standard because they are from visible emission data collected for brief periods of time under poor viewing conditions.

Response: Based on information considered prior to proposal as well as additional information supplied by commenters, EPA is retaining the 15 percent opacity limit for sources controlled using FF and ESP. Information considered by EPA in proposing the opacity limit suggested that the average opacity permit limit of the top performing lime kilns was 15 percent. Information provided by the commenters supporting the proposed opacity limit indicated that opacity levels may vary between 10 and 15 percent even for well operated and maintained kilns. No information was provided supporting a more stringent, or more lenient opacity limit than the one proposed. Therefore, EPA is retaining the proposed 15 percent opacity limit in the final NESHAP.

Comment: Several commenters requested that the final rule specify a time period during which opacity readings greater than 15 percent are not considered a violation. One commenter requested at a minimum that the final rule state that opacity readings greater than 15 percent for less than 1 percent of the reporting period are not considered to be a violation.

Another commenter noted that they operate two of the top six performers in the industry, and it is impossible not to have occasional readings that would be violations if there were no allowances for them. The commenter's State permits allow 1 percent of operating time per quarter to exceed the opacity limit.

Another commenter suggested other time frames for allowable exceedances. Two commenters referred to the Pulp and Paper MACT as an example of an existing rule with such an exemption.

Response: We find no justification to support allowing excursions above the 15 percent opacity limit. Well operated and maintained control devices will typically operate at opacity levels much lower than 15 percent. Other NESHAP, including the portland cement NESHAP, contain opacity limits for which no exceedances are allowed. Data from limes kilns, cited below, support this. Because we have industry specific data, the Pulp and Paper MACT example is not applicable.

In response to the commenters' concerns about occasional excursions above the opacity limit, there are times when opacity levels above 15 percent are not considered to be a violation of the final rule. These include periods when a control device malfunctions, or is in a period startup or shutdown (as long as the facility follows its SSMP). If opacity levels exceed 15 percent as a result of a control device startup, shutdown, or malfunction, it will not be considered a violation of the opacity limit (see § 63.7121(b)of the final rule). The same is true during periods when a monitoring system malfunctions or is being calibrated (see § 63.7120(b) of the final rule).

Information supplied by one commenter showed opacity readings for several kilns over several days. Nearly all of the readings were well below the 15 percent limit with just a few exceptions for each kiln. The commenter who supplied the opacity readings was asked to supply additional information regarding the opacity excursions above 15 percent. In each instance, the high opacity reading was explained by a startup, shutdown, or malfunction of the control device or by a malfunctioning monitor or a monitoring system that was undergoing calibration, none of which will be considered a violation of the opacity limit as long as the facility follows its SSMP. Well run and maintained control devices can meet the opacity limit and the occasional excursion above the limit due to control device or monitoring system malfunction will not be a violation of the operating limit.

Comment: One commenter claimed that the economic impacts analysis (EIA) neglected to include some significant costs of implementing the rule, including the cost of dismantling existing equipment, lost sales during downtime, and the cost of re-hiring personnel after plant modifications if scrubbers must be replaced. The commenter also noted that maintenance and supervisory personnel currently do not work evening and weekend shifts, but will likely be required in the event of failure of the recommended monitoring equipment.

A second commenter stated EPA's estimated $1.17 per ton of lime cost estimate for control costs is low, and the cost to a typical lime producer will be significantly higher. In particular, the commenter noted that the additional power required for high pressure drop scrubbers alone would be approximately $1.30 per ton of produced lime. In addition, EPA's estimated equipment costs appear to be low.

Response: As discussed in the response to comments regarding a separate subcategory for scrubbers, estimated implementation costs used for the EPA model plants include costs for demolition of existing equipment and credits for salvage value. Because plants have a 3-year period in which to comply with the final NESHAP, it is expected that scheduled downtime will be used for disconnecting an existing scrubber and connecting a new scrubber. As a general practice, building a new scrubber while the existing scrubber remains in operation is preferable to taking the associated kiln out of service for an extended period of time and losing production from the kiln. The plant is expected to use its labor force in the manner normally found for planned downtime. Such labor costs (or savings) would not be attributable to compliance with the final NESHAP.

Power costs for new scrubbers are calculated incrementally, *i.e.*, costs are estimated for the difference between 35-inch. w.g. (new scrubbers) and 14 inch w.g. (existing scrubbers). For individual model kilns, summing the power costs and dividing by the model's production rate gives estimated incremental power

costs ranging from $0.82 to $1.47/ton of lime. On a nationwide basis, aggregating the model kiln costs apportioned among the affected kiln population provides average costs as estimated by EPA.

Comment: One commenter claimed that the EIA is seriously flawed because it assumes lime producers can pass control costs through to consumers. The commenter maintained that lime producers cannot raise prices. The reasons cited included a highly competitive market due to overcapacity, competition from unregulated sources, the existence of competitive substitutes for most key markets, and significant market resistance. The commenter also claimed that recent history proves that prices cannot be increased. Finally, the commenter stated that because the price increase assumed by EPA is erroneous, EPA's prediction that only two lime plants will close seriously understates the impact. One other commenter also stated that they could not increase prices.

Response: We conducted an economic analysis primarily as part of the Executive Order 12866 analysis and partly to ascertain impacts on small businesses for purposes of compliance with the Small Business Regulatory and Enforcement Fairness Act (SBREFA). The analysis is also used to determine economic impacts of any beyond-the-floor considerations under section 112(d)(2) of the CAA. However, as provided by section 112(d)(3), and confirmed by the D.C. Circuit in the *National Lime* case, considerations of costs are simply irrelevant to determinations of MACT floors. Thus, EPA did not consider any of the economic analysis as part of its floor determinations, and that context should be understood in all of the responses to comments relating to the Agency's economic impact analysis.

The fact that many lime plants are currently operating at less than full capacity implies that their supply curves should be relatively elastic (flat) at current production levels because lime producers can fairly easily change output without running into capacity constraints.

Assuming that the lime industry is very competitive (as stated by the commenter) and has substantial overcapacity implies that the industry marginal cost curve (and the market supply curve) should be relatively flat at current production levels. To the extent that the costs of the lime manufacturing MACT standards increase the marginal costs of lime production, having a very elastic (flat) supply curve is a textbook case where the majority of the costs are passed on to consumers. A highly competitive market implies, by definition, that individual producers cannot unilaterally increase their prices without losing most, if not all, of their customers. It does not imply that the market price will not increase in response to a general increase in the cost of lime production due to environmental regulations.

It is certainly true that foreign lime suppliers (including suppliers located in Mexico) gain because the final rule applies only to domestic lime producers. However, imports of lime account for an extremely tiny share of the lime market prior to the final rule (about 1 percent nationally), and even a fairly large percentage increase in imports shows up as a very small change in absolute terms. High transportation costs are expected to prevent significant replacement of domestic lime with imported lime.

To examine the historical supply responsiveness in the lime market, we estimated the supply elasticity for lime using data from 1983–2001. These estimates capture the overall change in the quantity of lime supplied in response to a change in the real (inflation-adjusted) price of lime, including any entry or exit of captive suppliers from the market. Based on estimates obtained from the econometric model, the domestic lime supply elasticity was 1.24 at the average price and quantity for the period and 0.98 using the lime price and quantity for 1997, the baseline year for the EIA. The value for the baseline year implies that a 1 percent increase in price would lead lime producers to increase their lime production by 0.98 percent, other things being equal.

For the lime price to remain constant due to entry into the commercial market by captive suppliers, that entry would need to be sufficient that it led to the market supply curve being perfectly elastic. There is no evidence for a perfectly elastic market supply curve due to large-scale entry based on historical estimates of the responsiveness of lime supply to changes in real price.

There are substitutes for lime in many of the markets in which it competes, such as crushed limestone, caustic soda, soda ash, and other products. However, unless the alternatives are perfect substitutes, this does not imply that the price of lime will not increase in response to an increase in production costs.

The fact that lime prices have not increased in recent years despite plant closures and increases in real prices in no way implies that those events do not exert upward pressure on prices. The relevant comparison is the price with and without those events, not before and after they occur. It is expected that prices would have been even lower if there had not been closures and increases in input prices.

As outlined in the responses to these comments, there is no evidence to support the claim that the assumption that lime price will increase is erroneous, and that the estimated economic impact of the final rule is understated.

Comment: One commenter stated that the EPA economic model for the lime market assumes a nationally perfectly competitive market, but lime prices are primarily dictated by large producers who sell capacity regardless of price.

Response: This comment suggests that large lime producers have market power and, therefore, face a downward sloping demand curve and have some ability to set prices. If large lime producers do possess market power, then profit-maximizing behavior would imply that they would restrict output below the levels expected under perfect competition in order to increase market price to the point that their marginal revenue is equal to their marginal cost. The large producers may have lower marginal costs such that the resulting price makes it difficult for the small producers that take the market price as given to remain in business. However, the presence of market power in the lime industry would tend to increase prices relative to the perfectly competitive case, not decrease them.

Comment: One commenter was concerned over EPA's use of the Acute Exposure Guideline Level (AEGL) in assessing the health risk associated with HCl. While not directly objecting to the conclusions reached by EPA, the commenter noted that the intended use of the AEGL, according to the National Research Council, is in conjunction with "once in a lifetime" exposures for emergency exposures ranging from 10 minutes to 8 hours. Because the AEGL values are intended to be used in conjunction with a single lifetime exposure, they can be higher than short term limits recommended for populations with repeated exposures. It is not clear in the description of the industry analysis, if in their use of AEGL they were contemplating a once in a lifetime exposure or whether exposures would be occurring repeatedly. The commenter stated that EPA should explicitly state how they believe AEGL values should be used in their risk assessment process and what are the possible exposure levels to the public. The commenter was also troubled by the use in the rationale of

both the reference concentration (estimated daily exposure that over a lifetime is not likely to result in significant noncancer effect in humans) and the AEGL (once in a lifetime exposure).

The commenter asked that EPA clarify their position on the use of AEGL values for environmental risk assessments, and whether its use represents a "reasonable methodology" and "consistent with EPA methodology" as claimed in the preamble.

Response: In order to evaluate short-term exposure to hydrochloric acid, EPA reviewed the available acute dose-response values for this compound. Among these, the Calliope reference exposure level (REL) and AEGL–1 values (2.1 and 2.7 mg/M^3, respectively) were found to be the most health protective. Since these benchmarks were effectively the same, and AEGL values are products of a Federal effort in which EPA participates, we gave priority to the AEGL. Therefore, the AEGL–1 selected for analysis represented the most appropriate value.

Comment: Several commenters stated the final rule should not require HCl testing of all kilns. The commenters note that in recent years, many lime plants have been forced to idle or infrequently operate kilns at operating plants due to increased fuel cost, reduced customer demand, *etc.*, and start up of every kiln for the purpose of conducting HCl testing will require significant expenditures. This will also result in PM and other emissions that otherwise would not be generated. As a result, it was requested the final rule be written to provide state agencies with the discretion to determine whether testing of all kilns at a lime plant is necessary in order to demonstrate that a plant is an area source.

Response: In the final NESHAP, we have included language allowing the permitting authority discretion concerning whether idle kilns must be tested.

Comment: Several commenters stated that performance testing should be conducted under "representative" conditions rather than under the "highest production level reasonably expected to occur." One commenter noted inconsistencies between what is proposed in Table 4 in the proposed rule and what is required under the General Provisions at 40 CFR 63.7(e)(1). The EPA has recently amended the Cement MACT to fix similar inconsistencies, and the commenter suggested the lime MACT be similarly revised.

Response: We have written the requirement in the final rule to require testing under representative conditions, which is in agreement with the language in the General Provisions.

Comment: Two commenters stated the final rule should provide a risk-based exemption from the entire rule (not just from HCl standards) for plants at which modeled risks are below health based thresholds. One commenter noted that EPA recently solicited comment on providing risk-based exemptions in proposed MACT standards for several source categories. This commenter strongly supported the view that such exemptions should be provided in MACT standards that impose substantial costs while achieving negligible reductions in risks to public health and stated the lime MACT fits this description.

Response: Other than the decision to not regulate emissions of HCl from lime manufacturing, EPA did not consider and did not request comments on providing risk-based exemptions for lime manufacturing facilities. Although EPA is aware that risk-based exemptions were being discussed in other proposed rules, no decisions have been made by the Agency regarding risk-based exemptions and application to industry groups or individual plants. Due to the uncertainty of how these exemptions would be structured, it would not be appropriate to include these site specific risk-based exemptions in the final rule. Including such a substantive statement change in the final rule without allowing the general public an opportunity to comment would be a violation of the notice and comment requirements found in section 307(d) of the CAA, especially in light of the fact that their inclusion in other proposed rules have generated significant negative public comment.

Comment: One commenter stated the benefits analysis is based on inaccurate assumptions, and presented conclusions regarding reductions in metal HAP that are greatly overstated.

The commenter also claimed that the emission factor for existing uncontrolled stone handling operations is also overstated; it was derived using AP–42 emission factors with "E" ratings. The commenter stated that it presented to the SBREFA Panel a more reliable emission factor for these units that is rated "C" and was revised in 1995.

In addition, the commenter claimed that EPA overstated the amount of new capacity and the emissions from new rotary kilns. The commenter stated, "EPA should either reflect (our) estimates in the preamble to the final rule, or provide a reasoned response to our comments that EPA's estimates are overstated" * * * we believe the best estimate of metal HAP reductions is 3.5 tons (7,000 pounds) per year. Based on the 56 lime plants predicted to be subject to the MACT rule, this translates into an annual reduction in metal HAP per lime plant of 124 pounds.

Response: We reviewed the new information on PM emissions presented by the commenter, as well as their calculations of baseline emissions and emission reductions resulting from the final rule. In the case of baseline emissions from kilns and coolers, the information provided by the commenter is a more reasonable estimate than the emission factors we used at proposal. Therefore, we revised our baseline PM emissions estimates to incorporate this new information. In the case of emissions from PSH operations, we based our emission estimates on a mass balance approach. This method is reasonably accurate, and we did not revise baseline emission estimates for PSH operations. This resulted in our estimate of metal HAP emission reductions to be changed to 14.4 tpy, compared to an estimate of 23 tpy.

V. Statutory and Executive Order Reviews

A. Executive Order 12866, Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), we are required to determine whether the regulatory action is "significant" and, therefore, subject to review by the Office of Management and Budget (OMB) and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligation of recipients thereof; or

(4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, OMB notified EPA at proposal that it considered this rulemaking a "significant regulatory action" within the meaning of the Executive Order. The EPA submitted the

proposed rule to OMB for review. Changes made in response to OMB suggestions or recommendations are documented and included in the public record. The OMB has informed EPA that it considers this final action nonsignificant. Therefore, it is not subject to further OMB review. The OMB was briefed on the responses to major comments, and was provided a copy of the regulation and preamble prior to publication. However, they did not request any changes in the final rule.

B. Paperwork Reduction Act

The information collection requirements in the final rule have been submitted for approval to the Office of Management and Budget under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq*. We have prepared an Information Collection Request (ICR) document (2072.01), and a copy may be obtained from Susan Auby by mail at U.S. EPA, Office of Environmental Information, Collection Strategies Division (2822T), 1200 Pennsylvania Avenue, NW., Washington DC 20460, by e-mail at *auby.susan@epa.gov*, or by calling (202) 566–1672. You may also download a copy off the Internet at *http://www.epa.gov/icr*. The information requirements are not effective until OMB approves them.

The information requirements are based on notification, recordkeeping, and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A), which are mandatory for all operators subject to national emission standards. These recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414). All information submitted to the EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to Agency policies set forth in 40 CFR part 2, subpart B.

The final rule will require development and implementation of an OM&M plan, which will include inspections of the control devices but will not require any notifications or reports beyond those required by the NESHAP General Provisions (40 CFR part 63, subpart A). The recordkeeping requirements require only the specific information needed to determine compliance.

The annual monitoring, reporting, and recordkeeping burden for this collection (averaged over the first 3 years after the effective date of the rule) is estimated to be 7,800 labor hours per year, at a total annual cost of $621,600. This estimate includes notifications that facilities are subject to the rule; notifications of performance tests; notifications of compliance status, including the results of performance tests and other initial compliance demonstrations that do not include performance tests; startup, shutdown, and malfunction reports; semiannual compliance reports; and recordkeeping. Total capital/startup costs associated with the testing, monitoring, reporting, and recordkeeping requirements over the 3-year period of the ICR are estimated to be $1,000,000, with annualized costs of $377,900.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to: Review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for our regulations are listed in 40 CFR part 9 and 48 CFR chapter 15. When the OMB approves the information collection requirements of the final rule, the EPA will amend the table in 40 CFR part 9 of currently approved ICR control numbers issued by OMB for various regulations.

C. Regulatory Flexibility Analysis

The EPA has prepared a final regulatory flexibility analysis (FRFA) in connection with the final rule. For purposes of assessing the impacts of today's final rule on small entities, a small entity is defined as (1) a small business as a lime manufacturing company with less than 500 employees; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. Despite the determination that the final rule will have no significant impact on a substantial number of small entities, EPA prepared a Small Business Flexibility Analysis that has all the components of a FRFA. An FRFA examines the impact of the final rule on small entities. The Small Business Flexibility Analysis (which is included in the economic impact analysis) is available for review in the docket, and is summarized below.

It should be noted that the small business impacts described below slightly overestimate the impacts for today's action, for they reflect the higher cost estimates ($22.4 million) associated with the proposed rule.

Based on SBA's size definitions for the affected industries and reported sales and employment data, EPA identified 19 of the 45 companies owning potentially affected facilities as small businesses. Eight of these 45 companies manufacture beet sugar (which will not be subject to the final NESHAP), three of which are small firms. Further, an additional 3 of the 19 small companies will not be subject to the final NESHAP because they do not manufacture lime in a kiln (*e.g.*, they are only depot or hydration facilities), and/or we do not expect them to be major sources. It is, therefore, expected that 13 small businesses will be subject to the final NESHAP. Although small businesses represent 40 percent of the companies within the source category, they are expected to incur 30 percent of the total industry annual compliance costs of $18.0 million.

The economic impact analysis we prepared for the final NESHAP includes an estimate of the changes in product price and production quantities for the firms that the final NESHAP would affect. The analysis shows that of the facilities owned by potentially affected small firms, two may shut down rather than incur the cost of compliance with the final rule. Because of the nature of their production processes and existing controls, we expect these two firms will incur significantly higher compliance costs than the other small firms.

Although any facility closure is cause for concern, it should be noted that in general, the burden on most small firms is low when compared to that of large firms. The average annual compliance costs for all small firms is $358,000, compared to $592,000 per year for large firms. If the two small firms expected to incur significantly higher control costs are excluded, the average annual compliance cost for the remaining firms

will be $205,000, which is much less than the average control costs for large firms.

The EPA's efforts to minimize small business impacts have materially improved today's final rule. Economic analysis of provisions under earlier consideration prior to the rule's proposal indicated greater impacts on small businesses than those in today's final rule. For the small companies expected to incur compliance costs, the average total annual compliance cost would have been roughly $567,000 per small company (compared with $358,000 in today's final rule). About 85 percent (11 firms) of those small businesses expected to incur compliance costs would have experienced an impact greater than 1 percent of sales (compared with 69 percent of those small businesses in today's final rule). And, 77 percent (10 firms) of those small businesses expected to incur compliance costs would have experienced impacts greater than 3 percent of sales (compared with 31 percent of those small businesses in today's final rule).

Before concluding that the Agency could properly certify today's final rule under the terms of the RFA, EPA conducted outreach to small entities and convened a Panel as required by section 609(b) of the RFA to obtain the advice and recommendations from representatives of the small entities that potentially would be subject to the proposed rule requirements. The Panel convened on January 22, 2002, and was comprised of representatives from OMB, the SBA Office of Advocacy, the EPA Small Business Advocacy Chair, and the Emission Standards Division of the Office of Air Quality Planning and Standards of EPA. The Panel solicited advice from eight small entity representatives (SER), including the National Lime Association (NLA) and member companies and non-member companies of the NLA. On January 30, 2002, the Panel distributed a package of descriptive and technical materials explaining the rule-in-progress to the SER. On February 19, 2002, the Panel met with the SER to hear their comments on preliminary options for regulatory flexibility and related information. The Panel also received written comments from the SER in response to both the outreach materials and the discussions at the meeting.

Consistent with RFA/SBREFA requirements, the Panel evaluated the assembled materials and small-entity comments on issues related to the elements of the initial RFA. A copy of the Panel report is included in the docket for the final rule.

The Panel considered numerous regulatory flexibility options in response to concerns raised by the SER. The major concerns included the affordability and technical feasibility of add-on controls.

These are the Panel recommendations and EPA's responses:

- Recommend that the proposed rule should not include the HCl work practice standard, invoking section 112(d)(4) of CAA.

Response: The proposed rule did not include an emission standard for HCl. The final rule also contains no emission standard for HCl.

- Recommend that in the proposed rule, the MPO in the quarry should not be considered as emission units under the definition of affected source.

Response: The MPO in the quarry were excluded from the definition of affected source in the proposed rule. They are also excluded in the final rule.

- Recommend that the proposed rule allow for the "bubbling" of PM emissions from all of the lime kilns and coolers at a lime plant, such that the sum of all kilns' and coolers' PM emissions at a lime plant would be subject to the PM emission limit, rather than each individual kiln and cooler.

Response: The proposed rule defined the affected source as including all kilns and coolers (among other listed emission units) at the lime manufacturing plant. This would allow the source to average emissions from the kilns and coolers for compliance determination. In the final rule we have retained averaging provisions with the following modifications. New kilns and existing kilns may be averaged together, new kilns must individually meet the 0.10 lb/tsf PM emission limit, and existing kilns subject to the 0.60 lb/tsf PM emission limit may not be included in any averaging scheme. Due to other changes in the rule, the changes in the averaging provisions do not increase the stringency of the final rule compared to the proposed rule.

- Recommend that we request comment on establishing a subcategory for existing kilns that currently have wet scrubbers for PM control because of the potential increase in SO_2 and HCl emissions that may result in complying with the PM standard in the proposed rule.

Response: We requested comment on this issue in the proposed rule. Based on the comments received, we determined that a separate subcategory for scrubber equipped kilns was not appropriate. However, we have included in the final rule separate standards for kilns with dry PM emissions control systems, and wet scrubbers. This change addresses the underlying concern of the original comment.

- Recommend that we undertake an analysis of the costs and emissions impacts of replacing scrubbers with dry APCD and present the results of that analysis in the preamble; and that we request comment on any operational, process, product, or other technical and/or spatial constraints that would preclude installation of a dry APCD.

Response: We requested comment on these issues in the proposed rule and presented said analysis. We responded to all comments on these issues in the final rule.

- Recommend that the proposed rule allow a source to use the ASTM HCl manual method for the measurement of HCl for area source determinations.

Response: The proposed rule included this provision. This provision has been retained in the final rule.

- Recommend that we clarify in the preamble to the proposed rule that we are not specifically requiring sources to test for all HAP to make a determination of whether the lime plant is a major or area source, and that we solicit public comment on related issues.

Response: The preamble of the proposed rule contained this language. In the final rule, we do not specify that testing for all HAP is required. However, we do not specifically say it is precluded because these determinations are better made on a case-by-case basis by the permitting authority.

- Recommend that we solicit comment on providing the option of using COMS in place of BLDS; recommend that we solicit comment on various approaches to using COMS; and recommend soliciting comment on what an appropriate opacity limit would be.

Response: The preamble of the proposed rule solicited comment on these issues.

- Recommend that EPA take comment on other monitoring options or approaches, including the following: using longer averaging time periods (or greater frequencies of occurrence) for demonstrating compliance with parameter limits; demonstrating compliance with operating parameter limits using a two-tier approach; and the suitability of other PM control device operating parameters that can be monitored to demonstrate compliance with the PM emission limits, in lieu of or in addition to the parameters currently required in the draft rule.

Response: The preamble of the proposed rule solicited comment on these issues.

- Recommend that the incorporation by reference of Chapters 3 and 5 of the American Conference of Governmental

Industrial Hygienists (ACGIH) Industrial Ventilation manual be removed from the proposed rule.

Response: The proposed rule did not include this requirement. This requirement is also not present in today's final rule.

• Recommend that EPA reevaluate the assumptions used in modeling the economic impacts of the standards and conduct a sensitivity analysis using different price and supply elasticities reflective of the industry's claims that there is little ability to pass on control costs to their customers, and there is considerable opportunity for product substitution in a number of the lime industry's markets.

Response: The EIA does include the aforementioned considerations and analyses at proposal. In addition, we have performed additional economic sensitivity analyses for the final rule.

In summary, to better understand the implications of the proposed rule from the industries' perspective, we engaged with the lime manufacturing companies in an exchange of information, including small entities, during the overall rule development. Prior to convening the Panel, we had worked aggressively to minimize the impact of the proposed rule on small entities, consistent with our obligations under the CAA. These efforts are summarized below.

• Lime manufacturing operations at beet sugar plants, of which three are small businesses, will not be affected sources.

• Lime manufacturing plants that produce hydrated lime only will not be affected sources as well.

• We proposed PM emission limits which allow the affected source, including small entities, flexibility in choosing how they will meet the emission limit. And in general, the emission limitations selected are all based on the MACT floor, as opposed to more costly beyond-the-MACT-floor options that we considered. An emission limit for mercury was rejected since it would have been based on a beyond-the-MACT-floor control option.

• We proposed that compliance demonstrations for PSH operations be conducted monthly rather than on a daily basis. This reduced the amount of records needed to demonstrate compliance with the rule when implemented. Furthermore, we proposed the minimum performance testing frequency (every 5 years), monitoring, recordkeeping, and reporting requirements specified in the General Provisions (40 CFR part 63, subpart A).

• Finally, many lime manufacturing plants owned by small businesses will not be subject to the proposed standards because they are area sources.

We received several comments on the economic analysis for the proposed rule. The majority of these comments related to the analysis in general, rather than the initial regulatory flexibility analysis. Two comments that specifically addressed small business concerns follow.

Comment: One commenter claimed that EPA did not perform a sufficient sensitivity analysis of different price and supply elasticities in the EIA as recommended in the Panel's final report.

Response: We estimated the market supply and demand elasticities for lime. The values from the preferred model for 1997 are very close to the primary elasticities used in the main text of the EIA for the proposed rule and are well within the range of elasticities used in the sensitivity analysis in Appendix B of the EIA for the proposed rule. In addition to the preferred model, numerous alternative models were estimated. As with any modeling exercise, there were some differences in results across different model specifications. However, the results were generally similar across specifications and there were no cases in which the estimated supply or demand elasticity fell outside the ranges currently used in the Appendix B sensitivity analysis included in the EIA. Thus, the current analysis adequately responds to SBREFA panel recommendations that a reasonable sensitivity analysis be employed and the empirical evidence is supportive of the current scenario presented in the main text.

Comment: One commenter claimed that although EPA has indicated its rule will have larger impacts on small businesses than large ones, the disparity is even greater than EPA estimates. The reductions in pre-tax earnings presented in the EIA understate losses for small firms because the costs of implementation will be higher than EPA estimates and the price of lime will not increase. They also state that even if only 2 to 3 of the 14 small lime firms close, that would still be closure of 14 percent to 21 percent of the small lime firms in the domestic industry. This seems to be such a significant economic impact that it should encourage the EPA to seriously consider additional ways to minimize the impact on small businesses.

Response: It is unclear what the basis for the first part of this comment is (it seems the same claims they are making for small firms would also apply to large firms). As far as the second part, to the extent that actual costs differ from EPA estimates, it is possible that the actual losses experienced by firms will be higher or lower than presented in the EIA. However, the costs of implementation currently used for analysis reflect EPA's best estimate of actual costs. The assertion that lime prices cannot increase in response to an increase in production costs is not credible.

We also disagree that the number of small firms at risk of closure, 2 to 3, can be considered a significant number in the context of SBREFA. In any case, EPA has seriously considered ways to minimize the impact on small businesses based on comments from industry and has substantially reduced the costs of the rule relative to the draft of the rule we were considering prior to the small business advocacy review panel. As previously discussed, EPA, along with the SBA and the OMB, convened a panel under the authority of SBREFA to talk with small business representatives on how to mitigate potential impacts to small businesses associated with the lime manufacturing NESHAP. This panel yielded a report that included many recommendations on how potential impacts to small businesses from the proposal could be mitigated. All of these recommendations are reflected in the final rule.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, we generally would be required to prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures by State, local, and tribal governments, in aggregate, or by the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires us to identify and consider a reasonable number of regulatory alternatives and adopt the least-costly, most cost-effective, or least-burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows us to adopt an alternative other than the least-costly, most cost-effective, or least-burdensome alternative if the

Administrator publishes with the final rule an explanation why that alternative was not adopted. Before we establish any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, we would be required to have developed under section 203 of the UMRA a small government agency plan. The plan will be required to provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of our regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

We have determined that the final rule does not contain a Federal mandate that may result in expenditures of $100 million or more by State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. The total cost to the private sector is approximately $22.4 million per year. The final rule contains no mandates affecting State, local, or tribal governments. Thus, today's final rule is not subject to the requirements of sections 202 and 205 of the UMRA.

We have determined that the final rule contains no regulatory requirements that might significantly or uniquely affect small governments because it contains no requirements that apply to such governments or impose obligations upon them.

E. Executive Order 13132, Federalism

Executive Order 13132 (64 FR 43255, August 10, 1999) requires us to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

Under Section 6 of Executive Order 13132, we may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or we consult with State and local officials early in the process of developing the proposed regulation. We also may not issue a regulation that has federalism implications and that preempts State law unless the Agency consults with State and local officials early in the process of developing the proposed regulation.

If we comply by consulting, Executive Order 13132 requires us to provide to OMB, in a separately identified section of the preamble to the rule, a federalism summary impact statement (FSIS). The FSIS would be required to include a description of the extent of our prior consultation with State and local officials, a summary of the nature of their concerns and the agency's position supporting the need to issue the regulation, and a statement of the extent to which the concerns of State and local officials have been met. Also, when we transmit a draft final NESHAP with federalism implications to OMB for review pursuant to Executive Order 12866, we would be required to include a certification from the Agency's Federalism Official stating that we have met the requirements of Executive Order 13132 in a meaningful and timely manner.

The final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. The final rule will not impose directly enforceable requirements on States, nor will it preempt them from adopting their own more stringent programs to control emissions from lime manufacturing facilities. Moreover, States are not required under the CAA to take delegation of Federal NESHAP and bear their implementation costs, although States are encouraged and often choose to do so. Thus, Executive Order 13132 does not apply to the final rule.

F. Executive Order 13175, Consultation and Coordination With Indian Tribal Governments

Executive Order 13175 (65 FR 67249, November 9, 2000) requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." The final rule does not have tribal implications, as specified in Executive Order 13175. There are no lime manufacturing plants located on tribal land. Thus, Executive Order 13175 does not apply to the final rule.

G. Executive Order 13045, Protection of Children From Environmental Health Risks and Safety Risks

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any rule that: (1) is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that we have reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, we would be required to evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by us.

We interpret Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The final rule is not subject to Executive Order 13045 because it is based on technology performance and not on health or safety risks.

H. Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution or Use

The final rule is not a "significant energy action" as defined in Executive Order 13211 (66 FR 28355, May 22, 2001) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Although compliance with the final rule could possibly lead to increased electricity consumption as sources may replace existing wet scrubbers with venturi wet scrubbers that require more electricity, the final rule will not require that venturi scrubbers be installed, and in fact, there are some alternatives that may decrease electrical demand. Further, the final rule will have no effect on the supply or distribution of energy. Although we considered certain fuels as potential bases for MACT, none of our MACT determinations are based on fuels. Finally, we acknowledge that an interpretation limiting fuel use to the top 6 percent of 'clean HAP' fuels (if they existed) could potentially have adverse implications on energy supply.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Pub. L. No. 104–113; 15 U.S.C. 272 note) directs the EPA to use voluntary consensus standards in their regulatory and procurement

activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to the OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

The final rule involves technical standards. The EPA cites the following standards in the final rule: EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 3A, 3B, 4, 5, 5D, 9, 17, 18, 22, 320, 321. Consistent with the NTTAA, EPA conducted searches to identify voluntary consensus standards in addition to these EPA methods. No applicable voluntary consensus standards were identified for EPA Methods 1A, 2A, 2D, 2F, 2G, 5D, 9, 22, and 321. The search and review results have been documented and are placed in the docket (OAR–2002–0052) for the final rule.

The three voluntary consensus standards described below were identified as acceptable alternatives to EPA test methods for the purposes of the final rule.

The voluntary consensus standard ASME PTC 19–10–1981-Part 10, "Flue and Exhaust Gas Analyses," is cited in the final rule for its manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas. This part of ASME PTC 19–10–1981-Part 10 is an acceptable alternative to Method 3B.

The voluntary consensus standard ASTM D6420–99, "Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (GC/MS)," is appropriate in the cases described below for inclusion in the final rule in addition to EPA Method 18 codified at 40 CFR part 60, appendix A, for the measurement of organic HAP from lime kilns.

Similar to EPA's performance-based Method 18, ASTM D6420–99 is also a performance-based method for measurement of gaseous organic compounds. However, ASTM D6420–99 was written to support the specific use of highly portable and automated GC/MS. While offering advantages over the traditional Method 18, the ASTM method does allow some less stringent criteria for accepting GC/MS results than required by Method 18. Therefore, ASTM D6420–99 is a suitable alternative to Method 18 only where the target compound(s) are those listed in Section 1.1 of ASTM D6420–99, and the target concentration is between 150 parts per billion by volume and 100 parts per million by volume.

For target compound(s) not listed in Section 1.1 of ASTM D6420–99, but potentially detected by mass spectrometry, the final rule specifies that the additional system continuing calibration check after each run, as detailed in Section 10.5.3 of the ASTM method, must be followed, met, documented, and submitted with the data report even if there is no moisture condenser used or the compound is not considered water soluble. For target compound(s) not listed in Section 1.1 of ASTM D6420–99, and not amenable to detection by mass spectrometry, ASTM D6420–99 does not apply.

As a result, EPA will cite ASTM D6420–99 in the final rule. The EPA will also cite Method 18 as a GC option in addition to ASTM D6420–99. This will allow the continued use of GC configurations other than GC/MS.

The voluntary consensus standard ASTM D6735–01, "Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources—Impinger Method," is an acceptable alternative to EPA Method 320 for the purposes of the final rule provided that the additional requirements described in Section 63.7142 of the final rule are also addressed in the methodology.

In addition to the voluntary consensus standards EPA uses in the final rule, the search for emissions measurement procedures identified 15 other voluntary consensus standards. The EPA determined that 12 of these 15 standards identified for measuring emissions of the HAP or surrogates subject to emission standards in the final rule were impractical alternatives to EPA test methods for the purposes of this rule. Therefore, EPA does not intend to adopt these standards for this purpose. The reasons for this determination can be found in the docket for the final rule.

Three of the 15 voluntary consensus standards identified in this search were not available at the time the review was conducted for the purposes of the final rule because they are under development by a voluntary consensus body: ASME/BSR MFC 13M, "Flow Measurement by Velocity Traverse," for EPA Method 2 (and possibly 1); ASME/BSR MFC 12M, "Flow in Closed Conduits Using Multiport Averaging Pitot Primary Flowmeters," for EPA Method 2; and ASTM D6348–98, "Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform (FTIR) Spectroscopy," for EPA Method 320.

The standard ASTM D6348–98, "Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform (FTIR) Spectroscopy" has been reviewed by the EPA and comments were sent to ASTM. Currently, the ASTM Subcommittee D22–03 is undertaking a revision of ASTM D6348–98. Upon successful ASTM balloting and demonstration of technical equivalency with the EPA FTIR methods, the revised ASTM standard could be incorporated by reference for EPA regulatory applicability.

Section 63.7112 and Table 4 to subpart AAAAA of 40 CFR part 63 list the EPA testing methods included in the final rule. Under §§ 63.7(f) and 63.8(f) of subpart A of the General Provisions, a source may apply to EPA for permission to use alternative test methods or alternative monitoring requirements in place of any of the EPA testing methods, performance specifications, or procedures.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the SBREFA, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing the final rule and other required information to the U.S Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the final rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2). The final rule will be effective on January 5, 2004.

List of Subjects in 40 CFR Part 63

Administrative practice and procedure, Air pollution control, Environmental protection, Hazardous substances, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: August 25, 2003.

Marianne Lamont Horinko,

Acting Administrator.

■ For the reasons stated in the preamble, title 40, chapter I, part 63 of the Code of the Federal Regulations is to be amended as follows:

PART 63—[AMENDED]

■ 1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

Subpart A—[Amended]

■ 2. Part 63 is amended by adding subpart AAAAA to read as follows:

Subpart AAAAA—National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants

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What This Subpart Covers

§ 63.7080 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for lime manufacturing plants. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§ 63.7081 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate a lime manufacturing plant (LMP) that is a major source, or that is located at, or is part of, a major source of hazardous air pollutant (HAP) emissions, unless the LMP is located at a kraft pulp mill, soda pulp mill, sulfite pulp mill, beet sugar manufacturing plant, or only processes sludge containing calcium carbonate from water softening processes.

(1) An LMP is an establishment engaged in the manufacture of lime product (calcium oxide, calcium oxide with magnesium oxide, or dead burned dolomite) by calcination of limestone, dolomite, shells or other calcareous substances.

(2) A major source of HAP is a plant site that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (10 tons) or more per year or any combination of HAP at a rate of 22.68 megagrams (25 tons) or more per year from all emission sources at the plant site.

(b) [Reserved]

§ 63.7082 What parts of my plant does this subpart cover?

(a) This subpart applies to each existing or new lime kiln(s) and their associated cooler(s), and processed stone handling (PSH) operations system(s) located at an LMP that is a major source.

(b) A new lime kiln is a lime kiln, and (if applicable) its associated lime cooler, for which construction or reconstruction began after December 20, 2002, if you met the applicability criteria in § 63.7081 at the time you began construction or reconstruction.

(c) A new PSH operations system is the equipment in paragraph (g) of this section, for which construction or reconstruction began after December 20, 2002, if you met the applicability criteria in § 63.7081 at the time you began construction or reconstruction.

(d) A lime kiln or PSH operations system is reconstructed if it meets the criteria for reconstruction defined in § 63.2.

(e) An existing lime kiln is any lime kiln, and (if applicable) its associated lime cooler, that does not meet the definition of a new kiln of paragraph (b) of this section.

(f) An existing PSH operations system is any PHS operations system that does not meet the definition of a new PSH operations system in paragraph (c) of this section.

(g) A PSH operations system includes all equipment associated with PSH operations beginning at the processed stone storage bin(s) or open storage pile(s) and ending where the processed stone is fed into the kiln. It includes man-made processed stone storage bins (but not open processed stone storage piles), conveying system transfer points, bulk loading or unloading systems, screening operations, surge bins, bucket elevators, and belt conveyors. No other materials processing operations are subject to this subpart.

(h) Nuisance dust collectors on lime coolers are part of the lime materials processing operations and are not covered by this subpart.

(i) Lime hydrators are not subject to this subpart.

(j) Open material storage piles are not subject to this subpart.

§ 63.7083 When do I have to comply with this subpart?

(a) If you have a new affected source, you must comply with this subpart according to paragraphs (a)(1) and (2) of this section.

(1) If you start up your affected source before January 5, 2004, you must comply with the emission limitations no later than January 5, 2004, and you must have completed all applicable performance tests no later than July 5, 2004.

(2) If you start up your affected source after January 5, 2004, then you must comply with the emission limitations for new affected sources upon startup of your affected source and you must have completed all applicable performance tests no later than 180 days after startup.

(b) If you have an existing affected source, you must comply with the applicable emission limitations for the existing affected source, and you must have completed all applicable performance tests no later than January 5, 2007.

(c) If you have an LMP that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the deadlines specified in paragraphs (c)(1) and (2) of this section apply.

(1) New affected sources at your LMP you must be in compliance with this subpart upon startup.

(2) Existing affected sources at your LMP must be in compliance with this subpart within 3 years after your source becomes a major source of HAP.

(d) You must meet the notification requirements in § 63.7130 according to the schedule in § 63.7130 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limitations in this subpart.

Emission Limitations

§ 63.7090 What emission limitations must I meet?

(a) You must meet each emission limit in Table 1 to this subpart that applies to you.

(b) You must meet each operating limit in Table 2 to this subpart that applies to you.

General Compliance Requirements

§ 63.7100 What are my general requirements for complying with this subpart?

(a) After your initial compliance date, you must be in compliance with the emission limitations (including operating limits) in this subpart at all times, except during periods of startup, shutdown, and malfunction.

(b) You must be in compliance with the opacity and visible emission (VE) limits in this subpart during the times specified in § 63.6(h)(1).

(c) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in § 63.6(e)(1)(i).

(d) You must prepare and implement for each LMP, a written operations, maintenance, and monitoring (OM&M) plan. You must submit the plan to the applicable permitting authority for review and approval as part of the application for a 40 CFR part 70 or 40 CFR part 71 permit. Any subsequent changes to the plan must be submitted to the applicable permitting authority for review and approval. Pending approval by the applicable permitting authority of an initial or amended plan, you must comply with the provisions of the submitted plan. Each plan must contain the following information:

(1) Process and control device parameters to be monitored to determine compliance, along with established operating limits or ranges, as applicable, for each emission unit.

(2) A monitoring schedule for each emission unit.

(3) Procedures for the proper operation and maintenance of each emission unit and each air pollution control device used to meet the applicable emission limitations and operating limits in Tables 1 and 2 to this subpart, respectively.

(4) Procedures for the proper installation, operation, and maintenance of monitoring devices or systems used to determine compliance, including:

(i) Calibration and certification of accuracy of each monitoring device;

(ii) Performance and equipment specifications for the sample interface, parametric signal analyzer, and the data collection and reduction systems;

(iii) Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1), (3), and (4)(ii); and

(iv) Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d).

(5) Procedures for monitoring process and control device parameters.

(6) Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the operating limits specified in Table 2 to this subpart, including:

(i) Procedures to determine and record the cause of a deviation or excursion, and the time the deviation or excursion began and ended; and

(ii) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time and date the corrective action was completed.

(7) A maintenance schedule for each emission unit and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.

(e) You must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in § 63.6(e)(3).

Testing and Initial Compliance Requirements

§ 63.7110 By what date must I conduct performance tests and other initial compliance demonstrations?

(a) If you have an existing affected source, you must complete all applicable performance tests within January 5, 2007, according to the provisions in §§ 63.7(a)(2) and 63.7114.

(b) If you have a new affected source, and commenced construction or reconstruction between December 20, 2002, and January 5, 2004, you must demonstrate initial compliance with either the proposed emission limitation or the promulgated emission limitation no later than 180 calendar days after January 5, 2004 or within 180 calendar days after startup of the source, whichever is later, according to §§ 63.7(a)(2)(ix) and 63.7114.

(c) If you commenced construction or reconstruction between December 20, 2002, and January 5, 2004, and you chose to comply with the proposed emission limitation when demonstrating initial compliance, you must conduct a demonstration of compliance with the promulgated emission limitation within January 5, 2007 or after startup of the source, whichever is later, according to §§ 63.7(a)(2)(ix) and 63.7114.

(d) For each initial compliance requirement in Table 3 to this subpart that applies to you where the monitoring averaging period is 3 hours, the 3-hour period for demonstrating continuous compliance for emission units within existing affected sources at LMP begins at 12:01 a.m. on the compliance date for existing affected sources, that is, the day following completion of the initial compliance demonstration, and ends at 3:01 a.m. on the same day.

(e) For each initial compliance requirement in Table 3 to this subpart that applies to you where the monitoring averaging period is 3 hours, the 3-hour period for demonstrating continuous compliance for emission units within new or reconstructed affected sources at LMP begins at 12:01 a.m. on the day following completion of the initial compliance demonstration, as required in paragraphs (b) and (c) of this section, and ends at 3:01 a.m. on the same day.

§ 63.7111 When must I conduct subsequent performance tests?

You must conduct a performance test within 5 years following the initial performance test and within 5 years following each subsequent performance test thereafter.

§ 63.7112 What performance tests, design evaluations, and other procedures must I use?

(a) You must conduct each performance test in Table 4 to this subpart that applies to you.

(b) Each performance test must be conducted according to the requirements in § 63.7(e)(1) and under the specific conditions specified in Table 4 to this subpart.

(c) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 63.7(e)(1).

(d) Except for opacity and VE observations, you must conduct three separate test runs for each performance test required in this section, as specified in § 63.7(e)(3). Each test run must last at least 1 hour.

(e) The emission rate of particulate matter (PM) from each lime kiln (and each lime cooler if there is a separate exhaust to the atmosphere from the lime cooler) must be computed for each run using Equation 1 of this section:

$$E = (C_k Q_k + C_c Q_c)/PK \qquad \text{(Eq. 1)}$$

Where:

E = Emission rate of PM, pounds per ton (lb/ton) of stone feed.

C_k = Concentration of PM in the kiln effluent, grain/dry standard cubic feet (gr/dscf).

Q_k = Volumetric flow rate of kiln effluent gas, dry standard cubic feet per hour (dscf/hr).

C_c = Concentration of PM in the cooler effluent, grain/dscf. This value is zero if there is not a separate cooler exhaust to the atmosphere.

Q_c = Volumetric flow rate of cooler effluent gas, dscf/hr. This value is zero if there is not a separate cooler exhaust to the atmosphere.

P = Stone feed rate, tons per hour (ton/hr).

K = Conversion factor, 7000 grains per pound (grains/lb).

(f)(1) If you choose to meet a weighted average emission limit as specified in item 4 of Table 1 to this subpart, you must calculate a combined particulate emission rate from all kilns and coolers within your LMP using Equation 2 of this section:

$$E_T = \sum_{i=1}^{n} E_i P_i / \sum_{i=1}^{n} P_i \qquad \text{(Eq. 2)}$$

Where:

E_T = Emission rate of PM from all kilns and coolers, lb/ton of stone feed.

E_i = Emission rate of PM from kiln i, or from kiln/cooler combination i, lb/ton of stone feed.

P_i = Stone feed rate to kiln i, ton/hr.

n = Number of kilns you wish to include in averaging.

(2) You do not have to include every kiln in this calculation, only include kilns you wish to average. Kilns that have a PM emission limit of 0.60 lb/tsf are ineligible for any averaging.

(g) The weighted average PM emission limit from all kilns and coolers for which you are averaging must be calculated using Equation 3 of this section:

$$E_{TN} = \sum_{j=1}^{m} E_j P_j / \sum_{j=1}^{m} P_j \qquad \text{(Eq. 3)}$$

Where:

E_{TN} = Weighted average PM emission limit for all kilns and coolers being included in averaging at the LMP, lb/ton of stone feed.

E_j = PM emission limit (0.10 or 0.12) for kiln j, or for kiln/cooler combination j, lb/ton of stone feed.

P_j = Stone feed rate to kiln j, ton/hr.

m = Number of kilns and kiln/cooler combinations you are averaging at your LMP. You must include the same kilns in the calculation of E_T and E_{TN}. Kilns that have a PM emission limit of 0.60 lb/tsf are ineligible for any averaging.

(h) Performance test results must be documented in complete test reports that contain the information required by paragraphs (h)(1) through (10) of this section, as well as all other relevant information. The plan to be followed during testing must be made available to the Administrator at least 60 days prior to testing.

(1) A brief description of the process and the air pollution control system;

(2) Sampling location description(s);

(3) A description of sampling and analytical procedures and any modifications to standard procedures;

(4) Test results, including opacity;

(5) Quality assurance procedures and results;

(6) Records of operating conditions during the test, preparation of standards, and calibration procedures;

(7) Raw data sheets for field sampling and field and laboratory analyses;

(8) Documentation of calculations;

(9) All data recorded and used to establish operating limits; and

(10) Any other information required by the test method.

(i) [Reserved]

(j) You must establish any applicable 3-hour block average operating limit indicated in Table 2 to this subpart according to the applicable requirements in Table 3 to this subpart and paragraphs (j)(1) through (4) of this section.

(1) Continuously record the parameter during the PM performance test and include the parameter record(s) in the performance test report.

(2) Determine the average parameter value for each 15-minute period of each test run.

(3) Calculate the test run average for the parameter by taking the average of all the 15-minute parameter values for the run.

(4) Calculate the 3-hour operating limit by taking the average of the three test run averages.

(k) For each building enclosing any PSH operations that is subject to a VE limit, you must conduct a VE check according to item 18 in Table 4 to this subpart, and in accordance with paragraphs (k)(1) through (3) of this section.

(1) Conduct visual inspections that consist of a visual survey of the building over the test period to identify if there are VE, other than condensed water vapor.

(2) Select a position at least 15 but not more 1,320 feet from each side of the building with the sun or other light source generally at your back.

(3) The observer conducting the VE checks need not be certified to conduct EPA Method 9 in appendix A to part 60 of this chapter, but must meet the training requirements as described in EPA Method 22 in appendix A to part 60 of this chapter.

(l) When determining compliance with the opacity standards for fugitive emissions from PSH operations in item 7 of Table 1 to this subpart, you must conduct EPA Method 9 in appendix A to part 60 of this chapter according to item 17 in Table 4 to this subpart, and in accordance with paragraphs (l)(1) through (3) of this section.

(1) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

(2) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (*e.g.*, road dust). The required observer position relative to the sun must be followed.

(3) If you use wet dust suppression to control PM from PSH operations, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered VE. When a water mist of this nature is present, you must observe emissions at a point in the plume where the mist is no longer visible.

§ 63.7113 What are my monitoring installation, operation, and maintenance requirements?

(a) You must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to your OM&M plan required by § 63.7100(d) and paragraphs (a)(1) through (5) of this section, and you must install, operate, and maintain each continuous opacity monitoring system (COMS) as required by paragraph (g) of this section

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period.

(2) To calculate a valid hourly value, you must have at least four equally spaced data values (or at least two, if that condition is included to allow for periodic calibration checks) for that hour from a CPMS that is not out of control according your OM&M plan, and use all valid data.

(3) To calculate the average for each 3-hour block averaging period, you must use all valid data, and you must have at least 66 percent of the hourly averages for that period using only hourly average values that are based on valid data (*i.e.*, not from out-of-control periods).

(4) You must conduct a performance evaluation of each CPMS in accordance with your OM&M plan.

(5) You must continuously operate and maintain the CPMS according to the OM&M plan, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(b) For each flow measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and (b)(1) through (4) of this section.

(1) Use a flow sensor with a minimum tolerance of 2 percent of the flow rate.

(2) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(3) Conduct a flow sensor calibration check at least semiannually.

(4) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

(c) For each pressure measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and (c)(1) through (7) of this section.

(1) Locate the pressure sensor(s) in or as close to as possible a position that provides a representative measurement of the pressure.

(2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(3) Use a gauge with a minimum tolerance of 0.5 inch of water or a transducer with a minimum tolerance of 1 percent of the pressure range.

(4) Check pressure tap pluggage daily.

(5) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(6) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(7) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

(d) For each bag leak detection system (BLDS), you must meet any applicable requirements in paragraphs (a)(1) through (5) and (d)(1) through (8) of this section.

(1) The BLDS must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

(2) The sensor on the BLDS must provide output of relative PM emissions.

(3) The BLDS must have an alarm that will sound automatically when it detects an increase in relative PM emissions greater than a preset level.

(4) The alarm must be located in an area where appropriate plant personnel will be able to hear it.

(5) For a positive-pressure fabric filter (FF), each compartment or cell must have a bag leak detector (BLD). For a negative-pressure or induced-air FF, the BLD must be installed downstream of the FF. If multiple BLD are required (for either type of FF), the detectors may share the system instrumentation and alarm.

(6) Bag leak detection systems must be installed, operated, adjusted, and maintained according to the manufacturer's written specifications and recommendations. Standard operating procedures must be incorporated into the OM&M plan.

(7) At a minimum, initial adjustment of the system must consist of establishing the baseline output in both of the following ways:

(i) Adjust the range and the averaging period of the device.

(ii) Establish the alarm set points and the alarm delay time.

(8) After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the OM&M plan required by § 63.7100(d). In no event may the range be increased by more than 100 percent or decreased by more than 50 percent over a 365-day period unless a responsible official, as defined in § 63.2, certifies in writing to the Administrator that the FF has been inspected and found to be in good operating condition.

(e) For each PM detector, you must meet any applicable requirements in paragraphs (a)(1) through (5) and (e)(1) through (8) of this section.

(1) The PM detector must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

(2) The sensor on the PM detector must provide output of relative PM emissions.

(3) The PM detector must have an alarm that will sound automatically when it detects an increase in relative PM emissions greater than a preset level.

(4) The alarm must be located in an area where appropriate plant personnel will be able to hear it.

(5) For a positive-pressure electrostatic precipitator (ESP), each compartment must have a PM detector. For a negative-pressure or induced-air ESP, the PM detector must be installed downstream of the ESP. If multiple PM detectors are required (for either type of ESP), the detectors may share the system instrumentation and alarm.

(6) Particulate matter detectors must be installed, operated, adjusted, and maintained according to the manufacturer's written specifications and recommendations. Standard operating procedures must be incorporated into the OM&M plan.

(7) At a minimum, initial adjustment of the system must consist of establishing the baseline output in both of the following ways:

(i) Adjust the range and the averaging period of the device.

(ii) Establish the alarm set points and the alarm delay time.

(8) After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the OM&M plan required by § 63.7100(d). In no event may the range be increased by more than 100 percent or decreased by more than 50 percent over a 365-day period unless a responsible official as defined in § 63.2 certifies in writing to the Administrator that the ESP has been inspected and found to be in good operating condition.

(f) For each emission unit equipped with an add-on air pollution control device, you must inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating

requirements in item 6 of Table 2 to this subpart and record the results of each inspection.

(g) For each COMS used to monitor an add-on air pollution control device, you must meet the requirements in paragraphs (g)(1) and (2) of this section.

(1) Install the COMS at the outlet of the control device.

(2) Install, maintain, calibrate, and operate the COMS as required by 40 CFR part 63, subpart A, General Provisions and according to Performance Specification (PS)–1 of appendix B to part 60 of this chapter. Facilities that operate COMS installed on or before February 6, 2001, may continue to meet the requirements in effect at the time of COMS installation unless specifically required to re-certify the COMS by their permitting authority.

§ 63.7114 How do I demonstrate initial compliance with the emission limitations standard?

(a) You must demonstrate initial compliance with each emission limit in Table 1 to this subpart that applies to you, according to Table 3 to this subpart. For existing lime kilns and their associated coolers, you may perform VE measurements in accordance with EPA Method 9 of appendix A to part 60 in lieu of installing a COMS or PM detector if any of the conditions in paragraphs (a)(1) through (3) of this section exist:

(1) You use a FF for PM control, and the FF is under positive pressure and has multiple stacks; or

(2) The control device exhausts through a monovent; or

(3) The installation of a COMS in accordance with PS–1 of appendix B to part 60 is infeasible.

(b) You must establish each site-specific operating limit in Table 2 to this subpart that applies to you according to the requirements in § 63.7112(j) and Table 4 to this subpart. Alternative parameters may be monitored if approval is obtained according to the procedures in § 63.8(f)

(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.7130(e).

Continuous Compliance Requirements

§ 63.7120 How do I monitor and collect data to demonstrate continuous compliance?

(a) You must monitor and collect data according to this section.

(b) Except for monitor malfunctions, associated repairs, required quality assurance or control activities (including, as applicable, calibration checks and required zero adjustments), and except for PSH operations subject to monthly VE testing, you must monitor continuously (or collect data at all required intervals) at all times that the emission unit is operating.

(c) Data recorded during the conditions described in paragraphs (c)(1) through (3) of this section may not be used either in data averages or calculations of emission or operating limits; or in fulfilling a minimum data availability requirement. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

(1) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments;

(2) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies; and

(3) Start-ups, shutdowns, and malfunctions.

§ 63.7121 How do I demonstrate continuous compliance with the emission limitations standard?

(a) You must demonstrate continuous compliance with each emission limitation in Tables 1 and 2 to this subpart that applies to you according to the methods specified in Tables 5 and 6 to this subpart.

(b) You must report each instance in which you did not meet each operating limit, opacity limit, and VE limit in Tables 2 and 6 to this subpart that applies to you. This includes periods of startup, shutdown, and malfunction. These instances are deviations from the emission limitations in this subpart. These deviations must be reported according to the requirements in § 63.7131.

(c) You must operate in accordance with the SSMP during periods of startup, shutdown, and malfunction.

(d) Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the SSMP. The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in § 63.6(e).

(e) For each PSH operation subject to an opacity limit as specified in Table 1 to this subpart, and any vents from buildings subject to an opacity limit, you must conduct a VE check according to item 1 in Table 6 to this subpart, and as follows:

(1) Conduct visual inspections that consist of a visual survey of each stack or process emission point over the test period to identify if there are VE, other than condensed water vapor.

(2) Select a position at least 15 but not more 1,320 feet from the affected emission point with the sun or other light source generally at your back.

(3) The observer conducting the VE checks need not be certified to conduct EPA Method 9 in appendix A to part 60 of this chapter, but must meet the training requirements as described in EPA Method 22 of appendix A to part 60 of this chapter.

(f) For existing lime kilns and their associated coolers, you may perform VE measurements in accordance with EPA Method 9 of appendix A to part 60 in lieu of installing a COMS or PM detector if any of the conditions in paragraphs (f)(1) or (3) of this section exist:

(1) You use a FF for PM control, and the FF is under positive pressure and has multiple stacks; or

(2) The control device exhausts through a monovent; or

(3) The installation of a COMS in accordance with PS–1 of appendix B to part 60 is infeasible.

Notification, Reports, and Records

§ 63.7130 What notifications must I submit and when?

(a) You must submit all of the notifications in §§ 63.6(h)(4) and (5); 63.7(b) and (c); 63.8(e); (f)(4) and (6); and 63.9 (a) through (j) that apply to you, by the dates specified.

(b) As specified in § 63.9(b)(2), if you start up your affected source before January 5, 2004, you must submit an initial notification not later than 120 calendar days after January 5, 2004.

(c) If you startup your new or reconstructed affected source on or after January 5, 2004, you must submit an initial notification not later than 120 calendar days after you start up your affected source.

(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin, as required in § 63.7(b)(1).

(e) If you are required to conduct a performance test, design evaluation, opacity observation, VE observation, or other initial compliance demonstration as specified in Table 3 or 4 to this subpart, you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 3 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th calendar day following the completion of the initial compliance demonstration.

(2) For each compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 4 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to § 63.10(d)(2).

§ 63.7131 What reports must I submit and when?

(a) You must submit each report listed in Table 7 to this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report by the date specified in Table 7 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section:

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.7083 and ending on June 30 or December 31, whichever date is the first date following the end of the first half calendar year after the compliance date that is specified for your source in § 63.7083.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first half calendar year after the compliance date that is specified for your affected source in § 63.7083.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to part 70 or part 71 of this chapter, if the permitting authority has established dates for submitting semiannual reports pursuant to §§ 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A) of this chapter, you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates specified in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must contain the information specified in paragraphs (c)(1) through (6) of this section.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a startup, shutdown or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in § 63.10(d)(5)(i).

(5) If there were no deviations from any emission limitations (emission limit, operating limit, opacity limit, and VE limit) that apply to you, the compliance report must include a statement that there were no deviations from the emission limitations during the reporting period.

(6) If there were no periods during which the continuous monitoring systems (CMS) were out-of-control as specified in § 63.8(c)(7), a statement that there were no periods during which the CMS were out-of-control during the reporting period.

(d) For each deviation from an emission limitation (emission limit, operating limit, opacity limit, and VE limit) that occurs at an affected source where you are not using a CMS to comply with the emission limitations in this subpart, the compliance report must contain the information specified in paragraphs (c)(1) through (4) and (d)(1) and (2) of this section. The deviations must be reported in accordance with the requirements in § 63.10(d).

(1) The total operating time of each emission unit during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(e) For each deviation from an emission limitation (emission limit, operating limit, opacity limit, and VE limit) occurring at an affected source where you are using a CMS to comply with the emission limitation in this subpart, you must include the information specified in paragraphs (c)(1) through (4) and (e)(1) through (11) of this section. This includes periods of startup, shutdown, and malfunction.

(1) The date and time that each malfunction started and stopped.

(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time and duration that each CMS was out-of-control, including the information in § 63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(5) A summary of the total duration of the deviations during the reporting period and the total duration as a percent of the total affected source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMS downtime during the reporting period and the total duration of CMS downtime as a percent of the total emission unit operating time during that reporting period.

(8) A brief description of the process units.

(9) A brief description of the CMS.

(10) The date of the latest CMS certification or audit.

(11) A description of any changes in CMS, processes, or controls since the last reporting period.

(f) Each facility that has obtained a title V operating permit pursuant to part 70 or part 71 of this chapter must report all deviations as defined in this subpart in the semiannual monitoring report required by §§ 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A) of this chapter. If you submit a compliance report specified in Table 7 to this subpart along with, or as part of, the semiannual monitoring report required by §§ 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A) of this chapter, and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation you may have to report deviations from permit requirements to the permit authority.

§ 63.7132 What records must I keep?

(a) You must keep the records specified in paragraphs (a)(1) through (3) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in § 63.10(b)(2)(xiv).

(2) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests, performance evaluations, and opacity and VE observations as required in § 63.10(b)(2)(viii).

(b) You must keep the records in § 63.6(h)(6) for VE observations.

(c) You must keep the records required by Tables 5 and 6 to this subpart to show continuous compliance with each emission limitation that applies to you.

(d) You must keep the records which document the basis for the initial applicability determination as required under § 63.7081.

§ 63.7133 In what form and for how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1).

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You may keep the records offsite for the remaining 3 years.

Other Requirements and Information

§ 63.7140 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you. When there is overlap between subpart A and subpart AAAAA, as indicated in the "Explanations" column in Table 8, subpart AAAAA takes precedence.

§ 63.7141 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. EPA, or by a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are as specified in paragraphs (c)(1) through (6) of this section.

(1) Approval of alternatives to the non-opacity emission limitations in § 63.7090(a).

(2) Approval of alternative opacity emission limitations in § 63.7090(a).

(3) Approval of alternatives to the operating limits in § 63.7090(b).

(4) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(5) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(6) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.7142 What are the requirements for claiming area source status?

(a) If you wish to claim that your LMP is an area source, you must measure the emissions of hydrogen chloride from all lime kilns, except as provided in paragraph (c) of this section, at your plant using either:

(1) EPA Method 320 of appendix A to this part,

(2) EPA Method 321 of appendix A to this part, or

(3) ASTM Method D6735–01, Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources—Impinger Method, provided that the provisions in paragraphs (a)(3)(i) through (vi) of this section are followed.

(i) A test must include three or more runs in which a pair of samples is obtained simultaneously for each run according to section 11.2.6 of ASTM Method D6735–01.

(ii) You must calculate the test run standard deviation of each set of paired samples to quantify data precision, according to Equation 1 of this section:

$$RSD_a = (100)\ \text{Absolute Value}\left[\frac{C1_a - C2_a}{C1_a + C2_a}\right] \qquad \text{(Eq. 1)}$$

Where:

RSD_a = The test run relative standard deviation of sample pair a, percent.

$C1_a$ and $C2_a$ = The HCl concentrations, milligram/dry standard cubic meter(mg/dscm), from the paired samples.

(iii) You must calculate the test average relative standard deviation according to Equation 2 of this section:

$$RSD_{TA} = \frac{\sum_{a=1}^{p} RSD_a}{p} \qquad \text{(Eq. 2)}$$

Where:

RSD_{TA} = The test average relative standard deviation, percent.

RSD_a = The test run relative standard deviation for sample pair a.

p = The number of test runs, ≥3.

(iv) If RSD^{TA} is greater than 20 percent, the data are invalid and the test must be repeated.

(v) The post-test analyte spike procedure of section 11.2.7 of ASTM Method D6735–01 is conducted, and the percent recovery is calculated according to section 12.6 of ASTM Method D6735–01.

(vi) If the percent recovery is between 70 percent and 130 percent, inclusive, the test is valid. If the percent recovery is outside of this range, the data are considered invalid, and the test must be repeated.

(b) If you conduct tests to determine the rates of emission of specific organic HAP from lime kilns at LMP for use in applicability determinations under § 63.7081, you may use either:

(1) Method 320 of appendix A to this part, or

(2) Method 18 of appendix A to part 60 of this chapter, or

(3) ASTM D6420–99, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass

Spectrometry (GC/MS), provided that the provisions of paragraphs (b)(3)(i) through (iv) of this section are followed:

(i) The target compound(s) are those listed in section 1.1 of ASTM D6420–99;

(ii) The target concentration is between 150 parts per billion by volume and 100 parts per million by volume;

(iii) For target compound(s) not listed in Table 1.1 of ASTM D6420–99, but potentially detected by mass spectrometry, the additional system continuing calibration check after each run, as detailed in section 10.5.3 of ASTM D6420–99, is conducted, met, documented, and submitted with the data report, even if there is no moisture condenser used or the compound is not considered water soluble; and

(iv) For target compound(s) not listed in Table 1.1 of ASTM D6420–99, and not amenable to detection by mass spectrometry, ASTM D6420–99 may not be used.

(c) It is left to the discretion of the permitting authority whether or not idled kilns must be tested for (HCl) to claim area source status. If the facility has kilns that use common feed materials and fuel, are essentially identical in design, and use essentially identical emission controls, the permitting authority may also determine if one kiln can be tested, and the HCl emissions for the other essentially identical kilns be estimated from that test.

§ 63.7143 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, in § 63.2, and in this section as follows:

Bag leak detector system (BLDS) is a type of PM detector used on FF to identify an increase in PM emissions resulting from a broken filter bag or other malfunction and sound an alarm.

Belt conveyor means a conveying device that transports *processed stone* from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

Bucket elevator means a *processed stone* conveying device consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.

Building means any frame structure with a roof.

Capture system means the equipment (including enclosures, hoods, ducts, fans, dampers, *etc.*) used to capture and transport PM to a control device.

Control device means the air pollution control equipment used to reduce PM emissions released to the atmosphere from one or more process operations at an LMP.

Conveying system means a device for transporting *processed stone* from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to feeders, belt conveyors, bucket elevators and pneumatic systems.

Deviation means any instance in which an affected source, subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation (including any operating limit);

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation (including any operating limit) in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is allowed by this subpart.

Emission limitation means any emission limit, opacity limit, operating limit, or VE limit.

Emission unit means a lime kiln, lime cooler, storage bin, conveying system transfer point, bulk loading or unloading operation, bucket elevator or belt conveyor at an LMP.

Fugitive emission means PM that is not collected by a capture system.

Hydrator means the device used to produce hydrated lime or calcium hydroxide via the chemical reaction of the lime product with water.

Lime cooler means the device external to the lime kiln (or part of the lime kiln itself) used to reduce the temperature of the lime produced by the kiln.

Lime kiln means the device, including any associated preheater, used to produce a lime product from stone feed by calcination. Kiln types include, but are not limited to, rotary kiln, vertical kiln, rotary hearth kiln, double-shaft vertical kiln, and fluidized bed kiln.

Lime manufacturing plant (LMP) means any plant which uses a lime kiln to produce lime product from limestone or other calcareous material by calcination.

Lime product means the product of the lime kiln calcination process including, calcitic lime, dolomitic lime, and dead-burned dolomite.

Limestone means the material comprised primarily of calcium carbonate (referred to sometimes as calcitic or high calcium limestone), magnesium carbonate, and/or the double carbonate of both calcium and magnesium (referred to sometimes as dolomitic limestone or dolomite).

Monovent means an exhaust configuration of a building or emission control device (*e.g.*, positive pressure FF) that extends the length of the structure and has a width very small in relation to its length (*i.e.*, length-to-width ratio is typically greater than 5:1). The exhaust may be an open vent with or without a roof, louvered vents, or a combination of such features.

Particulate matter (PM) detector means a system that is continuously capable of monitoring PM loading in the exhaust of FF or ESP in order to detect bag leaks, upset conditions, or control device malfunctions and sounds an alarm at a preset level. A PM detector system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other effects to continuously monitor relative particulate loadings. A BLDS is a type of PM detector.

Positive pressure FF or ESP means a FF or ESP with the fan(s) on the upstream side of the control device.

Process stone handling operations means the equipment and transfer points between the equipment used to transport *processed stone*, and includes, storage bins, conveying system transfer points, bulk loading or unloading systems, screening operations, bucket elevators, and belt conveyors.

Processed stone means limestone or other calcareous material that has been processed to a size suitable for feeding into a lime kiln.

Screening operation means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series and retaining oversize material on the mesh surfaces (screens).

Stack emissions means the PM that is released to the atmosphere from a capture system or control device.

Storage bin means a manmade enclosure for storage (including surge bins) of *processed stone* prior to the lime kiln.

Transfer point means a point in a conveying operation where the material is transferred to or from a belt conveyor.

Vent means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying PM emissions from one or more emission units.

Tables to Subpart AAAAA of Part 63

TABLE 1 TO SUBPART AAAAA OF PART 63.—EMISSION LIMITS

[As required in § 63.7090(a), you must meet each emission limit in the following table that applies to you.]

For . . .	You must meet the following emission limit
1. Existing lime kilns and their associated lime coolers that did not have a wet scrubber installed and operating prior to January 5, 2004.	PM emissions must not exceed 0.12 pounds per ton of stone feed (lb/tsf).
2. Existing lime kilns and their associated lime coolers that have a wet scrubber, where the scrubber itself was installed and operating prior to January 5, 2004.	PM emissions must not exceed 0.60 lb/tsf. If at any time after January 5, 2004 the kiln changes to a dry control system, then the PM emission limit in item 1 of this Table 1 applies, and the kiln is hereafter ineligible for the PM emission limit in item 2 of this Table 1 regardless of the method of PM control.
3. New lime kilns and their associated lime coolers	PM emissions must not exceed 0.10 lb/tsf.
4. All existing and new lime kilns and their associated coolers at your LMP, and you choose to average PM emissions, except that any kiln that is allowed to meet the 0.60 lb/tsf PM emission limit is ineligible for averaging.	Weighted average PM emissions calculated according to Eq. 2 in § 63.7112 must not exceed 0.12 lb/tsf (if you are averaging only existing kilns) or 0.10 lb/tsf (if you are averaging only new kilns). If you are averaging existing and new kilns, your weighted average PM emissions must not exceed the weighted average emission limit calculated according to Eq. 3 in § 63.7112, except that no new kiln and its associated cooler considered alone may exceed an average PM emissions limit of 0.10 lb/tsf.
5. Stack emissions from all PSH operations at a new or existing affected source.	PM emissions must not exceed 0.05 grams per dry standard cubic meter (g/dscm).
6. Stack emissions from all PSH operations at a new or existing affected source, unless the stack emissions are discharged through a wet scrubber control device.	Emissions must not exceed 7 percent opacity.
7. Fugitive emissions from all PSH operations at a new or existing affected source, except as provided by item 8 of this Table 1.	Emissions must not exceed 10 percent opacity.
8. All PSH operations at a new or existing affected source enclosed in a building.	All of the individually affected PSH operations must comply with the applicable PM and opacity emission limitations in items 5 through 7 of this Table 1, or the building must comply with the following: There must be no VE from the building, except from a vent; and vent emissions must not exceed the stack emissions limitations in items 5 and 6 of this Table 1.
9. Each FF that controls emissions from only an individual, enclosed storage bin.	Emissions must not exceed 7 percent opacity.
10. Each set of multiple storage bins at a new or existing affected source, with combined stack emissions.	You must comply with the emission limits in items 5 and 6 of this Table 1.

TABLE 2 TO SUBPART AAAAA OF PART 63.—OPERATING LIMITS

[As required in § 63.7090(b), you must meet each operating limit in the following table that applies to you.

For . . .	You must . . .
1. Each lime kiln and each lime cooler (if there is a separate exhaust to the atmosphere from the associated lime cooler) equipped with an FF.	Maintain and operate the FF such that the BLDS or PM detector alarm condition does not exist for more than 5 percent of the total operating time in a 6-month period; and comply with the requirements in § 63.7113(d) through (f) and Table 5 to this subpart. In lieu of a BLDS or PM detector maintain the FF such that the 6-minute average opacity for any 6-minute block period does not exceed 15 percent; and comply with the requirements in § 63.7113(f) and (g) and Table 5 to this subpart.
2. Each lime kiln equipped with a wet scrubber	Maintain the 3-hour block exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the most recent PM performance test; and maintain the 3-hour block scrubbing liquid flow rate greater than the flow rate operating limit established during the most recent performance test.
3. Each lime kiln equipped with an electrostatic precipitator	Install a PM detector and maintain and operate the ESP such that the PM detector alarm is not activated and alarm condition does not exist for more than 5 percent of the total operating time in a 6-month period, and comply with § 63.7113(e); or, maintain the ESP such that the 6-minute average opacity for any 6-minute block period does not exceed 15 percent, and comply with the requirements in § 63.7113(g); and comply with the requirements in § 63.7113(f) and Table 5 to this subpart.
4. Each PSH operation subject to a PM limit which uses a wet scrubber.	Maintain the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintain the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test.

TABLE 2 TO SUBPART AAAAA OF PART 63.—OPERATING LIMITS—Continued

[As required in § 63.7090(b), you must meet each operating limit in the following table that applies to you.

For . . .	You must . . .
5. All affected sources	Prepare a written OM&M plan; the plan must include the items listed in § 63.7100(d) and the corrective actions to be taken when required in Table 5 to this subpart.
6. Each emission unit equipped with an add-on air pollution control device.	a. Vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to an FF; and b. Operate each capture/collection system according to the procedures and requirements in the OM&M plan.

TABLE 3 TO SUBPART AAAAA OF PART 63.—INITIAL COMPLIANCE WITH EMISSION LIMITS

[As required in § 63.7114, you must demonstrate initial compliance with each emission limitation that applies to you, according to the following table.]

For . . .	For the following emission limit . . .	You have demonstrated initial compliance, if after following the requirements in § 63.7112 . . .
1. All new or existing lime kilns and their associated lime coolers (kilns/coolers).	PM emissions must not exceed 0.12 lb/tsf for all existing kilns/coolers with dry controls, 0.60 lb/tsf for existing kilns/coolers with wet scrubbers, 0.10 lb/tsf for all new kilns/coolers, or a weighted average calculated according to Eq. 3 in § 63.7112.	The kiln outlet PM emissions (and if applicable, summed with the separate cooler PM emissions), based on the PM emissions measured using Method 5 in appendix A to part 60 of this chapter and the stone feed rate measurement over the period of initial performance test, do not exceed the emission limit; if the lime kiln is controlled by an FF or ESP and you are opting to monitor PM emissions with a BLDS or PM detector, you have installed and are operating the monitoring device according to the requirements in § 63.7113(d) or (e), respectively; and if the lime kiln is controlled by an FF or ESP and you are opting to monitor PM emissions using a COMS, you have installed and are operating the COMS according to the requirements in § 63.7113(g).
2. Stack emissions from all PHS operations at a new or existing affected source.	PM emissions must not exceed 0.05 g/dscm ..	The outlet PM emissions, based on Method 5 or Method 17 in appendix A to part 60 of this chapter, over the period of the initial performance test do not exceed 0.05 g/dscm; and if the emission unit is controlled with a wet scrubber, you have a record of the scrubber's pressure drop and liquid flow rate operating parameters over the 3-hour performance test during which emissions did not exceed the emissions limitation.
3. Stack emissions from all PSH operations at a new or existing affected source, unless the stack emissions are discharged through a wet scrubber control device.	Emissions must not exceed 7 percent opacity	Each of the thirty 6-minute opacity averages during the initial compliance period, using Method 9 in appendix A to part 60 of this chapter, does not exceed the 7 percent opacity limit. At least thirty 6-minute averages must be obtained.
4. Fugitive emissions from all PSH operations at a new or existing affected source.	Emissions must not exceed 10 percent opacity.	Each of the 6-minute opacity averages during the initial compliance period, using Method 9 in appendix A to part 60 of this chapter, does not exceed the 10 percent opacity limit.
5. All PSH operations at a new or existing affected source, enclosed in building.	All of the individually affected PSH operations must comply with the applicable PM and opacity emission limitations for items 2 through 4 of this Table 3, or the building must comply with the following: There must be no VE from the building, except from a vent, and vent emissions must not exceed the emission limitations in items 2 and 3 of this Table 3.	All the PSH operations enclosed in the building have demonstrated initial compliance according to the applicable requirements for items 2 through 4 of this Table 3; or if you are complying with the building emission limitations, there are no VE from the building according to item 18 of Table 4 to this subpart and § 63.7112(k), and you demonstrate initial compliance with applicable building vent emissions limitations according to the requirements in items 2 and 3 of this Table 3.

TABLE 3 TO SUBPART AAAAA OF PART 63.—INITIAL COMPLIANCE WITH EMISSION LIMITS—Continued

[As required in § 63.7114, you must demonstrate initial compliance with each emission limitation that applies to you, according to the following table.]

For . . .	For the following emission limit . . .	You have demonstrated initial compliance, if after following the requirements in § 63.7112 . . .
6. Each FF that controls emissions from only an individual storage bin.	Emissions must not exceed 7 percent opacity	Each of the ten 6-minute averages during the 1-hour initial compliance period, using Method 9 in appendix A to part 60 of this chapter, does not exceed the 7 percent opacity limit.
7. Each set of multiple storage bins with combined stack emissions.	You must comply with emission limitations in items 2 and 3 of this Table 3.	You demonstrate initial compliance according to the requirements in items 2 and 3 of this Table 3.

TABLE 4 TO SUBPART AAAAA OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS

[As required in § 63.7112, you must conduct each performance test in the following table that applies to you.]

For . . .	You must . . .	Using . . .	According to the following requirements . . .
1. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler.	Select the location of the sampling port and the number of traverse ports.	Method 1 or 1A of appendix A to part 60 of this chapter; and § 63.6(d)(1)(i).	Sampling sites must be located at the outlet of the control device(s) and prior to any releases to the atmosphere.
2. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler.	Determine velocity and volumetric flow rate.	Method 2, 2A, 2C, 2D, 2F, or 2G in appendix A to part 60 of this chapter.	Not applicable.
3. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler.	Conduct gas molecular weight analysis.	Method 3, 3A, or 3B in appendix A to part 60 of this chapter.	Not applicable.
4. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler.	Measure moisture content of the stack gas.	Method 4 in appendix A to part 60 of this chapter.	Not applicable.
5. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler, and which uses a negative pressure PM control device.	Measure PM emissions	Method 5 in appendix A to part 60 of this chapter.	Conduct the test(s) when the source is operating at representative operating conditions in accordance with § 63.7(e); the minimum sampling volume must be 0.85 dry standard cubic meter (dscm) (30 dry standard cubic foot (dscf)); if there is a separate lime cooler exhaust to the atmosphere, you must conduct the Method 5 test of the cooler exhaust concurrently with the kiln exhaust test.
6. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler, and which uses a positive pressure FF or ESP.	Measure PM emissions	Method 5D in appendix A to part 60 of this chapter.	Conduct the test(s) when the source is operating at representative operating conditions in accordance with § 63.7(e); if there is a separate lime cooler exhaust to the atmosphere, you must conduct the Method 5 test of the separate cooler exhaust concurrently with the kiln exhaust test.
7. Each lime kiln	Determine the mass rate of stone feed to the kiln during the kiln PM emissions test.	Any suitable device	Calibrate and maintain the device according to manufacturer's instructions; the measuring device used must be accurate to within ±5 percent of the mass rate of stone feed over its operating range.

TABLE 4 TO SUBPART AAAAA OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS—Continued

[As required in § 63.7112, you must conduct each performance test in the following table that applies to you.]

For . . .	You must . . .	Using . . .	According to the following requirements . . .
8. Each lime kiln equipped with a wet scrubber.	Establish the operating limit for the average gas stream pressure drop across the wet scrubber.	Data for the gas stream pressure drop measurement device during the kiln PM performance test.	The continuous pressure drop measurement device must be accurate within plus or minus 1 percent; you must collect the pressure drop data during the period of the performance test and determine the operating limit according to § 63.7112(j).
9. Each lime kiln equipped with a wet scrubber.	Establish the operating limit for the average liquid flow rate to the scrubber.	Data from the liquid flow rate measurement device during the kiln PM performance test.	The continuous scrubbing liquid flow rate measuring device must be accurate within plus or minus 1 percent; you must collect the flow rate data during the period of the performance test and determine the operating limit according to § 63.7112(j).
10. Each lime kiln equipped with a FF or ESP that is monitored with a PM detector.	Have installed and have operating the BLDS or PM detector prior to the performance test.	Standard operating procedures incorporated into the OM&M plan.	According to the requirements in § 63.7113(d) or (e), respectively.
11. Each lime kiln equipped with a FF or ESP that is monitored with a COMS.	Have installed and have operating the COMS prior to the performance test.	Standard operating procedures incorporated into the OM&M plan and as required by 40 CFR part 63, subpart A, General Provisions and according to PS–1 of appendix B to part 60 of this chapter, except as specified in § 63.7113(g)(2).	According to the requirements in § 63.7113(g).
12. Each stack emission from a PSH operation, vent from a building enclosing a PSH operation, or set of multiple storage bins with combined stack emissions, which is subject to a PM emission limit.	Measure PM emissions	Method 5 or Method 17 in appendix A to part 60 of this chapter.	The sample volume must be at least 1.70 dscm (60 dscf); for Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters; and if the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter (Method 17 may be used only with exhaust gas temperatures of not more than 250 °F).
13. Each stack emission from a PSH operation, vent from a building enclosing a PSH operation, or set of multiple storage bins with combined stack emissions, which is subject to an opacity limit.	Conduct opacity observations	Method 9 in appendix A to part 60 of this chapter.	The test duration must be for at least 3 hours and you must obtain at least thirty, 6-minute averages.
14. Each stack emissions source from a PSH operation subject to a PM or opacity limit, which uses a wet scrubber.	Establish the average gas stream pressure drop across the wet scrubber.	Data for the gas stream pressure drop measurement device during the PSH operation stack PM performance test.	The pressure drop measurement device must be accurate within plus or minus 1 percent; you must collect the pressure drop data during the period of the performance test and determine the operating limit according to § 63.7112(j).
15. Each stack emissions source from a PSH operation subject to a PM or opacity limit, which uses a wet scrubber.	Establish the operating limit for the average liquid flow rate to the scrubber.	Data from the liquid flow rate measurement device during the PSH operation stack PM performance test.	The continuous scrubbing liquid flow rate measuring device must be accurate within plus or minus 1 percent; you must collect the flow rate data during the period of the performance test and determine the operating limit according to § 63.7112(j).

TABLE 4 TO SUBPART AAAAA OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS—Continued

[As required in §63.7112, you must conduct each performance test in the following table that applies to you.]

For . . .	You must . . .	Using . . .	According to the following requirements . . .
16. Each FF that controls emissions from only an individual, enclosed, new or existing storage bin.	Conduct opacity observations	Method 9 in appendix A to part 60 of this chapter.	The test duration must be for at least 1 hour and you must obtain ten 6-minute averages.
17. Fugitive emissions from any PSH operation subject to an opacity limit.	Conduct opacity observations	Method 9 in appendix A to part 60 of this chapter.	The test duration must be for at least 3 hours, but the 3-hour test may be reduced to 1 hour if, during the first 1-hour period, there are no individual readings greater than 10 percent opacity and there are no more than three readings of 10 percent during the first 1-hour period.
18. Each building enclosing any PSH operation, that is subject to a VE limit.	Conduct VE check	The specifications in §63.7112(k)	The performance test must be conducted while all affected PSH operations within the building are operating; the performance test for each affected building must be at least 75 minutes, with each side of the building and roof being observed for at least 15 minutes.

TABLE 5 TO SUBPART AAAAA OF PART 63.—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS

[As required in §63.7121, you must demonstrate continuous compliance with each operating limit that applies to you, according to the following table.]

For . . .	For the following operating limit . . .	You must demonstrate continuous compliance by . . .
1. Each lime kiln controlled by a wet scrubber	Maintain the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintain the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test.	Collecting the wet scrubber operating data according to all applicable requirements in §63.7113 and reducing the data according to §63.7113(a); maintaining the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintaining the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test (the continuous scrubbing liquid flow rate measuring device must be accurate within ±1% and the continuous pressure drop measurement device must be accurate within ±1%).
2. Each lime kiln or lime cooler equipped with a FF and using a BLDS, and each lime kiln equipped with an ESP or FF using a PM detector.	a. Maintain and operate the FF or ESP such that the bag leak or PM detector alarm, is not activated and alarm condition does not exist for more than 5 percent of the total operating time in each 6-month period.	(i) Operating the FF or ESP so that the alarm on the bag leak or PM detection system is not activated and an alarm condition does not exist for more than 5 percent of the total operating time in each 6-month reporting period; and continuously recording the output from the BLD or PM detection system; and (ii) Each time the alarm sounds and the owner or operator initiates corrective actions within 1 hour of the alarm, 1 hour of alarm time will be counted (if the owner or operator takes longer than 1 hour to initiate corrective actions, alarm time will be counted as the actual amount of time taken by the owner or operator to initiate corrective actions); if inspection of the FF or ESP system demonstrates that no corrective actions are necessary, no alarm time will be counted.

TABLE 5 TO SUBPART AAAAA OF PART 63.—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS—Continued

[As required in §63.7121, you must demonstrate continuous compliance with each operating limit that applies to you, according to the following table.]

For . . .	For the following operating limit . . .	You must demonstrate continuous compliance by . . .
3. Each stack emissions source from a PSH operation subject to an opacity limit, which is controlled by a wet scrubber.	Maintain the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintain the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test.	Collecting the wet scrubber operating data according to all applicable requirements in §63.7113 and reducing the data according to §63.7113(a); maintaining the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintaining the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test (the continuous scrubbing liquid flow rate measuring device must be accurate within ±1% and the continuous pressure drop measurement device must be accurate within ±1%).
4. For each lime kiln or lime cooler equipped with a FF or an ESP that uses a COMS as the monitoring device.	a. Maintain and operate the FF or ESP such that the average opacity for any 6-minute block period does not exceed 15 percent.	i. Installing, maintaining, calibrating and operating a COMS as required by 40 CFR part 63, subpart A, General Provisions and according to PS–1 of appendix B to part 60 of this chapter, except as specified in §63.7113(g)(2); and ii. Collecting the COMS data at a frequency of at least once every 15 seconds, determining block averages for each 6-minute period and demonstrating for each 6-minute block period the average opacity does not exceed 15 percent.

TABLE 6 TO SUBPART AAAAA OF PART 63.—PERIODIC MONITORING FOR COMPLIANCE WITH OPACITY AND VISIBLE EMISSIONS LIMITS

[As required in §63.7121 you must periodically demonstrate compliance with each opacity and VE limit that applies to you, according to the following table]

For . . .	For the following emission limitation . . .	You must demonstrate ongoing compliance . . .
1. Each PSH operation subject to an opacity limitation as required in Table 1 to this subpart, or any vents from buildings subject to an opacity limitation.	a. 7–10 percent opacity, depending on the PSH operation, as required in Table 1 to this subpart.	(i) Conducting a monthly 1-minute VE check of each emission unit in accordance with §63.7121(e); the check must be conducted while the affected source is in operation; (ii) If no VE are observed in 6 consecutive monthly checks for any emission unit, you may decrease the frequency of VE checking from monthly to semi-annually for that emission unit; if VE are observed during any semiannual check, you must resume VE checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks; (iii) If no VE are observed during the semi-annual check for any emission unit, you may decrease the frequency of VE checking from semi-annually to annually for that emission unit; if VE are observed during any annual check, you must resume VE checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks; and

TABLE 6 TO SUBPART AAAAA OF PART 63.—PERIODIC MONITORING FOR COMPLIANCE WITH OPACITY AND VISIBLE EMISSIONS LIMITS—Continued

[As required in § 63.7121 you must periodically demonstrate compliance with each opacity and VE limit that applies to you, according to the following table]

For . . .	For the following emission limitation . . .	You must demonstrate ongoing compliance . . .
2. Any building subject to a VE limit, according to item 8 of Table 1 to this subpart.	a. No VE	(iv) If VE are observed during any VE check, you must conduct a 6-minute test of opacity in accordance with Method 9 of appendix A to part 60 of this chapter; you must begin the Method 9 test within 1 hour of any observation of VE and the 6-minute opacity reading must not exceed the applicable opacity limit. (i) Conducting a monthly VE check of the building, in accordance with the specifications in § 63.7112(k); the check must be conducted while all the enclosed PSH operations are operating; (ii) The check for each affected building must be at least 5 minutes, with each side of the building and roof being observed for at least 1 minute; (iii) If no VE are observed in 6 consecutive monthly checks of the building, you may decrease the frequency of checking from monthly to semi-annually for that affected source; if VE are observed during any semi-annual check, you must resume checking on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks; and (iv) If no VE are observed during the semi-annual check, you may decrease the frequency of checking from semi-annually to annually for that affected source; and if VE are observed during any annual check, you must resume checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks (the source is in compliance if no VE are observed during any of these checks).

TABLE 7 TO SUBPART AAAAA OF PART 63.—REQUIREMENTS FOR REPORTS

[As required in § 63.7131, you must submit each report in this table that applies to you.]

You must submit a . . .	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. If there are no deviations from any emission limitations (emission limit, operating limit, opacity limit, and VE limit) that applies to you, a statement that there were no deviations from the emission limitations during the reporting period;	Semiannually according to the requirements in § 63.7131(b).
	b. If there were no periods during which the CMS, including any operating parameter monitoring system, was out-of-control as specified in § 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period;	Semiannually according to the requirements in § 63.7131(b).
	c. If you have a deviation from any emission limitation (emission limit, operating limit, opacity limit, and VE limit) during the reporting period, the report must contain the information in § 63.7131(d);	Semiannually according to the requirements in § 63.7131(b).
	d. If there were periods during which the CMS, including any operating parameter monitoring system, was out-of-control, as specified in § 63.8(c)(7), the report must contain the information in § 63.7131(e); and	Semiannually according to the requirements in § 63.7131(b).

TABLE 7 TO SUBPART AAAAA OF PART 63.—REQUIREMENTS FOR REPORTS—Continued

[As required in § 63.7131, you must submit each report in this table that applies to you.]

You must submit a . . .	The report must contain . . .	You must submit the report . . .
	e. If you had a startup, shutdown or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in § 63.10(d)(5)(i).	Semiannually according to the requirements in § 63.7131(b).
2. An immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your SSMP.	Actions taken for the event	By fax or telephone within 2 working days after starting actions inconsistent with the SSMP.
3. An immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your SSMP.	The information in § 63.10(d)(5)(ii)	By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority. See § 63.10(d)(5)(ii).

TABLE 8 TO SUBPART AAAAA OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART AAAAA

[As required in § 63.7140, you must comply with the applicable General Provisions requirements according to the following table.]

Citation	Summary of requirement	Am I subject to this requirement?	Explanations
§ 63.1(a)(1)–(4)	Applicability	Yes.	
§ 63.1(a)(5)		No.	
§ 63.1(a)(6)	Applicability	Yes.	
§ 63.1(a)(7)–(a)(9)		No.	
§ 63.1(a)(10)–(a)(14)	Applicability	Yes.	
§ 63.1(b)(1)	Initial Applicability Determination	Yes	§§ 63.7081 and 63.7142 specify additional applicability determination requirements.
§ 63.1(b)(2)		No.	
§ 63.1(b)(3)	Initial Applicability Determination	Yes.	
§ 63.1(c)(1)	Applicability After Standard Established.	Yes.	
§ 63.1(c)(2)	Permit Requirements	No	Area sources not subject to subpart AAAAA, except all sources must make initial applicability determination.
§ 63.1(c)(3)		No.	
§ 63.1(c)(4)–(5)	Extensions, Notifications	Yes.	
§ 63.1(d)		No.	
§ 63.1(e)	Applicability of Permit Program	Yes.	
§ 63.2	Definitions		Additional definitions in § 63.7143.
§ 63.3(a)–(c)	Units and Abbreviations	Yes.	
§ 63.4(a)(1)–(a)(2)	Prohibited Activities	Yes.	
§ 3.4(a)(3)–(a)(5)		No.	
§ 63.4(b)–(c)	Circumvention, Severability	Yes.	
§ 63.5(a)(1)–(2)	Construction/Reconstruction	Yes.	
§ 63.5(b)(1)	Compliance Dates	Yes.	
§ 63.5(b)(2)		No.	
§ 63.5(b)(3)–(4)	Construction Approval, Applicability	Yes.	
§ 63.5(b)(5)		No.	
§ 63.5(b)(6)	Applicability	Yes.	
§ 63.5(c)		No.	
§ 63.5(d)(1)–(4)	Approval of Construction/Reconstruction.	Yes.	
§ 63.5(e)	Approval of Construction/Reconstruction.	Yes.	
§ 63.5(f)(1)–(2)	Approval of Construction/Reconstruction.	Yes.	
§ 63.6(a)	Compliance for Standards and Maintenance.	Yes.	
§ 63.6(b)(1)–(5)	Compliance Dates	Yes.	
§ 63.6(b)(6)		No.	
§ 63.6(b)(7)	Compliance Dates	Yes.	
§ 63.6(c)(1)–(2)	Compliance Dates	Yes.	
§ 63.6(c)(3)–(c)(4)		No.	
§ 63.6(c)(5)	Compliance Dates	Yes.	
§ 63.6(d)		No.	
§ 63.6(e)(1)	Operation & Maintenance	Yes	See § 63.7100 for OM&M requirements.
§ 63.6(e)(2)		No.	

TABLE 8 TO SUBPART AAAAA OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART AAAAA—Continued

[As required in §63.7140, you must comply with the applicable General Provisions requirements according to the following table.]

Citation	Summary of requirement	Am I subject to this requirement?	Explanations
§63.6(e)(3)	Startup, Shutdown Malfunction Plan ..	Yes.	
§63.6(f)(1)–(3)	Compliance with Emission Standards	Yes.	
§63.6(g)(1)–(g)(3)	Alternative Standard	Yes.	
§63.6(h)(1)–(2)	Opacity/VE Standards	Yes.	
§63.6(h)(3)		No.	
§63.6(h)(4)–(h)(5)(i)	Opacity/VE Standards	Yes	This requirement only applies to opacity and VE performance checks required in Table 4 to subpart AAAAA.
§63.6(h)(5) (ii)–(iii)	Opacity/VE Standards	No	Test durations are specified in subpart AAAAA; subpart AAAAA takes precedence.
§63.6(h)(5)(iv)	Opacity/VE Standards	No.	
§63.6(h)(5)(v)	Opacity/VE Standards	Yes.	
§63.6(h)(6)	Opacity/VE Standards	Yes.	
§63.6(h)(7)	COM Use	Yes.	
§63.6(h)(8)	Compliance with Opacity and VE	Yes.	
§63.6(h)(9)	Adjustment of Opacity Limit	Yes.	
§63.6(i)(1)–(i)(14)	Extension of Compliance	Yes.	
§63.6(i)(15)		No.	
§63.6(i)(16)	Extension of Compliance	Yes.	
§63.6(j)	Exemption from Compliance	Yes.	
§63.7(a)(1)–(a)(3)	Performance Testing Requirements	Yes	§63.7110 specifies deadlines; §63.7112 has additional specific requirements.
§63.7(b)	Notification	Yes.	
§63.7(c)	Quality Assurance/Test Plan	Yes.	
§63.7(d)	Testing Facilities	Yes.	
§63.7(e)(1)–(4)	Conduct of Tests	Yes.	
§63.7(f)	Alternative Test Method	Yes.	
§63.7(g)	Data Analysis	Yes.	
§63.7(h)	Waiver of Tests	Yes.	
§63.8(a)(1)	Monitoring Requirements	Yes	See §63.7113.
§63.8(a)(2)	Monitoring	Yes.	
§63.8(a)(3)		No.	
§63.8(a)(4)	Monitoring	No	Flares not applicable.
§63.8(b)(1)–(3)	Conduct of Monitoring	Yes.	
§63.8(c)(1)–(3)	CMS Operation/Maintenance	Yes.	
§63.8(c)(4)	CMS Requirements	No	See §63.7121.
§63.8(c)(4)(i)–(ii)	Cycle Time for COM and CEMS	Yes	No CEMS are required under subpart AAAAA; see §63.7113 for CPMS requirements.
§63.8(c)(5)	Minimum COM procedures	Yes	COM not required.
§63.8(c)(6)	CMS Requirements	No	See §63.7113.
§63.8(c)(7)–(8)	CMS Requirements	Yes.	
§63.8(d)	Quality Control	No	See §63.7113.
§63.8(e)	Performance Evaluation for CMS	No.	
§63.8(f)(1)–(f)(5)	Alternative Monitoring Method	Yes.	
§63.8(f)(6)	Alternative to Relative Accuracy test ..	No.	
§63.8(g)(1)–(g)(5)	Data Reduction; Data That Cannot Be Used.	No	See data reduction requirements in §§63.7120 and 63.7121.
§63.9(a)	Notification Requirements	Yes	See §63.7130.
§63.9(b)	Initial Notifications	Yes.	
§63.9(c)	Request for Compliance Extension	Yes.	
§63.9(d)	New Source Notification for Special Compliance Requirements.	Yes.	
§63.9(e)	Notification of Performance Test	Yes.	
§63.9(f)	Notification of VE/Opacity Test	Yes	This requirement only applies to opacity and VE performance tests required in Table 4 to subpart AAAAA. Notification not required for VE/opacity test under Table 6 to subpart AAAAA.
§63.9(g)	Additional CMS Notifications	No	Not required for operating parameter monitoring.
§63.9(h)(1)–(h)(3)	Notification of Compliance Status	Yes.	
§63.9(h)(4)		No.	
§63.9(h)(5)–(h)(6)	Notification of Compliance Status	Yes.	
§63.9(i)	Adjustment of Deadlines	Yes.	
§63.9(j)	Change in Previous Information	Yes.	

TABLE 8 TO SUBPART AAAAA OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART AAAAA—Continued

[As required in § 63.7140, you must comply with the applicable General Provisions requirements according to the following table.]

Citation	Summary of requirement	Am I subject to this requirement?	Explanations
§ 63.10(a)	Recordkeeping/Reporting General Requirements.	Yes	See §§ 63.7131 through 63.7133.
§ 63.10(b)(1)–(b)(2)(xii)	Records	Yes.	
§ 63.10(b)(2)(xiii)	Records for Relative Accuracy Test	No.	
§ 63.10(b)(2)(xiv)	Records for Notification	Yes.	
§ 63.10(b)(3)	Applicability Determinations	Yes.	
§ 63.10(c)	Additional CMS Recordkeeping	No	See § 63.7132.
§ 63.10(d)(1)	General Reporting Requirements	Yes.	
§ 63.10(d)(2)	Performance Test Results	Yes.	
§ 63.10(d)(3)	Opacity or VE Observations	Yes	For the periodic monitoring requirements in Table 6 to subpart AAAAA, report according to § 63.10(d)(3) only if VE observed and subsequent visual opacity test is required.
§ 63.10(d)(4)	Progress Reports	Yes.	
§ 63.10(d)(5)	Startup, Shutdown, Malfunction Reports.	Yes.	
§ 63.10(e)	Additional CMS Reports	No	See specific requirements in subpart AAAAA, see § 63.7131.
§ 63.10(f)	Waiver for Recordkeeping/Reporting	Yes.	
§ 63.11(a)–(b)	Control Device Requirements	No	Flares not applicable.
§ 63.12(a)–(c)	State Authority and Delegations	Yes.	
§ 63.13(a)–(c)	State/Regional Addresses	Yes.	
§ 63.14(a)–(b)	Incorporation by Reference	No.	
§ 63.15(a)–(b)	Availability of Information	Yes.	

* * * * *

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is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. section 804(2).

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by April 5, 2004. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. (*See* section 307(b)(2).)

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Particulate matter, Reporting and recordkeeping requirements.

Dated: November 26, 2003.

Bharat Mathur,

Acting Regional Administrator, Region 5.

■ For the reasons stated in the preamble, part 52, chapter I, title 40 of the Code of Federal Regulations is amended as follows:

PART 52—[AMENDED]

■ 1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart P—Indiana

■ 2. Section 52.770 is amended by adding paragraph (c)(152) to read as follows:

§ 52.770 Identification of plan.

* * * * *

(c) * * *

(152) On December 19, 2001, Indiana submitted revised Particulate Matter (PM) control requirements. A March 17, 2003 letter from Indiana clarified what portions of the original submission the State was seeking revisions for. EPA is approving revisions for certain natural gas combustion sources in Indiana and various cleanup revisions to Indiana's PM rules. One revision eliminates PM emissions limits on specified natural gas combustion sources and replaces the limits with a requirement that such sources may only burn natural gas. The submission also contains many cleanup provisions such as eliminating limits for sources which have shut down and updating names of sources.

(i) Incorporation by reference.

(A) Indiana Administrative Code (IAC) Title 326: Air Pollution Control Board, Article 6: Particulate Rules, Rule 1: Nonattainment Area Limitations, IAC 6–1–1.5: Definitions; IAC 6–1–2: Particulate emission limitations; fuel combustion steam generators, asphalt concrete plant, grain elevators, foundries, mineral aggregate operations; modification by commissioner; IAC 6–1–3: Non-attainment area particulate limitations; compliance determination; IAC 6–1–4: Compliance schedules; IAC 6–1–5: Control strategies; IAC 6–1–6: State Implementation Plan revisions; IAC 6–1–8.1: Dearborn County particulate matter emissions limitations; IAC 6–1–9: Dubois County; IAC 6–1–10.1: Lake County PM_{10} emission requirements, Subsections (a) through (k); IAC 6–1–11.1: Lake County fugitive particulate matter control requirements; IAC 6–1–12: Marion County; IAC 6–1–13: Vigo County; IAC 6–1–14: Wayne County; IAC 6–1–15: Howard County; IAC 6–1–16: Vanderburgh County; IAC 6–1–17: Clark County; and, IAC 6–1–18: St. Joseph County. Adopted by the Indiana Air Pollution Control Board August 1, 2001. Filed with the Secretary of State November 8, 2001. Published in the *Indiana Register*, Volume 25, Number 3, December 1, 2001 at 709. State effective December 8, 2001.

(B) Indiana Administrative Code (IAC) Title 326: Air Pollution Control Board, Article 6: Particulate Rules, Rule 1: Non-attainment Area Limitations, 6–1–1: Applicability. Adopted by the Indiana Air Pollution Control Board August 1, 2001. Filed with the Secretary of State November 8, 2001. Published in the *Indiana Register*, Volume 25, Number 3, December 1, 2001 at 709. State effective, December 8, 2001. Amended by Errata filed with the Secretary of State January 10, 2002. Published in the *Indiana Register*, Volume 25, Number 5, February 1, 2002 at 1644. State effective, February 24, 2002. And amended by Errata filed with the Secretary of State October 2, 2002. Published in the *Indiana Register*, Volume 26, Number 2, November 1, 2002 at 383. State effective, November 16, 2002.

[FR Doc. 04–1820 Filed 2–2–04; 8:45 am]

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[OAR–2003–0138, FRL–7551–6]

RIN 2060–AE79

National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national emission standards for hazardous air pollutants (NESHAP) for new and existing organic liquids distribution (OLD) (non-gasoline) operations, which are carried out at storage terminals, refineries, crude oil pipeline stations, and various manufacturing facilities. These NESHAP implement section 112(d) of the Clean Air Act (CAA) by requiring all OLD operations at plant sites that are major sources to meet hazardous air pollutant (HAP) emissions standards reflecting the application of the maximum achievable control technology (MACT).

The EPA estimates that approximately 5,300 megagrams per year (Mg/yr) (5,900 tons per year (tpy)) of HAP are emitted from facilities in this source category. Although a large number of organic HAP are emitted nationwide from these operations, benzene, ethylbenzene, toluene, vinyl chloride, and xylenes are among the most prevalent. These HAP have been shown to have a variety of carcinogenic and noncancer adverse health effects.

The EPA estimates that the final standards will result in the reduction of HAP emissions from major sources with OLD operations by 60 percent. The emissions reductions achieved by the final standards, when combined with the emissions reductions achieved by other similar standards, will provide improved protection to the public and achieve a primary goal of the CAA.

DATES: This rule is effective February 3, 2004. The incorporation by reference of certain publications listed in today's final rule is approved by the Director of the Federal Register as of February 3, 2004.

ADDRESSES: *Docket.* Docket Nos. A–98–13 and OAR–2003–0138 are located at the U.S. EPA Docket Center, EPA West, Room B102, 1301 Constitution Avenue NW., Washington, DC 20460.

FOR FURTHER INFORMATION CONTACT: For further information concerning applicability and rule determinations,

contact the appropriate State or local agency representative. If no State or local representative is available, contact the EPA Regional Office staff listed in 40 CFR 63.13. For information concerning the analyses performed in developing the NESHAP, contact Martha Smith, U.S. EPA, Emission Standards Division, Waste and Chemical Processes Group, C439–03, Research Triangle Park, North Carolina 27711, (919) 541–2421, *smith.martha@epa.gov.*

SUPPLEMENTARY INFORMATION: *Regulated Entities.* Categories and entities potentially regulated by this action include:

Category	NAICS* code	SIC* code	Examples of regulated entities
Industry	325211, 325192, 325188, 32411, 49311, 49319, 48611, 42269, 42271.	2821, 2865, 2869, 2911, 4226, 4612, 5169, 5171.	Operations at major sources that transfer organic liquids into or out of the plant site, including: liquid storage terminals, crude oil pipeline stations, petroleum refineries, chemical manufacturing facilities, and other manufacturing facilities with collocated OLD operations.
Federal Government			Federal agency facilities that operate any of the types of entities listed under the "industry" category in this table.

*Considered to be the primary industrial codes for the plant sites with OLD operations.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your facility is regulated by this action, you should examine the applicability criteria in § 63.2334 of the final rule. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Docket. We have established an official public docket for this action under Docket ID Nos. A–98–13 and OAR–2003–0138. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. All items may not be listed under both docket numbers, so interested parties should inspect both docket numbers to ensure that they have received all materials relevant to the final rule. Although a part of the official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the Office of Air and Radiation Docket and Information Center (Air Docket) in the EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Avenue NW, Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744. The telephone number for the Air Docket is (202) 566–1742. A reasonable fee may be charged for copying docket materials.

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to view public comments, to access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Once in the system, select "search," then key in the appropriate docket identification number. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility in the above paragraph entitled *Docket.*

WorldWide Web (WWW). In addition to being available in the docket, an electronic copy of today's final NESHAP will also be available on the WWW through the Technology Transfer Network (TTN). Following the Administrator's signature, a copy of the NESHAP will be posted on the TTN's policy and guidance page for newly proposed or promulgated rules at *http://www.epa.gov/ttn/oarpg.* The TTN provides information and technology exchange in various areas of air pollution control. If more information regarding the TTN is needed, call the TTN HELP line at (919) 541–5384.

Judicial Review. Under section 307(b)(1) of the CAA, judicial review of the final NESHAP is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by April 5, 2004. Under section 307(d)(7)(B) of the CAA, only an objection to a rule or procedure raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under section 307(b)(2) of the CAA, the requirements established by the final rule may not be challenged separately in any civil or criminal proceeding brought to enforce these requirements.

Outline. The information presented in this preamble is organized as follows:

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C. What Is the Affected Source?
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I. Introduction

A. What Is the Purpose of NESHAP?

The purpose of the final NESHAP is to protect the public health and the environment by reducing emissions of HAP from operations that distribute organic liquids.

B. What Is the Source of Authority for Development of NESHAP?

Section 112 of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. Organic liquids distribution (non-gasoline) (major sources only) was included on the initial list of source categories published on July 16, 1992 (57 FR 31576). Major sources of HAP are those that have the potential to emit 10 tpy or more of any one HAP or 25 tpy or more of any combination of HAP.

Section 112 (d)(2) of the CAA requires NESHAP to reflect the maximum degree of reduction in emissions of HAP that is achievable. This level of control is commonly referred to as the MACT.

The MACT floor is the minimum control level allowed for NESHAP. This concept appears in section 112(d)(3) of the CAA. For new sources, the MACT floor cannot be less stringent than the HAP emissions control that is achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than standards for new sources, but they cannot be less stringent than the average HAP emissions limitation achieved by the best-performing 12 percent of existing sources in the category or subcategory (or by the best-performing five sources for categories or subcategories with fewer than 30 sources).

In developing MACT, we also consider control options that are more stringent than the floor. We may establish standards more stringent than the floor based on the consideration of cost of achieving the HAP emissions reductions, any nonair quality health and environmental impacts, and energy requirements, under CAA section 112(d)(2).

The NESHAP for organic liquids distribution were proposed on April 2, 2002 (67 FR 15674). This action announces EPA's final decisions on the NESHAP.

C. What Processes and Operations Are Included in the OLD (Non-gasoline) Source Category?

The OLD (non-gasoline) source category involves the distribution of organic liquids into, out of, or within a plant site. The distribution activities include the storage of organic liquids in storage tanks not subject to other 40 CFR part 63 standards and transfers into or out of the tanks from or to cargo tanks, containers, and pipelines. Organic liquids are those non-crude oil liquids that contain at least 5 percent by weight of any combination of the 98 HAP listed in Table 1 to subpart EEEE of part 63, and have a total liquid vapor pressure of 0.7 kilopascals (0.1 pound per square inch absolute (psia)) or greater, and all crude oils downstream of the first point of custody transfer. For the purposes of the OLD NESHAP, organic liquids do not include gasoline, fuels that are consumed or dispensed on the plant site, kerosene (No. 1 distillate oil), diesel (No. 2 distillate oil), asphalt, and heavier distillate oils and fuel oils, hazardous waste, wastewater, or ballast water. Emission sources controlled by the OLD NESHAP are storage tanks, transfer operations, transport vehicles while being loaded, and equipment leak components (valves, pumps, and sampling connections) that have the potential to leak.

The types of organic liquids and emission sources covered by the OLD NESHAP are frequently found at many types of facilities that are already subject to other NESHAP. If an emission source is in organic liquid distribution service and is already subject to an existing 40 CFR part 63 NESHAP, then that emission source is not subject to the OLD NESHAP.

II. Summary of the Final OLD NESHAP

A. What Source Categories and Subcategories Are Affected by the Final OLD NESHAP?

Today's final rule applies to the OLD source category. We did not develop any subcategories. However, OLD operations that do not meet the specified applicability criteria for relevant emission limitations and work practice standards contained in the final rule are not required to apply emission reduction measures:

B. What Are the Primary Sources of HAP Emissions and What Are the Emissions?

The primary sources of HAP emissions from the OLD source category are the loss of HAP during the filling of storage tanks with organic liquids, storage of organic liquid in storage tanks, vapor displacement during the loading of organic liquids into transport vehicles and containers, and vapor leakage from transport vehicles at transfer racks during loadings of these vehicles. The HAP emissions are also the result of leaks from equipment such as valves, pumps, and sampling connection systems. Total baseline HAP emissions from the OLD source category are approximately 5,900 tpy.

C. What Is the Affected Source?

We have defined the affected source broadly to be the collection of activities and equipment used to distribute organic liquids into, out of, or within a major source plant site. This affected source is termed the "organic liquids distribution (OLD) operation." Four types of emission sources are included in the affected source: storage tanks storing organic liquids; transfer racks at which organic liquids are loaded into or unloaded out of transport vehicles and/or containers; the transport vehicles themselves while they are loading or unloading organic liquids at transfer racks; and equipment leak components in organic liquids service that are associated with pipelines and with storage tanks and transfer racks storing, loading, or unloading organic liquids.

Applicability of the final standards is not restricted to any specific industries, but to each OLD operation that meets the applicability criteria of the final rule. The final standards do not apply to any emission source that is subject to another 40 CFR part 63 rule.

The liquids regulated by the final rule consist of non-crude oil organic liquids that contain at least 5 percent by weight of any combination of the organic HAP compounds listed in Table 1 to subpart EEEE of part 63 and have a total liquid vapor pressure of 0.1 psia or greater, plus all crude oils downstream of the first point of custody transfer. Gasoline is specifically excluded from coverage by the final rule as are fuels consumed or dispensed on the plant site as well as kerosene (No. 1 distillate oil), diesel (No. 2 distillate oil), asphalt, and heavier distillate oils and fuel oils.

Regulatory overlaps are specifically addressed in the final rule. Many of the

facilities potentially affected by the final OLD NESHAP contain activities and equipment (*i.e.*, certain storage tanks, transfer racks, and equipment components) that are already subject to other Federal air standards (such as 40 CFR part 60, subpart Kb, for storage tanks, or subpart GGG or FFFF of 40 CFR part 63). The final rule clarifies that emission sources subject to other 40 CFR part 63 NESHAP are not subject to the OLD NESHAP. The final rule also clarifies that sources subject to other non-MACT rules must comply with the requirements of the OLD NESHAP as well as the other rules.

D. What Are the HAP Emission Limits, Operating Limits, and Other Standards?

We are promulgating the requirements of the final NESHAP in the form of HAP emission limits (*i.e.*, percent reduction or exhaust concentration), operating limits, and work practice standards. The work practice standards are a combination of design, equipment, and operational standards.

The final NESHAP contain emission standards for storage tanks, transfer racks, transport vehicles, and equipment components at existing and new OLD operations.

The standards for storage tanks apply to tanks storing organic liquids and meeting the tank capacity and liquid HAP vapor pressure applicability criteria given in Table 2 to subpart EEEE of part 63. You have three options for control. First, you may install a closed vent system and control device with at least 95 percent control efficiency for the organic HAP listed in Table 1 to subpart EEEE of part 63. You may also choose to demonstrate that the measurement of total organic compounds (TOC) is an appropriate surrogate for organic HAP. As an alternative option to the 95 percent standard, combustion devices may meet an exhaust concentration limit of 20 parts per million by volume (ppmv) of organic HAP or TOC. Second, you may capture and route emissions to a fuel gas system or back into a process. Third, you may meet a work practice standard by using a compliant internal or external floating roof in the affected storage tank. The tank size and liquid vapor pressure applicability criteria defining tanks subject to emission reduction requirements are different for tanks at existing or new affected sources.

The owner or operator will have to install a continuous monitoring system (CMS) and establish operating limits for each control device used to control storage tanks. The CMS may be of a type to measure either organic concentration in the gas stream or an operating parameter (such as fire box temperature) of the control device. A site-specific monitoring plan must be developed and submitted by the owner or operator for each emission source.

The emission limit for transfer racks is a closed vent system and control device achieving a control efficiency of at least 98 percent for the organic HAP listed in Table 1 to subpart EEEE of part 63. You may also utilize a vapor balancing system to achieve the required control efficiency. You may also choose to demonstrate that the measurement of TOC is an appropriate surrogate for organic HAP. As an alternative option to the 98 percent standard, combustion devices may meet an exhaust concentration limit of 20 ppmv of organic HAP or TOC. Only transfer racks meeting the specified applicability criteria in the final rule are required to implement emission reduction measures. The same emission limit applies to affected transfer racks at both existing and new affected sources.

The same requirements for installing a CMS and establishing operating limits for the control device applicable to storage tanks also apply to the control systems installed on transfer racks.

A work practice standard applies to pumps, valves, and sampling connection systems. These equipment leak components in organic liquids service must be included in a leak detection and repair (LDAR) program which requires the use of a detection instrument. The term "in organic liquid service" is defined in the final rule to mean an equipment leak component that contains or contacts organic liquids having 5 percent by weight or greater of the organic HAP listed in Table 1 to subpart EEEE of part 63. Owners and operators have the option of applying the provisions from 40 CFR part 63, subpart TT, subpart UU, or subpart H for their LDAR program. The LDAR standard applies to equipment leak components at both existing and new affected sources.

A work practice standard applies to transport vehicles (cargo tanks and tank cars) loading at affected transfer racks. Each of these vehicles must have current vapor tightness certification indicating that it has been properly tested for vapor tightness. If the vehicle is equipped with vapor collection equipment, the vehicle must be tested using EPA Method 27 on an annual basis. For vehicles not so equipped, the Department of Transportation (DOT) leak tightness standards apply, and current certification indicating that these standards have been met must be retained by the owner or operator for each vehicle that loads at affected transfer racks whether the source owns the vehicle or not. The owner or operator is not required to test transport vehicles he or she does not own, but must take adequate steps to ensure that uncertified vehicles are not loaded at affected racks. These work practice standards are the same for both existing and new affected sources.

E. When Must I Comply With the OLD NESHAP?

We are requiring that all existing affected sources comply by February 5, 2007, except for floating roof storage tanks that do not initially meet the equipment standard for storage tanks in the final rule. These tanks must be in compliance following their next degassing and cleaning, or by February 3, 2014, whichever is sooner. If the first degassing and cleaning activity occurs during the 3 years following February 3, 2004, the compliance date is February 5, 2007. Existing area sources that increase their HAP emissions or their potential to emit such that they become major sources of HAP, and thus affected sources, must be in compliance within 3 years after the date they become major sources.

Any affected source that commenced construction after April 2, 2002, at a site where there were no existing OLD operations, is a new affected source. Any affected source that commenced reconstruction after April 2, 2002, at a site that was an existing OLD source, is a reconstructed source. Emissions sources at new and reconstructed affected sources that are now in operation must be in compliance on February 3, 2004, with certain exceptions. These exceptions are due to the fact that the final rule applies to some affected sources and emission sources that would not have been covered by the proposed rule, and that in some cases the final emission standards are more stringent than were proposed. In cases where an emission source at a now-operating new or reconstructed affected source would not have been required to be controlled under the proposed rule but is required to be controlled under the final rule, the emission source must be in compliance by February 5, 2007. Where an emission source at such a new or reconstructed affected source would have been subject to a less stringent control requirement under the proposed rule than applies under the final rule, the emission source must be in compliance with the final rule's requirement by February 5, 2007, and in the interim must comply with the less stringent control requirement as proposed.

New or reconstructed sources that commence construction or reconstruction after February 3, 2004 must comply upon startup.

F. What Are the Testing and Initial Compliance Requirements?

To determine the applicability of the final standards to individual operations, each OLD operation must evaluate whether any of their distributed liquids contain less than 5 percent HAP by weight and, thus, do not meet the definition of an organic liquid under the final rule. The specified test method for this is EPA Method 311 of 40 CFR part 63, appendix A, or other methods approved by the Administrator. An owner or operator may use other means (such as voluntary consensus standard methods, material safety data sheets (MSDS), or certified product data sheets) for determining the HAP content. However, if the results of an analysis by EPA Method 311 (or other approved test method) are different from the HAP content determined by another means, the EPA Method 311 (or other approved test method) results will govern compliance determinations.

Control devices used to comply with the final standards are subject to a performance test to demonstrate initial compliance with the emission limits, except that a design evaluation, conducted according to 40 CFR part 63 subpart SS, may be used for nonflare control devices.

The test methods applicable to control devices include EPA Methods 18, 25, and 25A of 40 CFR part 60, appendix A, and EPA Method 316 of 40 CFR part 63, appendix A, depending on the constituents of the gas stream being controlled and the format of the standard (organic HAP or TOC) the facility selects for its compliance demonstration. Floating roof tanks are subject to visual and seal gap inspections to determine initial compliance with the tank work practice standards. For the LDAR program for equipment components, EPA Method 21 of 40 CFR part 60, appendix A, is applicable.

Initial compliance with the emission limits for storage tanks and transfer racks consists of demonstrating that the control device achieves the required 95 or 98 percent control efficiency for organic HAP (or TOC, if used as a documented surrogate) or 20 ppmv exhaust concentration for combustion devices. The required percentage control efficiency must be applied to the Table 1 to subpart EEEE of part 63 HAP concentration found at the inlet to the control device.

Work practice standards apply to storage tanks, transfer racks, transport vehicles, and equipment components. You must perform a visual inspection before filling internal floating roof tanks. You must also conduct a measurement of seal gaps for external floating roof tanks within 90 days after filling. For transfer racks, you must ensure that vapor balancing systems or equipment for routing emissions to a fuel gas system or back to a process are properly designed and operated. For transport vehicles, you must perform vapor tightness testing for vehicles that you own and maintain documentation for all affected vehicles certifying that they are vapor-tight. Finally, for the equipment LDAR program, you must identify which 40 CFR part 63 subpart you are complying with and keep a record identifying the selected subpart.

G. What Are the Continuous Compliance Requirements?

If you use a control device, we are requiring that you monitor and record the operating parameters established during the initial performance test and calculate operating parameter values averaged on a daily basis. Continuous compliance is demonstrated if you collect CMS data as specified and maintain the operating limits established during the design evaluation or performance test.

If you are subject to work practice standards, we are requiring that you demonstrate continuous compliance by performing the required work practices and by keeping the records required to show that you are in compliance. For storage tanks, you must continue to perform the applicable inspections and seal gap measurement to ensure that the floating roofs continue to provide the proper control. For transport vehicles, you must continue performing the required vapor tightness testing on vehicles that you own and take steps to ensure that all transport vehicles loading at the OLD operation have the required certification. For equipment components, you must perform the required monitoring, keep the required records, and file the required reports consistent with the LDAR program you selected for the equipment components in the affected source.

H. What Are the Notification, Reporting, and Recordkeeping Requirements?

The notifications, records, and reports required by the final rule are generally consistent with the requirements of the General Provisions of subpart A of 40 CFR part 63. Two basic types of reports are required: notifications (such as the Initial Notification and the Notification of Compliance Status) and semiannual compliance, or periodic, reports. The Initial Notification apprises the permitting authority of applicability for existing sources or of construction for new sources.

The Notification of Compliance Status must be submitted within 60 days after the compliance demonstration activity has been completed. This report contains the results of the initial performance test, as well as all calculations and analyses used to show that the affected source has achieved and will continue to achieve compliance.

You are required to describe in your semiannual compliance reports any deviations of monitored parameters from reference values; failures to comply with the startup, shutdown, and malfunction (SSM) plan for control devices; and results of LDAR monitoring and storage tank inspections. These reports are also used to notify the permitting authority of any changes in CMS, processes, or controls since the last reporting period.

You are required to keep a copy of each notification and report, along with supporting documentation, for 5 years. Of these 5 years, the 2 most recent years must be kept on-site. The final rule allows electronic recordkeeping; however, you must be able to access all required records in a timely manner. You must keep records related to SSM, records of performance tests, and records for each continuous monitoring system. If you must comply with work practice standards, you also need to keep records for 5 years (the 2 most recent years must be kept on-site) certifying that you are in compliance with the work practices.

III. Summary of Environmental, Energy, and Economic Impacts

A. What Facilities Are Affected by the Final OLD NESHAP?

Facilities affected by the final OLD NESHAP are those facilities that carry out organic liquid distribution activities. Most of these facilities can be grouped under three general categories: stand-alone (usually for-hire) storage terminals; OLD operations collocated with a petroleum refinery, a chemical manufacturing plant site, or other manufacturing plant site; and crude oil pipeline pumping or breakout stations (containing crude oil tankage).

We estimate that in 1997, the baseline year for the final standards, there were approximately 279 collocated OLD operations, 86 stand-alone storage terminals, and 16 crude oil pipeline stations, for a total of approximately 381

existing major source plant sites with OLD operations.

B. What Are the Air Quality Impacts?

The 1997 baseline HAP emissions from OLD operations are approximately 5,900 tpy. The final OLD NESHAP will reduce HAP from existing major sources by 3,500 tpy, a reduction of 60 percent. Such emission reductions are likely to reduce the risk of adverse effects of HAP.

Although the final OLD NESHAP do not specifically require the control of volatile organic compounds (VOC), the organic HAP emission control technologies upon which the standards are based will also significantly reduce VOC emissions from the source category. We estimate that the final OLD NESHAP will reduce nationwide VOC emissions emitted by the source category by approximately 9,900 tpy, or 70 percent, from baseline. This will have the effect of reducing adverse ozone-related health and welfare impacts.

The final OLD NESHAP will result in small increases in other air pollution emissions from combustion devices that will be installed in the next 5 years to comply with today's final rule. These increases result both from the combustion device directly and from the electrical generating plants used to generate the electricity necessary to operate the add-on controls and associated air handling equipment.

C. What Are the Water Quality Impacts?

We estimate that the final OLD NESHAP will not significantly impact water quality. The final standards do not contain requirements related to water discharges, wastewater collection, or spill containment, and no additional organic liquids are expected to enter these areas as a result of the OLD NESHAP. A few facilities may select a scrubber (depending on the specific emissions they are controlling) to control emissions from transfer racks or fixed-roof storage tanks. The impact on water quality from the use of scrubbers is not expected to be significant.

D. What Are the Solid and Hazardous Waste Impacts?

We project that there will be no significant solid or hazardous waste impact. Flares, thermal oxidizers, scrubbers, and condensers do not generate solid waste as a by-product of their operation. When adsorption systems are used, the spent activated carbon or other adsorbent that cannot be further regenerated may be disposed of in a landfill, which would contribute a small amount of solid waste.

E. What Are the Energy Impacts?

The control devices used for transfer rack and storage tank control use electric motor-driven blowers, dampers, or pumps, depending on the type of system, in addition to electronic control and monitoring systems. The installation of these devices would have a small negative energy impact. To the extent that some of the controlled organic liquids are non-gasoline fuels, the applied control measures would keep these liquids in the distribution system and thus have a positive impact on this form of energy.

F. What Are the Cost Impacts?

We have estimated the industrywide capital costs for HAP emissions control equipment to be $49.3 million for the 381 existing sources. The capital costs include the costs to purchase and install the control equipment.

We have estimated the industrywide annual costs of the final rule are $25.1 million per year for the 381 existing sources. Annual costs include fixed annual costs, such as reporting, recordkeeping and capital amortization, and variable annual costs such as natural gas. The estimated average cost of the final rule is $7,100 per ton of HAP emissions reductions for existing sources.

G. What Are the Economic Impacts?

The increases in price for petroleum and chemical products affected by the final OLD rule are less than 0.003 percent, and the price increase for distribution service covered by the final rule is 0.1 percent. Reductions in output for petroleum and chemical products are also less than 0.003 percent, and the output reduction of distribution services is less than 0.002 percent.

None of the facilities affected are expected to close as a result of incurring costs associated with the final rule. Therefore, it is likely that there is no adverse impact expected to occur for the industries affected by the final rule, such as chemical manufacturing, petroleum refineries, pipeline operators, and petroleum bulk terminal operators.

IV. Summary of Rule Differences From Proposal

A. Rule Applicability

We made several clarifications to our intent as to the composition of the OLD source category and the affected source and the overall applicability of various requirements of the final rule. We have removed the facilitywide 7.29 million gallon throughput cutoff. We found, after reanalyzing our database, that we could not support such a cutoff, since our data reanalysis indicated that MACT floor levels of control applied to facilities below the proposed facility throughput cutoff. For the final rule, we have adopted a set of applicability criteria to be applied to each type of emission source to determine whether emission reductions are required for each specific emission source. These applicability criteria were developed from our MACT floor analysis of our database.

We have written the definition of the term "organic liquid" to include any non-crude oil liquid that contains at least 5 percent by weight of any combination of the HAP listed in Table 1 to subpart EEEE of part 63 and also has a total liquid vapor pressure of at least 0.1 psia, plus all crude oil downstream of the first point of custody transfer. This reflects our reanalysis of our database, which revealed that MACT floor levels of control apply to liquids with these HAP concentrations and vapor pressures. The definition also reflects our decision to eliminate the "black oil" exemption as proposed because we identified MACT floor controls for storage of crude oil.

In response to several comments, we clarified that the OLD final rule will not regulate any emission sources that are part of another 40 CFR part 63 MACT rule's affected source, whether those sources are actually controlled or not. We also included a new section in the final rule on how owners and operators should treat regulatory overlaps (*i.e.*, two Federal rules with applicability to the same emission source).

The final rule also corrects several of the proposed citations to 40 CFR part 63, subparts PP, SS, TT, UU, and WW and adds new ones to make the use of the referenced provisions easier for regulated sources to understand.

B. Compliance Demonstrations

The proposed rule was unclear as to how a source could use a design evaluation as an alternative to a performance test when demonstrating initial compliance for a control device. The final rule clarifies that the design evaluation (per 40 CFR part 63 subpart SS) may only be applied to nonflare control devices. Flares are subject to specific design criteria contained in the General Provisions (40 CFR 63.11(b)).

We have changed the principal test method to be used for analyzing the organic HAP content of liquids from EPA Method 18 of 40 CFR part 60, appendix A, to EPA Method 311 of 40 CFR part 63, appendix A. The EPA Method 18 is not an appropriate method for liquid analysis of the type that will be performed under the OLD NESHAP.

Method 18 is appropriate for determining the HAP content in air streams, not the HAP content in liquids. We are now specifying EPA Method 311 of appendix A of 40 CFR part 63, which is titled "Analysis of Hazardous Air Pollutant Compounds in Paints and Coatings by Direct Injection into a Gas Chromatograph." Sources may also use alternative analytical methods with EPA's approval, or rely on supplier information, MSDS, and similar analyses that do not require the source to perform any testing. If an MSDS, or similar documentation, presents the HAP content of components of a liquid as a range, then you must use the upper end of the range of values in determining the total HAP content of the liquid. If the results of an analysis by EPA Method 311 are different from the HAP content determined by another means, the EPA Method 311 results will govern compliance determinations.

The final rule allows up to 180 days after the compliance date to conduct the initial performance tests, rather than having to conduct them by the compliance date, and, thus, makes the final rule consistent with the amended General Provisions and other MACT rules.

C. Emission Limitations and Work Practice Standards

At proposal, we specified liquid vapor pressure cutoffs to determine applicability of the storage tank control requirements in terms of the annual average true vapor pressure of the stored liquid. This format was compatible with the liquid property data in our OLD database as we had received the data from industry. For the final rule, we have determined, in response to comments and after our re-analysis of our database, that the vapor pressure basis should be consistent with other NESHAP that also specify storage tank vapor pressure cutoff levels. Therefore, we have written the basis for the applicability criteria in the final OLD NESHAP to be the annual average true vapor pressure of the total organic HAP in the stored liquid.

We have also increased the time period over which an owner or operator may achieve compliance with the work practice standards for floating roof storage tanks. For any floating roof tanks that do not currently meet the equipment requirements specified in 40 CFR part 63 subpart WW, full compliance may be achieved within 10 years after the effective date of the final OLD NESHAP, or at the next degassing or cleaning of the tank, whichever occurs first. If the first degassing and cleaning activity occurs during the 3 years following the effective date of the final OLD NESHAP, the compliance date is 3 years from the effective date of the final OLD NESHAP. Fixed-roof tanks are still required to achieve compliance within 3 years after the effective date of the final OLD NESHAP.

At proposal, the emission limit and applicability throughput cutoff for transfer racks was based on each rack loading position. In re-analyzing the database since proposal, we have determined that the information for transfer racks could not be verified on the basis of individual rack loading position. We have written the final rule based on the entire transfer rack to be consistent with many other MACT rules.

In response to requests by commenters and after re-analyzing our database, we added 40 CFR part 63 subpart H as one of the LDAR programs that may be used to comply with the work practice standard for equipment. We also clarified that only equipment leak components associated with the affected source need to be included in a source's LDAR program.

D. Monitoring, Recordkeeping, and Reporting

The proposed rule contained detailed procedures for performing monitoring and for carrying out quality assurance checks on the monitors. The final rule incorporates the monitoring provisions of 40 CFR part 63, subpart SS, and requires owners and operators to submit their own monitoring plan for approval by the applicable title V permitting authority. In accordance with subpart SS, the final rule allows the use of organic monitors in addition to monitors that measure an operating parameter of the control device (such as temperature). This will provide more flexibility in the way a source determines operating limits and monitors operation of control systems. In response to several comments, the averaging time for the monitored data is daily, which is consistent with 40 CFR part 63 subpart SS.

Following proposal, we reviewed the proposed requirements to file reports and keep records and determined that these requirements could be streamlined by reorganizing the pertinent rule sections and deleting certain records and reports that were duplicative or unnecessary for ensuring that sources were maintaining compliance with the standards. We also responded to comments requesting flexibility in the way a source generates and submits reports by allowing a source to combine the reports required by different MACT rules or to send the periodic reports required under the final OLD NESHAP along with those required by title V of the CAA. We have incorporated provisions to allow these forms of combined reporting, as well as an allowance for multiple Notifications of Compliance Status for the same affected source to be submitted together. We have included specific references to the periodic reporting requirements in 40 CFR part 63, subparts SS, TT, UU, and WW, which had been inadvertently omitted from the proposal.

V. Summary of Responses to Major Comments

A. Rule Applicability

Comment: Several commenters stated that the Agency should revise the definition of "OLD operation" to be the combination or group of emission units used to transfer organic liquids into or out of a plant site in order to provide a clear definition of the OLD source category. Two of the commenters stated that EPA's definition of "OLD operation" is inconsistent with its source category listing. The proposed definition captures facilities that receive organic liquids but do not serve as distribution points, and from which such liquids are not obtained for further use and processing. These commenters urged EPA to limit the source category so that facilities and activities that do not serve as distribution points, or are merely managing organic liquids without distribution, are not captured in the final rule. Other commenters urged EPA to clarify that the final rule will not apply to end-users of organic liquid products, but rather only to manufacturers and distributors of those organic liquid products in the SIC/NAICS codes listed at proposal.

Response: The commenter's suggested definition for "OLD operation" is more appropriate for the affected source definition to clearly establish the limits of the affected source, but is not appropriate for describing the source category as a whole.

Further, we disagree with the commenters that our definition of OLD operation and, thus, the OLD source category is inconsistent with the source category listing by including facilities that receive organic liquids without further distributing them to end users. We consider the distribution network to include both outgoing and incoming transfers and storage of organic liquids, whether offsite or onsite. Thus, while the types of facilities identified by the commenters may never distribute the liquids offsite, the activities, equipment, and emissions that occur at such receiving and end-use facilities are part

of the overall organic liquid distribution network.

The final rule is clear that the source category includes OLD operations that are collocated with other (such as manufacturing) activities at major source plant sites. Since the source category includes distribution operations in many industrial categories, we have not included any reference to SIC or NAICS codes in the final rule.

Comment: One commenter noted that the Technical Support Document (TSD) indicates that "tanks and other liquid handling equipment involved solely in activities within the plant site would not be considered to be OLD emission sources * * *," but the provisions of the proposed rule and the definition of "OLD operation" do not support this position.

Similarly, commenters recommended that the affected source not include dedicated equipment used to transfer and store organic liquids between on-site process units.

Response: Our intent for the final rule is to reduce HAP emissions from the storage and transfer of organic liquids within a distribution network. It is our judgment that the distribution network ends only when the organic liquids reach a final destination where they are consumed or are introduced into an operation included in another source category. Therefore, the OLD network includes the transfer and storage of organic liquids involving any equipment identified in the affected source for OLD and that are not subject to another MACT rule. Further, in our judgement, there is no practical difference in the types of equipment in use and the types of available emission controls are identical for both inter- and intra-plant site transfers.

Based on these considerations, it is our intent that equipment used to store or transfer organic liquids that occur "within" a plant site are considered part of the OLD distribution network and part of the OLD affected source unless such equipment is subject to another MACT standard. Therefore, we have not excluded from the final rule "tanks and other liquid handling equipment involved solely in activities within the plant site," and we have written the definition of OLD operation to include transfers and storage of organic liquids "into, out of, or within a plant site." Thus, if an emission source meets the relevant HAP content, vapor pressure, and capacity or throughput criteria, the emission reduction requirements of the final rule apply to that emission source even if it transfers or stores organic liquids wholly within a plant site.

Comment: Several commenters requested that EPA clarify the relationship between applicability and affected source. These commenters felt that restricting the affected source to only those emission points that are subject to controls could result in a very narrow definition of the affected source. It could also result in triggering the MACT new source requirements by the addition of a relatively small component to an OLD operation, if the rest of the OLD operation were exempt from controls. This does not appear to be EPA's intent, but rather an inadvertent consequence of the manner in which the proposed rule addresses emission points that are exempt from controls.

Another commenter stated that EPA's proposed affected source definition is unlawful because EPA chose a broad definition that allows equipment to be replaced without the replacement becoming a new source.

Response: We agree with the commenters that the proposed rule did not contain a clear definition of the affected source, primarily because of confusion that occurred as the result of the two different definitions of "affected source" that were inadvertently created in the proposed rule.

While the intent of proposed § 63.2338(b)(2) was to provide additional detail to supplement the definition in § 63.2338(b)(1), we understand the confusion that this created by appearing to present a different and conflicting affected source definition. In the final rule, we have defined "affected source" as "* * * the collection of activities and equipment used to distribute organic liquids into, out of, or within a facility that is a major source of HAP."

We also agree with the commenters that the affected source should include all of the pertinent emission sources without regard to the applicability criteria that cause certain equipment to be subject to different requirements of the final rule. Therefore, the final rule, in § 63.2338(b), presents a description of the affected source in which all of the pertinent emission sources are listed, without regard to their control requirements under the final rule. We have also written § 63.2338(b)(1) to define the affected source as "the collection of activities and equipment." This clarifies our intention to have a broad interpretation of affected source.

We acknowledge that a broad definition in many circumstances allows individual emission points (such as a single storage tank, pump, etc.) to be replaced without the new source standards being applied to that new piece of equipment. Using a broad definition of affected source is, however, within our discretion in selecting the best approach for the standards for a particular source category. The term "affected source" refers to the collection of processes, activities, or equipment to which a MACT standard applies. In other MACT rules, we have adopted either a broader or narrower definition of affected source for given categories depending on the nature of particular MACT requirements and the strategies available for meeting them. A broader definition permits emission reduction requirements to apply to a larger group of processes, activities, and equipment. This approach encourages owners or operators to develop and utilize more innovative and economically efficient control strategies. Using a narrower definition of affected source frequently leads to difficulties for facilities in managing differing requirements for individual pieces of equipment without achieving substantive emission reduction.

For the purpose of determining MACT, however, we chose to utilize the approach of examining the emission sources individually. In our industry survey, we requested data for each emission source rather than from the entire OLD operation. By evaluating the data on an emission source basis, we were able to establish MACT floors for each type of emission source without having to consider how each facility controlled emissions on a facilitywide basis. For example, we established MACT floors for storage tanks based on facilities with the best controlled storage tanks, even if those facilities did not utilize the best controlled transfer racks.

Our selected approach for the final OLD NESHAP is consistent with the 40 CFR part 63 General Provisions, as amended (67 FR 16582, April 5, 2002), which adopt a broader definition of affected source such that future MACT standards will generally adopt a definition of affected source which consists of all existing HAP-emitting equipment and activities that are at a single contiguous site and are within a specific category or subcategory.

Comment: Several commenters recommended that compounding, blending, and packaging operations be included in the affected source, but with no control requirements. According to the commenters, this would result in a more accurate investment basis for OLD operations at a site, would clarify which MACT affected source these operations are associated with, and would avoid the potential for future regulatory overlap.

One commenter supported the inclusion of small containers (pails, drums, portable tanks, and isotainers) as part of the OLD affected source but urged that small containers be excluded from controls in the final rule.

Response: We have written the definition of affected source in the final rule to include storage tanks and transfer racks used to store or transfer organic liquids regardless of the particular operation or activity such tanks and transfer racks were supporting, including such operations and activities as packaging, blending, and compounding.

We have not defined the affected source to single out the operations identified by the commenter because the changes that were made to the definition provide the necessary clarity. The final rule makes it clear that equipment used in operations such as these would be part of the affected source if they meet the general criteria of storing or transferring organic liquids and they are not subject to another MACT rule. Equipment meeting the affected source criteria in § 63.2338 of the final rule are to be included as emission sources in the initial Notifications and Reports required under §§ 63.2382 and 63.2386 of the final rule.

Finally, we have included containers in the definition of affected source. This is consistent with how we have re-defined the affected source to include equipment even if control is not required under the final rule. The re-analysis of our data after reviewing the public comments resulted in a finding that the floor level of control for existing container filling operations is no emission reduction. We did, however, identify a MACT floor level of control for new source container filling. As discussed in more detail later in this preamble, we have determined that there are no feasible or cost-effective beyond-the-floor alternatives for the filling of containers at existing sources. Therefore, the final rule includes control requirements only for container filling operations that are new sources.

Comment: A number of commenters stated that the inclusion of cargo tanks as part of the affected source is inappropriate. These commenters pointed out that third parties typically provide cargo tanks and they are not generally under the common control of the OLD facilities. The commenters also stated that, if the OLD operation owner purchases either new cargo tanks or a fleet of existing cargo tanks, they should not be included in the reconstruction cost evaluation and potentially trigger new source MACT requirements at the OLD operation.

Response: As discussed in the proposal preamble and the TSD, and in previous rulemakings including the Gasoline Distribution MACT NESHAP (40 CFR part 63, subpart R), cargo tanks (consisting of tank trucks and tank cars, and renamed as "transport vehicles" in the final rule) can be a significant source of emissions while being loaded at transfer racks. Transport vehicles (whether owned/leased by the facility or operated by other firms) must be included in the affected source to ensure that MACT control will extend to these sources. As the final rule makes clear in Table 4 to subpart EEEE of part 63, the owner or operator must have vapor tightness documentation for each transport vehicle loading at an affected transfer rack. Third parties in many cases will be responsible for getting periodic testing (EPA Method 27 or DOT test) performed and for providing the certification papers to the facilities.

The acquisition of additional transport vehicles, whether by the source owner or by third parties, would not be included in the reconstruction cost evaluation and would not trigger any different control requirements for the liquid transfer operation. The items that define the affected source are the stationary infrastructure of the facility; that is, the combination of tanks, transfer racks, and equipment leak components. The primary mission of transport vehicles is transporting the liquids on roadways. Thus, they are not part of the stationary infrastructure of the facility. The objective of the "reconstruction" provisions of the CAA is to prevent an existing source from avoiding more stringent new source standards by perpetually rebuilding existing equipment rather than installing new equipment. The purchase of transport vehicles should have no impact on the triggering of more stringent standards for the storage tanks or transfer racks at an affected source. Also, at an OLD operation, facilitywide emission rates are impacted by the size, throughput capacity, and number of storage tanks and transfer racks. From the standpoint of overall emissions, it makes no difference if one vehicle is loaded ten times or if ten identical vehicles are loaded once. Therefore, the number of individual transport vehicles or the acquisition of additional transport vehicles should not be included as part of the infrastructure of the facility that is considered in determining "reconstruction" cost. The acquisition of additional containers by an owner or operator of an OLD facility would also not be considered in the determination of "reconstruction" costs.

Comment: Three commenters stated that EPA needed to clarify that only pipelines with equipment leak components (*i.e.*, pumps, valves, or sampling connection systems) associated with a storage tank or transfer rack included in the affected source will be subject to the LDAR requirements. Commenters requested that a pipeline that transfers organic liquids directly to or from a process unit that does not pass through a transfer rack or storage vessel subject to the rule is not to be included in the affected source or in the calculation of throughput used in applicability determinations.

Commenters also stated that the exclusions from the OLD rule should include pipeline equipment leak components used to directly transfer organic liquids across plant site boundaries into or out of storage tanks not subject to another MACT standard or process equipment that are not storage tanks, and unloading facilities and pipeline equipment used to transfer organic liquids from ships, barges, tank trucks, or tank cars into a storage tank covered by other MACT standards or process equipment that are not storage tanks.

Response: Pipelines themselves are not and never were part of the affected source definition. Only equipment leak components that are part of a pipeline were considered part of the affected source at proposal. We know of no reason as to why equipment leak components associated with a pipeline that transfers organic liquids should not be part of the affected source for the final rule, regardless of whether the organic liquid being transferred is deposited in a storage tank subject to the final rule or to another MACT standard. If the pipeline's equipment leak components are subject to another MACT standard, then they are not subject to the final OLD NESHAP. If the pipeline's equipment leak components are not subject to another MACT standard and the pipeline is in organic liquids service, then the equipment leak components are subject to the requirements of the final OLD NESHAP.

Finally, the final rule does not include a facility-level throughput calculation to determine whether or not a facility is subject to the final rule. Therefore, there is no longer a need to clarify the relationship of pipelines to the throughput applicability determination.

Comment: We received a large number of comments concerning the proposed applicability criteria of 7.29 million gallons per year, which would

have excluded facilities from the OLD rule if their facility throughput was less than 7.29 million gallons of organic liquids. Several commenters supported the cutoff and requested clarification on the procedures for determining throughput. Other commenters questioned the appropriateness of excluding from control those facilities that are in the source category and have emission sources that could be controlled by the final OLD rule.

Response: We proposed a facility-level throughput cutoff believing it was a useful criterion to identify smaller facilities at which controls would not be required based on our understanding that such facilities were not typically required to be controlled under other rules. We re-analyzed the database to determine if MACT floors existed for facilities with throughputs less than 7.29 million gallons of organic liquids, and determined that MACT floors exist for facilities with throughputs of less than 7.29 million gallons. Therefore, we can not support the proposed 7.29 million gallon cutoff.

However, as a result of our re-analysis of the database, we determined that throughput cutoffs for certain emission points were justified. The throughput cutoffs are now a part of the applicability criteria used to determine which transfer racks are subject to control.

Comment: Several commenters requested clarification of the relationship between the OLD rule and other existing rules and future rules.

Response: We agree with the commenters that the final OLD NESHAP must be explicit in describing the specific applicability of other 40 CFR part 63 NESHAP for sources that potentially may be drawn into more than one subpart. Section 63.2338(c)(1) of the final rule states that storage tanks, transfer racks, and equipment leak components that are part of an affected source under another 40 CFR part 63 NESHAP are excluded from the definition of affected source, even in cases where the other rule does not require a reduction in emissions from the emission source.

Comment: Several commenters stated that EPA needs to address overlap between the OLD NESHAP and other non-40 CFR part 63 existing rules, such as the Storage Tank New Source Performance Standard (40 CFR part 60, subpart Kb), the Benzene Storage Tank and Benzene Transfer Operations NESHAP (40 CFR part 61, subparts Y and BB, respectively), and Resource Conservation and Recovery Act (RCRA) regulations.

Response: We have written 40 CFR 63.2396 to address the overlap between the final OLD NESHAP and those rules cited by the commenters. If meeting the requirements of another rule does not result in an owner or operator fully meeting the requirements of the OLD NESHAP, then the owner or operator must modify the compliance methods to come into full compliance with the OLD NESHAP while remaining in compliance with the other rule.

Comment: One commenter, whose facility is subject to 40 CFR part 63, subpart Y (Marine Loading), pointed out that 40 CFR part 63, subpart SS, § 63.983(b) and (c), imposes an initial leak detection standard for closed vent systems that is more stringent than the detection standard contained in subpart Y; § 63.983(c)(1)(v) specifies only the use of methane for calibration of the instrument used to conduct the initial EPA Method 21 sweeps in subpart SS, while subpart Y is more flexible; subpart Y and subpart SS conflict on the response required if a leak is found; and, for closed vent systems that contain bypass lines, subpart Y contains an exemption on closure requirements for maintenance vents, but subpart SS does not allow that exemption. The commenter stated that this is appropriate for subpart Y due to the "batch" nature of tank vessel loading, and that it would be inappropriate to impose the subpart SS requirement on part of their facility.

Response: If an OLD emission source is required to be controlled under the final OLD NESHAP and that emission source is already controlled in a "shared" control device, then the owner or operator is required to be in compliance with both NESHAP or the NESHAP that impose the more stringent emission standard and/or work practices.

If an OLD emission source is in OLD operation part of the year and "in service" for another NESHAP for the rest of the year, then that OLD emission source is required to be in compliance with the final OLD NESHAP when that emission source is in OLD operation, even if the requirements between the two NESHAP rules are different. The owner or operator still has the option to permanently comply with whichever NESHAP provides the most stringent emission standard and/or work practices.

Comment: One commenter noted several conflicts between 40 CFR part 63, subparts SS and Y, and the proposed OLD NESHAP; specifically, performance tests on incinerators using specified test methods and conflicting language regarding the temperature monitoring location. The commenter claimed that the proposed control device evaluation in 40 CFR 63.2362(g) that would be submitted according to the requirements of 40 CFR 63.985(b)(1)(i) is an unnecessarily burdensome requirement for a facility that has source test data less than 5 years old showing that the control device more than adequately controls emissions. For such facilities, the commenter requested that existing data be allowed to be used in lieu of a design evaluation.

Response: We have written the performance test and design evaluation requirements in § 63.2362 of the final rule and Table 5 to subpart EEEE of part 63 to more clearly specify the use of the 40 CFR part 63, subpart SS, procedures and also to clarify that prior test results may be used, in many cases, to demonstrate compliance with the final OLD NESHAP. The final rule also allows owners or operators the flexibility of applying for approval to use alternative test methods.

Comment: Two commenters recommended that EPA clarify the OLD boundary by incorporating the concept of "intervening storage tanks," which has been used in several other MACT standards such as the Hazardous Organic NESHAP (HON) and the Polymers and Resins rules. Under this concept, if a bulk tank in a centralized tank farm area has received organic liquids from outside the plant site and feeds that material to another storage tank at the process unit (an "intervening storage tank"), the bulk tank is assigned to the organic liquid distribution operation and the intervening storage tank to the process unit.

Response: We have evaluated the comment concerning the concept of "intervening storage tanks" and have determined that such a concept is neither appropriate nor needed for the final OLD NESHAP. The "intervening storage tank" concept is specifically to help facilities identify which storage tanks are part of the affected source of a particular MACT source category. The intent of the final OLD NESHAP is to supplement other NESHAP and apply to all remaining unregulated storage tanks that are in OLD operation. To incorporate similar "intervening storage tank" language in the final OLD rule is at best unnecessary and at worst could lead to excluding tanks that should be covered by the final OLD NESHAP.

Comment: Several commenters recommended that EPA clarify that the emission limitations and work practice standards identified in § 63.2346 apply whenever an emission source is in OLD operation, but not when the emission

source is not in OLD operation. Commenters pointed out that the proposal stated that affected facilities must be in compliance with the emission limitations at all times except for periods of startup, shutdown, or malfunction. They felt that periods of "non-operation of the affected source" should be included on this list.

Commenters recommended that § 63.2374(c) be clarified such that for demonstrating continuous compliance data averages should only include data collected when vapors from OLD operations are being routed to the control device.

Response: It was our intent in the proposed rule that the emission limitations and work practice standards apply only when an emission source is transferring or storing an organic liquid or when an equipment leak component is in organic liquids service. Because there are no emissions from storage tanks or transfer racks during periods of "non-operation of the affected source," there is no need for the emission limitations to apply during these times. In addition to periods when the entire affected source is not in operation, there may be periods when any one of the emissions sources within the affected source is not in operation or is not in OLD operation. During these periods, the emission limitations for all other emission sources would still apply, but the emission limitations would not apply to the emission source not in OLD operation. This intention has been clarified in § 63.2350 of the final rule.

We agree with the comment that only data collected during times when emissions are being routed to the control device should be used in demonstrating continuous compliance and have written § 63.2374(c) of the final rule to the effect that data are not to be used when collected during "periods when emissions from organic liquids are not routed to the control device."

Comment: One commenter felt that the proposed rule should be modified to allow pilot flames to be turned off during flare shutdowns and when all the sources serviced by the flare are shut down.

A second commenter thought EPA should reconsider the continuous compliance requirements for thermal incinerators that utilize "bladder tanks," which collect emissions in a bladder until a sufficient quantity is collected to use the incinerator, so that the oxidizer does not have to be operated continuously. The commenter suggested changing the rule language to require sites to maintain the average fire box temperature only during times that vapors are introduced to the control device.

Response: The requirement to continuously maintain a flare pilot flame is part of the 40 CFR part 63 General Provisions, which state that a pilot flame is required for an open flare during periods when emissions may be vented to the flare. If the flare is shutdown (out of service), there is no need to require a pilot flame because no emissions will be vented to the flare. Where the emissions sources serviced by the flare are shutdown, we agree that operating a pilot flame during such periods would be nonproductive because there are no emissions to be vented to the flare. We have written Table 9 to subpart EEEE of part 63 to allow an owner or operator not to maintain the pilot flame when all emission sources serviced by the flare are shutdown (out of service). However, we are requiring in the final rule that owners and operators make a demonstration to the permitting authority that it will not experience a deviation and to keep records of each time the pilot flame is extinguished and relit.

We also agree with the commenter that it is unnecessary to maintain the average fire box temperature in thermal incinerators during periods when emissions are not vented to the incinerator. Therefore, we have written Table 9 to subpart EEEE of part 63 to clarify that the average fire box temperature in thermal incinerators need only be maintained while emissions are being vented to the control device. The final rule requires the owner or operator to monitor both this temperature and the time periods when vapors are flowing to the device. We also note that an owner or operator may have to increase the firebox temperature some time before emissions are vented back into the incinerator in order to comply with the average fire box temperature requirement.

Comment: We received several comments concerning the definition of "organic liquid" that affects the applicability of the proposed standards. One commenter asserted that the exemption of most organic liquids containing less than 5 percent HAP by weight is in violation of the requirements of the CAA. Another commenter claimed that the 5 percent HAP cutoff is legally permissible on "*de minimis*" grounds.

Two commenters recommended that EPA revise its definition of "organic liquid" to exclude liquids that are not predominantly organic in order to exclude from regulation those liquids that contain very small amounts of organic material such as predominantly aqueous or inorganic liquids. The commenters felt that these liquids should not be included in the final OLD NESHAP because they do not emit significant amounts of organics to the environment and controlling them will not provide the intended emission reductions.

Finally, several commenters added that EPA should provide a list of common materials within the petroleum industry that will not be regulated, such as kerosene (No. 1 distillate oil), diesel (No. 2 distillate oil), asphalt, and heavier distillate oils and fuel oils.

Response: The EPA disagrees that the proposed exemption of organic liquids containing less than 5 percent HAP-by-weight can be justified by *de minimis* principles. The EPA's *de minimis* authority exists to help avoid excessive regulation of tiny amounts of pollutants, where regulation would yield a result contrary to a primary legislative goal. It is unavailable "where the regulatory function does provide benefits, in the sense of furthering the regulatory objectives, but the agency concludes that the acknowledged benefits are exceeded by the costs." *EDF* v. *EPA*, 82 F.3d 451, 466 (D.C. Cir. 1996); *Public Citizen* v. *Young*, 831 F.2d 1108, 1112–13 (D.C. Cir. 1987); *Alabama Power* v. *EPA*, 636 F.2d 323, 360–61 & n.89 (D.C. Cir. 1979). Accordingly, a *de minimis* exemption to section 112(d)(3) is unavailable, because it would frustrate a primary legislative goal by carving out tons of HAP emissions from regulation. The EPA's rejection of the *de minimis* concept has already been affirmed by the U.S. Court of Appeals for the District of Columbia Circuit, in *National Lime Ass'n* v. *EPA*, 233 F.3d 625, 640 (D.C. Cir. 2000) ("*NLA*"), in which the court rejected the petitioner's claim that in light of both the high costs and low quantities of HAP at issue in that case, EPA should read a *de minimis* exception into the requirement that it regulate all HAP emitted by major sources. In that case, the Court found that "EPA reasonably rejected this argument on the ground that the statute 'does not provide for exceptions from emissions standards based on *de minimis* principles where a MACT floor exists.'" *NLA* at 640.

Contrary to the commenter's request, EPA sees no reason to revisit this fundamental issue, and rejects the assertion that both EPA and the court decided this issue incorrectly in *NLA*. Section 112 of the CAA is replete with careful definitions of volume-or effect-based limitation on regulation, indicating that Congress has already defined what amounts of HAP

emissions are too small to warrant MACT standards. The requirement to adopt MACT emission limitations, for example, applies without exception to "each category or subcategory of major sources * * * of [HAP]." CAA section 112(d)(1). For sources below the major source threshold, however, EPA has discretion to require "generally available control technologies or management practices." CAA section 112(d)(5). Congress has thus itself defined volumetrically which sources' emissions are small enough not to warrant mandatory MACT standards.

Congress likewise defined several MACT exceptions applicable where emissions have *de minimis* health effects. Section 112(d)(4) of the CAA allows EPA to establish standards less stringent than MACT for HAP with an established health threshold, so long as it sets a standard below the health threshold with "an ample margin of safety." Section 112(b)(3)(C) of the CAA directs EPA to de-list HAP—precluding section 112(d) MACT standards—if EPA determines that "there is adequate data on the health and environmental effects of the substance to determine that emissions, ambient concentrations, bioaccumulation or deposition of the substance may not reasonably be anticipated to cause any adverse effects to the [sic] human health or adverse environmental effects." Section 112(c)(9)(B)(i) of the CAA lets EPA delete source categories from the category list—the consequence again being no MACT control—if it determines that, for emissions of carcinogenic HAP, "no source in the category * * * emits such [HAP] in quantities which may cause a lifetime risk of cancer greater than one in one million to the individual in the population who is most exposed to emissions of such pollutant from the source." For noncarcinogens, EPA may delete source categories if it determines that "emissions from no source in the category or subcategory * * * exceed a level which is adequate to protect public health with an ample margin of safety and no adverse environmental effect will result from emissions from any source." CAA section 112(c)(9)(B)(ii). Moreover, in defining which source modifications trigger additional regulatory standards, CAA section 112(g)(1)(A) mentions a "greater than *de minimis* increase in actual emission of a [HAP]." This shows that Congress knew how to use the *de minimis* concept when it considered such was appropriate in section 112, and the fact that it did not use it in section 112(d)(3) supports EPA's—and the D.C. Circuit's—conclusion that it is unavailable to support an exception to a MACT floor.

The EPA does not find persuasive the commenter's reliance on *CMA* v. *EPA*, 217 F.3d 861, 866 (D.C. Cir. 2000) for the proposition that the overall purpose of section 112 is protecting human health and the environment, and that, therefore, as long as this general purpose is met, EPA may fashion *de minimis* exceptions from MACT. First, this position appears to assume that the issue is to be drawn on a clean slate, while in fact the same court has affirmed EPA's view that section 112(d)(3) provides no discretion to use a *de minimis* rationale to avoid MACT, and the *CMA* case was not faced with it. Second, the commenter appears to give prominence to an over-arching statutory goal over the specific language of the statutory provisions themselves, in assessing whether those provisions are "extraordinarily rigid" regarding EPA's otherwise-inherent *de minimis* authority; the logical extension of such an approach would be to find that no single provision in the CAA could restrict EPA's *de minimis* authority, in light of the CAA's over-arching purpose "to promote the public health and welfare." CAA section 101(b)(1). Third, the commenter does not present any statutory arguments to overcome those that EPA presented to the court—and which the court affirmed—in *NLA*, beyond noting that CAA section 112(d)(8) is even more extraordinarily rigid in requiring regulation of coke ovens than is otherwise the case for MACT standards. Finally, EPA is unable to discern the basis for the commenter's suggestion that EPA has in fact "been relying on" *de minimis* authority in the MACT program "for years," and is not aware of any instance in which EPA has explicitly created such an exception from an identified MACT floor. Therefore, and for the additional reasons discussed below, EPA does not believe it is appropriate or necessary to revisit the Agency's and the D.C. Circuit's prior conclusions regarding the availability of the *de minimis* principle in the final OLD NESHAP.

However, for the final rule, we are promulgating a 5 percent HAP by weight threshold for non-crude oil liquids in the definition of an organic liquid. No such cutoff is being adopted for crude oil. There are several reasons why we believe such a cutoff is appropriate for the final OLD NESHAP, which EPA believes support the use of a non-crude oil 5 percent cutoff without having to rely upon a legally unavailable *de minimis* theory. During the planning and development of the proposed rule, we intended to reduce HAP emissions from the distribution of organic liquid products that were either pure HAP liquids, mixtures of HAP and non-HAP liquids, or crude oils. As stated, our intent was to focus on products (including crude oil, which is a naturally occurring product) "intended for further use or processing." Therefore, we focused our data gathering efforts on five 2-digit Standard Industrial Classification (SIC) codes that we believed represented the vast majority of the facilities nationwide engaged in the distribution of what we considered to be organic liquid products.

We surveyed facilities in these five 2-digit SIC codes asking broad questions about the liquids that they distributed that contained organic HAP. In evaluating and analyzing the data, we discovered that the types of liquids containing organic HAP, including some non-product liquids and liquids with very low organic HAP contents, were more diverse than we had expected. In addition, the types of facilities engaged in distribution of such liquids, were greater than we had assumed in developing the proposed rule, as was the degree to which unforseen facility types were distributing and controlling emissions from such liquids.

As stated above, such low HAP content non-crude oil liquids were not initially anticipated to be covered by the OLD rule, and may in many cases be the result of impurities or contaminants and not the result of an intended formulation of a product. These types of non-crude oil liquids (those with small HAP contents) can be found at many facilities outside the five 2-digit SIC that we targeted. At this point, based on the data collected for the OLD rule, we cannot ascertain the representativeness of our data for those industries in other 2-digit SIC codes that we did not survey. Nor can we ascertain how many additional emission sources (controlled or uncontrolled) might need to be added to the database to adequately assess the MACT floor for these facilities and non-crude oil liquids and make final, enforceable regulatory decisions. We believe that our current data are insufficient for this purpose and do not provide enough information about the emissions, emission controls in use, or potential to reduce emissions to complete the MACT floor analyses that we believe are appropriate to address the unexpected non-crude oil liquids and facility types that we did not foresee as being subject to the OLD rule when we developed the proposal. As a result, we do not have sufficient data to develop regulatory requirements,

including those regarding emissions control and reduction, and monitoring, recordkeeping and reporting, for low HAP-content non-crude oil liquids. We also do not currently have the flexibility in our schedule to allow us to gather the necessary additional data to assess requirements for these low HAP-content non-crude oil liquids prior to the consent decree date for promulgation of the final OLD rule. Section 112(d)(3)(A) and (B) of the CAA directs EPA to base existing source MACT floor determinations on "emissions information" which EPA "has" or "could reasonably obtain." Rather than adopt requirements for low-HAP non-crude oil liquids based on insufficient data, EPA is proceeding with the final OLD NESHAP as initially envisioned and supported.

We are also concerned that if we were to lower or eliminate the 5 percent HAP content cutoff level for non-crude oil liquids, the final OLD NESHAP would have previously unforeseen impacts on a significant number of Department of Defense (DoD) facilities, at a time when the Federal government as a whole is re-assessing the extent to which it is appropriate to subject DoD facilities to regulatory requirements. There was a consensus among representatives of the DoD that the OLD rule as proposed (a 5 percent HAP content cutoff) would not impact the storage and distribution of many types of fuels and other liquids in use at military installations. However, if non-crude oil liquids with less than 5 percent HAP were included in the definition of organic liquids as written in the final OLD rule, many DoD facilities would be subject to the final rule and impacted in ways that DoD representatives have informed EPA may seriously compromise the military function. The potential impacts of facilities such as these becoming subject to the final OLD rule were not considered at proposal. No information was provided by commenters, including DoD or others, during the public comment period that would be useful in quantifying the potential impacts of lowering or eliminating the cutoff for these facilities. In light of the sensitivity of this issue, EPA believes it would be inappropriate to proceed with the final rule in a form that might cause unforeseen and as-yet un-analyzed impacts on DoD facilities.

After evaluating the issues discussed above, we have concluded that the most appropriate approach for the final OLD NESHAP, and the one that is most consistent with the CAA's directives, is to adopt a definition of organic liquid that includes a HAP content cutoff level for non-crude oil liquids. We have also concluded that the proposed level of 5 percent is a reasonable separation between our intended scope of products and those non-crude oil liquids that contain low amounts of HAP, often as impurities and contaminants.

For vapor pressure, we have only a small amount of data for non-crude oil liquids with true vapor pressures less than 0.1 psia. The data we do have are not representative of the universe of such low vapor pressure non-crude oil liquids and are not sufficient to enable us to support a MACT floor or emission standard requiring controls. We conclude that for a non-crude oil organic liquid to be subject to the final OLD rule, the organic liquid must have a total vapor pressure of at least 0.1 psia and must also contain at least 5 percent HAP by weight.

With regard to the comments about excluding organic liquids that are not predominantly HAP and including primarily aqueous or inorganic liquids, we investigated the HAP emission potential for solutions of HAP in organic liquids, inorganic liquids, and water (or mostly water). Based on consideration of the volatilization properties of organic compounds in various types of liquid media, we cannot support the suggestion for limiting the scope of the organic liquid definition. More detail on our analysis of this issue can be found in a memorandum in the docket.

Lastly, we have included a list of exempt liquids in the definition because the liquids are well defined and would exhibit such low vapor pressure that they would not exceed the 0.1 psia vapor pressure threshold.

Comment: One commenter requested that EPA clarify that the evaluation of crude oil as an organic liquid is only applicable after custody transfer.

Several commenters felt that "black oil" should be redefined based on whether it has the potential for flash emissions rather than in terms of the gas-to-oil ratio (GOR) and API gravity because petroleum transporters, petroleum marketers, and major petroleum product testing laboratories do not commonly use the gas-to-oil ratio. One commenter suggested that, for OLD MACT applicability, "black oil" should be determined solely on the basis of API gravity. This commenter also noted that for the purpose of "black oil" determination, the point of entry to the distribution system should be defined as the point of entry to the affected facility. Two other commenters felt that the determination should be made at a point that is representative of the combined crude oil stream.

One commenter provided data on crude oils handled throughout the country, including the Alaskan oil pipeline and the Valdez Marine Terminal (VMT). These data indicated that the API gravities for all of these crude oils average less than 40 degrees. For example, the blended North Slope crude oil loaded at the VMT ranges from 23 degrees to about 28 degrees, with most of it averaging 26 degrees API. The commenter concluded that if the OLD NESHAP are finalized with an exemption for crude oils having an API gravity less than 40 degrees, the effect will be to exclude virtually all crude oil from the final OLD rule.

Response: We have clarified in the final rule that only crude oil after the first point of custody transfer is subject to the final rule.

As discussed in the proposal preamble, the exclusion of black oil from the definition of crude oil (and hence from the family of regulated "organic liquids") was based on a similar exemption in the Oil and Gas Production NESHAP, 40 CFR part 63, subpart HH. Based on the comments received and additional data (*e.g.*, typical API gravities of crude oil distributed), we have discovered that most crude oil being distributed at OLD facilities would have been excluded from the final rule, even though our impacts analyses assumed most crude oil was subject to control. Moreover, in the reevaluation of our data, we determined that there are emission reduction floors for crude oil. Furthermore, the emission potential of crude oil is the same as for other organic liquids with similar HAP and HAP contents, and the total HAP emissions can actually be much larger due to the significant volumes of crude oil being distributed.

We have revised the definition of organic liquid to include all crude oil (after the first point of custody transfer) and have deleted the "black oil" exemption, the exclusion for heavier crude oils (*i.e.*, those with an API gravity less than 40 degrees), and the parameter "gas-to-oil-ratio" as a measure of applicability for crude oil. Under the final rule, crude oil will be subject to the same storage tank capacity and HAP vapor pressure criteria used to determine control requirements for other organic liquids.

Comment: We received comments stating that EPA Method 18 is not an appropriate method for determining the organic composition of liquid streams, and that only the analytical requirements of EPA Method 18 should be made applicable in the final rule.

The commenters stated that testing should not be required if a material is already known to be a regulated organic

liquid through process knowledge, an approach EPA has used in other rules, or if the material transferred is a commercial product with established specifications and is accompanied by an MSDS based on prior analysis.

Response: After reviewing the EPA's analytical test methods, we are in agreement with these commenters that EPA Method 18 is not an appropriate method for liquid analysis of the type that will be performed under the final OLD NESHAP. The EPA Method 18 is appropriate for determining the HAP content in air streams, not the HAP content in liquids. We are now specifying EPA Method 311 of appendix A of 40 CFR part 63, which is titled "Analysis of Hazardous Air Pollutant Compounds in Paints and Coatings by Direct Injection into a Gas Chromatograph."

The final rule includes provisions that allow the owner or operator of an affected OLD operation to use a variety of information available to them to determine whether a given liquid meets the HAP content criteria in the definition of "organic liquids." Information such as product data sheets or MSDS, as well as knowledge of commonly accepted formulations for certain products, may be used to designate materials as above or below the HAP content criteria.

While the owner or operator will not be required to test each liquid, EPA may require a test using EPA Method 311 (or an approved alternative) to confirm the reported content of organic HAP (from Table 1 to subpart EEEE of part 63) in the liquid. In the event of any inconsistency between information provided by the owner or operator and the values obtained using the test methods, the results obtained through the use of an approved test method (*e.g.*, EPA Method 311) will govern compliance determinations.

Comment: One commenter felt there is an issue of the reliability of determining vapor pressures at 0.1 psia and lower. Since true vapor pressure is uncertain for low volatility stocks (such as distillate oils), EPA should allow the use of a surrogate property. The commenter suggested allowing the use of a flash point of 100°F as a surrogate for the 0.1 psia vapor pressure cutoff.

Response: We agree that measured values of liquid vapor pressure become increasingly uncertain as the vapor pressure decreases. In order to avoid the difficulties of these measurements for liquids with very low volatilities, and also to be consistent with other rules such as the HON, we have changed the basis for determining the vapor pressure of an organic liquid. Under the final rule, the vapor pressure may be determined by using the specified test methods or by using a calculated value based on knowledge of the organic HAP content of the liquid. As vapor pressure may now be a calculated value, it is not necessary to use a surrogate approach. Also, we have included a list of exempt liquids in the definition of organic liquids because the liquids exempted are well defined and would exhibit such low vapor pressure that they would not exceed the 0.1 psia vapor pressure threshold. Therefore, the final rule does not incorporate the flash point approach.

Comment: Two commenters stated that the storage tank capacity and vapor pressure criteria need to be reevaluated. The commenters noted that the proposed cutoffs in Table 2 to subpart EEEE of part 63 for applicability of storage tank controls are the same as those in the HON, and stated that the HON criteria should not set a precedent for any other source category. The commenters pointed out that other MACT rules that have followed the statutory procedure for MACT floor determination, such as the Refinery MACT, have concluded that the values for these criteria should be much higher. One commenter stated that the storage tank capacity and vapor pressure applicability criteria should, in fact, be consistent with 40 CFR part 63, subpart CC (Refinery MACT I). According to the commenter, these differences lead to confusion about applicability for facilities that must comply with several MACT rules.

Response: Applicability criteria are established based on the MACT floor and beyond-the-floor determinations and are made independently for each source category. This determination depends on the data available for each category. Since the data reflect different tank sizes and liquids stored, the applicability criteria may, and do, vary from one rule to the next. Therefore, it is not necessary or appropriate that the OLD applicability criteria be the same as for the Refinery MACT. Further, based on the re-analysis of the database, the applicability criteria for the final OLD rule have been written to better reflect our OLD database and no longer matches the HON applicability criteria.

One commenter was concerned about the potential confusion differences in applicability criteria may create for facilities that must meet several MACT rules. There should be no confusion at such facilities. The OLD NESHAP will not conflict with other storage tank applicability requirements, as storage tanks that are already subject to an existing 40 CFR part 63 subpart rule will continue to be subject to that subpart. The fact that an owner or operator must comply with different NESHAP for different storage tanks simply means that the owner or operator will have to implement an accurate and more exact accounting of which NESHAP apply to which tanks. This needs to be done only once, provided storage tanks do not change source categories.

Comment: Several commenters stated that the final OLD NESHAP should include a vapor pressure threshold for transfer rack control. The commenters suggested that a 1.5 psia threshold (*i.e.*, no control for a rack if all transferred liquids are below the threshold), which was used in the HON and in the Marine Tank Vessel Loading NESHAP, be adopted. These commenters did not believe that cost-effective controls could be implemented for these low vapor pressure materials because of the low level of emissions. They also felt that mandating controls for these low volatility liquids could result in greater emissions from the control device than from the loading activities.

Response: In response to these comments, we re-examined the OLD database to determine the relationship between the current level of transfer rack control and the organic HAP vapor pressures. We determined that MACT floors consisting of the use of a control device existed for transfer racks handling liquids with vapor pressures greater than 0.1 psia at both new and existing sources. Since the MACT floor for loading activities down to this level is a closed vent and control system, we did not include a vapor pressure criterion for transfer racks in the final rule. We note, however, that transfer racks transferring non-crude oil liquids with total vapor pressures less than 0.1 psia (*i.e.*, liquids that are not "organic liquids" for purposes of the OLD NESHAP) are not subject to the final OLD rule.

Comment: One commenter suggested that EPA's proposed exemption from control for the following emission sources: (a) storage tanks below 10,000 gallon capacity, (b) transfer racks with annual throughput less than 3.12 million gallons, and (c) pumps and valves in organic liquids service for less than 300 hours per year is unlawful because it allows unregulated HAP emissions.

Response: Based on a reevaluation of our database, we have revised the emission source criteria approach for storage tanks and transfer racks in the final rule. We are, however, retaining the 300 hour per year requirement for pumps and valves. Each of these items is discussed below.

Storage tanks below 10,000 gallons capacity. At proposal, we proposed to exclude from control new tanks with capacities of less than 10,000 gallons and existing tanks with capacities of less than 20,000 gallons. This exclusion was based on other MACT rules with storage tank standards that exclude such tanks from control. We have revised the database to include only those tanks likely to be subject to the final OLD rule and re-calculated MACT floors based on the remaining tanks in the database. We retained the basic analysis methodology of examining tanks by capacity and vapor pressure ranges, using common capacity and vapor pressure ranges (*i.e.*, those frequently found in other rules) and by examining the cumulative level of control across these ranges.

Based on the revised analysis, the only MACT floors requiring emission reduction that were identified for existing tanks with less than 10,000 gallons capacity were for those tanks with capacities between 5,000 and 10,000 gallons capacities that are included in the 5,000 to 50,000 gallons capacity range containing non-crude oil liquids with a HAP partial vapor pressure equal to or greater than 4.0 psia or crude oil.

For new sources, a MACT floor requiring emission reduction was identified for tanks with 5,000 to 10,000 gallons capacities containing non-crude oil liquids with a HAP partial vapor pressure equal to or greater than 4.0 psia or crude oil. A MACT floor was also identified for tanks with capacities of 10,000 gallons or more and containing non-crude oil liquids with a HAP partial vapor pressure equal to or greater than 0.1 psia or crude oil. We have used these findings to determine the applicability criteria (tank capacity and HAP partial vapor pressure) to determine which tanks will be subject to control.

For those tanks for which the MACT floor was found to be "no emission reduction," we conducted a beyond-the-floor analysis, and we have determined that there are no feasible or cost effective beyond-the-floor alternatives for these storage tanks. Therefore, the final rule does not include control requirements for tanks for which the MACT floor was determined to be "no emission reduction."

In conclusion, the final rule is driven by the data for the OLD source category and includes capacity and vapor pressure criteria based on those data to determine which OLD storage tanks are required to be controlled and those that are not required to be controlled. Requiring no additional emission reduction from certain tanks is justified by the available data, meets the mandates of the CAA, and is not unlawful.

Transfer rack loading positions below 3.12 million gallons per year. As for storage tanks, we proposed to exclude relatively smaller transfer rack positions from control based on the requirements of other 40 CFR part 63 subparts (*e.g.*, subparts SS and YY define a low throughput transfer rack as one that transfers less than a total of 11.8 million liters/yr (3.12 million gallons per year) of liquid containing regulated HAP). This throughput is equivalent to about 9,000 gallons per day, or the filling of approximately one tank truck.

Based on a re-analysis of the data (as described for storage tanks above), we determined that this applicability criterion is not appropriate for the OLD source category. Our data re-assessment indicates that there are emission reduction MACT floors for existing and new transfer racks above and below the 3.12 million gallons per year threshold. Therefore, the final rule does not adopt the 3.12 million gallons per year exemption for transfer racks.

Equipment in organic liquids service less than 300 hours per year. The stringency of a LDAR program is based on a number of factors. These factors include the definition of "in organic HAP service" (*e.g.*, 5 percent HAP, 10 percent HAP), the leak definition (*e.g.*, 500 ppmv, 10,000 ppmv), the frequency of monitoring (*e.g.*, monthly, quarterly, annually), and exemptions for monitoring requirements (*e.g.*, difficult to monitor components, in service less than 300 hours per year). The smaller the values associated with the definition of "in organic HAP service" and the leak definition, and the more frequent the monitoring, the more effective the LDAR program (better emission reduction). The more exemptions, the less effective the LDAR program.

In examining the LDAR programs in place at OLD facilities, we evaluated the overall effectiveness of the programs, including each of the aforementioned items. In general, the majority of the LDAR programs in place at OLD facilities use a 10 percent HAP in organic HAP service definition and do not contain a 300-hour per year in service exemption because the LDAR programs tend to be State or local rules or older New Source Performance Standard-type rules. The proposed rule allowed an affected source to comply with either of two NESHAP (40 CFR part 63, subpart TT or UU) for equipment leaks. While both of these NESHAP contain an exemption for components in service less than 300 hours per year, they have an "in organic HAP service" definition of 5 percent (not 10 percent). When compared to a 10 percent "in organic HAP service" definition without a 300-hour per year exemption, a LDAR program with a 5 percent "in organic HAP service" definition with a 300-hour per year exemption is more effective in reducing emissions (*i.e.*, is more stringent). This occurs, in part, because there are more components caught by lowering the "in organic HAP service" definition than are "lost" due to the 300-hour per year in service exemption and, in part, because there are less emissions associated with components operating only 300 hours per year than from components in the 5 to 10 percent organic HAP range.

The 300-hour per year in service exemption has been provided in previous rules primarily to address equipment that has only occasional use in HAP service. Examples of such equipment are pumps and compressors used only during startup and shutdown of a process unit. Equipment in use less than 300 hours per year would be difficult to monitor within a regularly scheduled LDAR program, and very little emission reduction would be realized by including them.

The analysis of equipment LDAR programs in place within the OLD industry indicated that the 300-hour service exemption with monthly instrument-based inspections results in a level of control at least as stringent as the MACT floor level of control. Our investigation of the available control approaches for controlling equipment leaks did not identify any control approaches that would be beyond-the-floor level and also cost effective.

Therefore, for the reasons stated above, we are not removing the 300 hours per year exemption from the LDAR programs specified in the final rule.

Comment: One commenter stated that the CAA requires EPA to promulgate standards for all emission points at all major sources, and that exemptions based on capacity, throughput, and hours of service violate that requirement. The commenter noted that EPA attempts to justify the exemptions by arguing that the exempted facilities do not have a volume of emissions that warrants control, but the Agency does not claim that these emissions are *de minimis*.

Response: The EPA disagrees with the commenter's suggestion that every emission point at an affected source must be required to reduce emissions. Section 112(a) of the CAA does not state, or imply, that all emission points must be subjected to control

requirements in standards promulgated under section 112. Section 112(d)(1) allows the Administrator to distinguish among classes, types, and sizes of sources within a category or subcategory in establishing such standards. We interpret this provision for the final OLD rule, as we have for previous NESHAP, as allowing emission limitations to be established for subcategories of sources based on size or volume of materials processed at the affected source. Under the discretion allowed by the CAA to consider sizes of sources, we made the determination that certain small-capacity and low-use operations can be analyzed separately for purposes of identifying the MACT floor and determining whether beyond-the-floor requirements are reasonable. With regard to whether emissions from certain groups of sources are "*de minimis*," the commenter did not elaborate on its interpretation of this term or how it might apply in discussing the OLD applicability criteria for emission limitations.

Comment: One commenter stated that the EPA has no discretion to exempt certain OLD emission sources such as container filling, wastewater collection, and semi-aqueous waste. Several other commenters stated that the final rule should explicitly state that wastewater operations, including the treatment, storage, transfer, or discharge of wastewater, are exempt from the final OLD NESHAP. Some commenters were concerned that the rule as proposed would regulate hazardous waste transfer and conveyance systems that are collocated at manufacturing facilities that are major sources for HAP and requested that EPA allow such sites to utilize alternate LDAR programs established under 40 CFR part 265, subpart BB, and 40 CFR part 63, subpart GGG.

Response: As previously discussed, the proposed rule would reduce HAP emissions from the distribution of organic liquid products that were either pure HAP liquids, mixtures of HAP and non-HAP liquids, or crude oils, focusing on products (including crude oil, which is a naturally occurring product) intended for further use or processing. The handling of wastewater and semi-aqueous waste is not part of the distribution of organic liquid products. The definition of "organic liquid" in the final rule excludes hazardous waste, wastewater, and ballast water. In addition, the final rule clearly states that emission sources that are part of the affected source under another 40 CFR part 63 rule (such as oil and natural gas production) are not included in the affected source for the final OLD rule.

However, based on a review of data on container filling operations, we have determined that the only MACT floor for either existing or new sources is a new source floor for container filling operations. We identified one container filling operation that controls emissions by performing the operation in a total enclosure that is vented to a thermal oxidizer. This level of control meets the level 3 control for container filling found in 40 CFR part 63, subpart PP, the National Emission Standards for Containers. We have not, however, identified any technology that would achieve cost-effective beyond-the-floor control for new source container filling operations. The final rule requires owners or operators of new container filling operations to comply with the level 3 control requirements found in § 63.924 of subpart PP.

B. Emission Limitations and Work Practice Standards

Comment: A commenter claimed that EPA set the floor for new storage tanks the same as the floor for existing tanks without demonstrating that the floors reflect the best performing source, and claimed that EPA set the floor for existing transfer racks as the use of a control device with 95 percent control efficiency based on a "cursory analysis."

The commenter states that EPA's proposed emission standards do not reflect the maximum achievable degree of reduction in emissions, and that EPA failed to adequately consider beyond-the-floor standards for each of the three regulated emission sources.

Response: As a clarification, the averaging process (for either the arithmetic average or the median) is applied to the top 12 percent of sources and not to the whole data set. This approach, consisting of more than one possible way of determining floors, is a practical necessity when working with the results of an averaging process. In examining our database and evaluating it based on comments, we have used the median source of the top performing 12 percent of existing sources where there are at least 30 sources, or the median source of the top performing five sources where there are fewer than 30 sources to determine MACT floors for the final OLD rule. Our methodology for determining MACT floors for existing sources is reasonable and conforms to the legal requirements of the CAA.

In developing the proposal and performing the MACT floor analysis for storage tanks, we evaluated each of the three primary types of tanks used for storage of organic liquids. These tank types are characterized by their basic construction and are referred to as fixed roof, internal floating roof, and external floating roof tanks. The selection of which type to use in a given situation is based on factors including capacity, types of liquids to be stored, climate, throughput, and cost. The emission control approach utilized for storage tanks differs depending on the tank type. The most common emission control approach for organic liquids storage tanks is floating roof technology, installed as either an internal or external floating roof. Floating roofs with properly designed seals and gaskets have been determined to perform at the highest level of emission control in use for storage tanks. External floating roof tanks achieve a somewhat lower control efficiency, because the vapor space above the floating roof is open to the atmosphere. However, the application of floating roof technology is the best demonstrated technology for this type of tank construction. For these reasons the Agency has developed storage tank equipment standards that specify in detail the design features that must be incorporated into a compliant floating roof design.

The emission reductions that can be achieved by add-on control devices on fixed roof tanks are equivalent to the reductions that can be achieved by floating roof technology. As with floating roof technology, the performance of the various types of add-on controls are somewhat variable depending on operational factors such as the types of liquids being stored and the tank filling rate. Properly designed and operated add-on control systems have been demonstrated to achieve emission reductions of 95 percent or greater from fixed roof storage tanks.

We developed MACT floor levels of control for the range of tank capacities and HAP vapor pressure of liquids stored based on the OLD storage tank database. The MACT floor level of control that was determined from the database is the use of properly designed floating roof technology or an add-on control device achieving a 95 percent reduction in HAP emissions. The MACT floor for storage tanks at new sources is not the same as the floor for tanks at existing sources. The new source storage tank floor is more stringent because the control requirements extend to tanks storing liquids with lower vapor pressures (*i.e.*, more tanks will undergo control than at existing sources). New storage tanks in the 10,000 to 50,000 gallons capacity range will be subject to control under the final OLD rule at HAP vapor pressures as low as 0.1 psia (versus 4.0 psia for existing tanks in this same capacity range).

Based on our review of the types of control devices in use (primarily incinerators, adsorbers, and scrubbers) and the range of control efficiencies reported (approximately 20 percent to over 99 percent), we proposed that 95 percent was the most appropriate control efficiency for transfer operations. We selected this value based on the known capabilities of these control devices and on regulatory limits specified in other rules.

Following proposal, we re-analyzed our OLD database and determined that the MACT floor for transfer racks at existing and new sources is a control efficiency of 98 percent, based on the best performing sources. The 98 percent level of control has been shown to be achievable by well-designed and operated combustion devices. The choice of control options is not limited to combustion devices, however, as vapor balancing systems also achieve the required 98 percent control level where they are technically feasible.

In evaluating beyond-the-floor alternatives, we examined the ability to switch products, the ability to switch fuels, the potential for improved performance of add-on controls at already controlled sources, and the use of add-on control devices to reduce emissions from sources for which we determined the floors were "no additional emission reductions."

The emission sources subject to the OLD rule are storage tanks, transfer racks, and equipment leak components (pumps, valves, and sampling connections). The liquids that are stored in storage tanks are those liquids required by a facility or its customers. It is not feasible for a facility to switch to a lower vapor pressure liquid when its customer requires a specific liquid. Therefore, product switching is not a feasible beyond-the-floor alternative for storage tanks. For the same basic reason, product switching is not a feasible beyond-the-floor alternative for transfer racks. Finally, equipment leak components can only leak what is in the process stream that they contact. Those process streams come from OLD storage tanks and transfer racks. As product switching is not feasible for tanks and racks, it is not feasible for equipment leaks.

With regards to fuel switching, the emissions that occur from tanks, racks, and equipment leak components have no fuel sources associated with them. The emissions occur as the result of displaced vapors when loading, breathing losses, and leaks. There are no fuel sources to "switch." Therefore, fuel switching is not feasible.

The use of add-on control devices, including vapor balancing, however, represents a feasible beyond-the-floor alternative for storage tanks and transfer racks. Our analyses of beyond-the-floor alternatives for those emission sources for which we determined the floors are "no emission reduction," showed cost-effectiveness values greater than $10,000 per ton for storage tanks and greater than $50,000 per ton for transfer racks. We have determined that these values are not reasonable. Further, because add-on controls were determined to be "not cost effective," we did not evaluate the associated impacts of add-on controls for energy and other non-air quality environmental impacts. We note here that we have included in the final rule the option for transfer racks of using a vapor balancing system where technically feasible. These systems have demonstrated control efficiencies of 98 percent or greater (*i.e.*, floor levels of control).

Our investigation of the available control approaches for controlling equipment leaks did not identify any control approaches that would be beyond-the-floor level and also cost effective. We are, therefore, promulgating equipment leak standards based on the floor level of control determined from the OLD database.

Comment: Commenters stated that the proposed rule text did not indicate whether the entire CAA section 112 HAP list or the proposed OLD Table 1 to subpart EEEE of part 63 HAP list is the appropriate chemical list to use for the various determinations and performance demonstrations, even though the proposal preamble notes that organic HAP listed on Table 1 to subpart EEEE of part 63 (and all crude oil except black oil) are the "regulated liquids." One commenter noted that the proposal did not include emission standards for 24 of the 93 organic HAP that EPA claims are emitted from OLD operations, based on the Agency's claim that the HAP for which standards were not set are lower in volatility and have lower potential to be emitted.

Response: We have written Table 1 to subpart EEEE of part 63 to include all of the organic HAP identified as being present in OLD liquids. The control devices and work practice standards in the final OLD rule affect all of the HAP in an OLD liquid, even those that have lower emission potential due to their low vapor pressure. By including all of the known organic HAP in Table 1 to subpart EEEE of part 63, there is no longer any inconsistency between the HAP emitted by OLD operations, the HAP used to determine whether control is required, and the HAP used to demonstrate compliance. Therefore, while the initial determination of whether an entire facility meets the criteria for being a major source is based on all the HAP listed in the CAA, compliance with the final OLD rule is based only on the 98 HAP found in Table 1 to subpart EEEE of part 63.

Comment: One commenter pointed out that EPA has proposed allowing sources to meet a standard for TOC emissions rather than meeting any standard for HAP, stating that the Agency cannot credibly claim that TOC is a valid surrogate for all HAP that OLD facilities emit. In addition, the TOC option would result in control of even fewer HAP. For these reasons, the commenter believes this provision of the proposal is unlawful.

Response: The primary format for the emission limits in the final OLD rule is a control efficiency standard for organic HAP. At proposal, we offered the option of complying with the percent reduction standards using a TOC format. The use of "surrogate" pollutants is an accepted practice in environmental regulation, because it is often reasonable to infer similar behavior among members of a class of pollutants that share a common attribute. *Dithiocarbamate Task Force* v. *EPA*, 98 F.3d 1394, 1399 (D.C. Cir. 1996); *NRDC* v. *EPA*, 822 F.2d 104, 125 (D.C. Cir. 1987). Significant regulatory cost and time can be saved by relying on that relationship; monitoring, sampling, and recordkeeping can be reduced when a surrogate pollutant, rather than numerous individual pollutants, are tracked. Specifically, EPA's use of a surrogate pollutant in the MACT program has been upheld as reasonable in judicial review, where the court held that if control of the surrogate pollutant is the means by which sources achieve reductions in multiple HAP, EPA may require surrogate control without quantifying the reduction in HAP thus achieved. *NLA* v. *EPA*, 233 F.3d 625, 639 (D.C. Cir. 2000). After evaluating the comments, we have retained the optional TOC measurement format, but have added a requirement for a demonstration by the owner or operator that the HAP emission reduction achieved is at least as stringent as the TOC emission reduction for their affected sources. To make this demonstration, the owner or operator will have to show that the ratio of captured organic HAP-to-TOC is at least 1-to-1, such that it can thereafter be assured that capture of TOC will result in capture of organic HAP to at least as stringent a level as required. After the initial demonstration to establish the relationship between HAP and TOC emission reductions, use of the TOC

format will be an acceptable alternative emission limit.

For the 20 ppmv outlet concentration standard, the use of TOC is an acceptable option without an equivalency determination. Because measured TOC in a gas stream includes all HAP, and may include some organic compounds that are not HAP, the concentration of HAP at the outlet of a control device will always be less than the measured TOC value. Thus, the limitation of TOC to a maximum concentration of 20 ppmv will always result in HAP emissions of 20 ppmv, or less.

We initially selected the TOC format as a possible alternative for the standards to provide flexibility for source owners and operators, while still requiring the MACT level of emission control to be achieved. The requirements of the final OLD rule will accomplish both objectives by allowing the use of a demonstrated surrogate, in appropriate cases. The approach adopted in the final rule will ensure that in all cases where the TOC surrogate is used, the correlation between the surrogate and organic HAP will have been demonstrated, and that control of the surrogate will achieve emission reductions of organic HAP at least as stringent as under the organic HAP limit.

Comment: Several commenters stated that the proposed rule fails to provide for the use of a number of proven emission reduction options and focuses primarily on closed vent systems and control devices. The commenters stated that EPA must allow the option of vapor balancing for storage tank and transfer rack emission reduction. Further, emission reduction options such as cooling the liquid in a storage tank to reduce vapor pressure, maintaining an inert gas blanket, or routing emissions to a fuel gas system or to a process should be specifically stated to be acceptable alternatives for compliance with the proposed rule.

Response: We have considered these comments and reviewed the provisions of the HON and other MACT rules that allow the alternative of vapor balancing, and we have added vapor balancing to the final rule as an alternative control approach for transfer racks (*i.e.*, to control HAP vapors displaced during the loading of transport vehicles). Vapor balancing is a highly efficient (98 percent or greater) means of reducing the emissions of vapors displaced during the loading of transport vehicles. Vapor balancing to a fixed roof tank with an add-on control device may be a viable option for facilities that utilize this type of tank. However, vapor balancing is not technically feasible in all cases.

We recognize that, for the variety of liquids and equipment configurations that exist at OLD operations in many different industries, there may be numerous control approaches that would reduce HAP emissions to a degree equivalent to an end-of-pipe control system. Cooling a liquid may reduce its actual vapor pressure below the threshold for control in a storage tank, in which case the storage tank control requirements would not apply. The final rule addresses the routing of emissions to a fuel gas system or a process in §§ 63.2346(a) and (b) and 63.2378(d). We have not added the use of an inert gas blanket as an approved control measure because we have no evidence (and the commenters did not provide any) that this approach inherently provides the level of control required by the final standards. However, § 63.2346(g) of the final rule provides for requests for approval to use any other alternative approach. We have added a reference to § 63.177 of the HON to provide a more structured method for receiving approval of approaches that are not specifically listed in the final rule.

Comment: One commenter requested that the availability of the floating roof option be limited to those storage tanks storing stock with an annual average true vapor pressure of less than 11.1 psia. Proposed Table 4 allows compliance with 40 CFR part 63, subpart WW (floating roof control), as an alternative compliance measure for storage tanks, but without this vapor pressure restriction. Other EPA rules require controls on tanks storing stocks with vapor pressure greater than 11.1 psia (if the tank is in the capacity category that is subject to controls), but they do not allow the use of floating roofs as a control option for these higher volatility stocks. Several commenters also recommended that the storage tank definition should exclude pressure vessels designed to operate in excess of 204.9 kilopascals (29.7 psia) and without emissions to the atmosphere.

Response: We have written the final OLD rule to limit the application of floating roof technology to storage tanks containing organic liquids with an organic HAP annual average true vapor pressure less than 76.6 kilopascals (11.1 psia). For affected tanks with liquids ≥11.1 psia, only a closed-vent system and control device may be used. The OLD storage tank definition has also been written to exclude from OLD coverage pressure vessels designed to operate in excess of 204.9 kilopascals (29.7 psia) and without emissions to the atmosphere.

Comment: One commenter noted that EPA proposed to regulate equipment leaks through work practice standards, and EPA has not determined that it is not feasible to prescribe or enforce an emission standard. In fact, EPA notes in the TSD that leakless equipment, such as seal-less pumps, can "eliminate emissions entirely."

Response: We have previously determined in the development of rules such as the HON that emission standards (in the format of a numerical emission limit) are not feasible for equipment leaks. Under section 112 of the Act, national emission standards must, whenever possible, take the format of a numerical emission standard. Typically, an emission standard is written in terms of an allowable emission rate (mass per unit of time), performance level (*e.g.*, 90 percent control), or an allowable concentration. These types of standards require the direct measurement of emissions to determine compliance. For some source types, emission standards cannot be prescribed because it is not feasible to measure emissions. Section 112(h)(2) of the CAA recognizes this situation by defining two conditions under which it is not feasible to establish an emission standard. These conditions are: (1) If the pollutants cannot be emitted through a conveyance designed and constructed to emit or capture the pollutant; or (2) if the application of measurement methodology is not practicable due to technological and economic limitations. If an emission standard cannot be established, EPA may instead establish a design, equipment, work practice, or operational standard or combination thereof.

For equipment leak sources, such as pumps and valves, EPA has previously determined that it is not feasible to prescribe or enforce emission standards. Except for those items of equipment for which standards can be set at a specific concentration, the only method of measuring emissions is total enclosure of individual items of equipment, collection of emissions for a specified time period, and measurement of the emissions. This procedure, known as bagging, is a time-consuming and prohibitively expensive technique considering the great number of individual items of equipment in a typical process unit. Moreover, this procedure would not be useful for routine monitoring and identification of leaking equipment for repair.

While we did not include this rationale in the OLD proposal, emission

standards in the form of numerical emission limits are not feasible for components subject to the OLD equipment leak regulations, and we have included the rationale in the final rule for establishing the equipment leak standards under CAA section 112(h).

The use of leakless equipment, as discussed in the TSD, may not be compatible with many of the liquids transferred at OLD sources. For example, seal-less pumps use the pumped liquid for lubrication and cooling, and some transferred liquids may not be adequate in this capacity. Also, this equipment can develop leaks after a period of time, which would require an LDAR program similar to the program in place for traditional equipment. For OLD operations, we have not developed enough experience and do not have data to indicate that equipment emissions at these operations justify this extreme type of reduction approach. The LDAR program represented in the final rule is being used successfully throughout industry to maintain low leakage rates from equipment.

Comment: Several commenters believe that EPA should not require instrument LDAR to control equipment leaks at OLD facilities. They said that instrument scanning for equipment leaks is impractical and not cost-effective, and they recommended that the OLD MACT rule specify a sensory (sight, sound, smell) leak detection and repair program similar to that in the Gasoline Distribution MACT rule, 40 CFR part 63, subpart R. One of the commenters felt that many OLD sources are already subject to regular Coast Guard inspection as well as EPA's SPCC plan requirements. The gains from additional LDAR requirements on the same piping must be quite limited but would come with a substantial burden.

Another commenter noted that the preamble states that the Agency found that an instrument-based LDAR program similar to the HON represents the MACT floor, but the OLD MACT rule generally applies to facilities similar to bulk gasoline terminals. Consequently, Table 4 Item 3 should state: "You must comply with the requirement of subpart R of this part."

Response: In our MACT analysis, we determined that the MACT floor for existing sources is an instrument-based LDAR program. We further determined that this is the best system of emission reduction available, so we selected it as MACT for existing and new sources. Therefore, allowing a sensory program would not represent MACT because such programs have not been demonstrated to the Administrator's satisfaction to be equivalent to equipment-based programs for OLD operations. We specifically requested data to show that sensory programs would achieve the MACT level of control. In the development of 40 CFR part 63, subpart R, industry provided such data for gasoline and the final rule allows sensory programs. The Agency has received no data to support the claim that sensory programs would achieve equivalent control for OLD operations. Therefore, we have not written the equipment leak standards in the final rule as requested by the commenters. The final rule provides flexibility by allowing LDAR programs that are consistent with the provisions of 40 CFR part 63, subpart TT, UU, or H.

C. Testing, Compliance Requirements, and Monitoring

Comment: One commenter felt that proposed Table 5 to subpart EEEE of part 63 needs to be revised to allow for design evaluations in lieu of performance testing for non-flare control devices controlling emissions from storage tanks, as 40 CFR part 63, subpart SS specifies. In proposed § 63.2362, there is no language explaining specifically when a design evaluation may be done in lieu of a performance test. In addition, it appears that you must conduct a performance test to demonstrate compliance with emission limits in Table 2 to subpart EEEE of part 63 for both storage tanks and transfer racks. The commenter provided suggested revised language to clarify § 63.2362 through references to applicable provisions of subpart SS.

A second commenter noted that the text of proposed § 63.2354(a) pertaining to "other initial compliance demonstrations" was imprecise and confusing, since there is nothing other than performance testing requirements in 40 CFR 63.7(a)(2).

One commenter noted that a source that qualifies as an existing source may already be obligated to perform initial performance tests as a condition of a new source review construction permit. In the event of overlapping requirements to perform initial performance tests, there should be coordination of the schedule by which the testing is to be performed.

Two other commenters noted that proposed § 63.2358 would require performance testing of a control device used to comply with the OLD rule even if it is the same control device already tested and in use for compliance with another 40 CFR part 63 NESHAP standard. They felt that a facility that has already conducted performance testing to comply with a more stringent NESHAP should be able to use those test results in place of a new performance test.

Response: We have written § 63.2354 of the final rule and Table 5 to subpart EEEE of part 63 to clarify that design evaluations may be used in lieu of performance testing for demonstrating initial compliance for nonflare control devices. The requirements in 40 CFR 63.985(b)(1) were developed to ensure that design evaluations include adequate documentation to demonstrate that the control device being used achieves the required control efficiency. By specifically listing this alternative to performance testing in the final OLD rule, we have provided additional flexibility to owners or operators and increased uniformity among the other MACT rules that affect them.

We have also written the language in § 63.2370 of the final rule to clarify that the initial compliance demonstrations referred to in that section are those initial compliance requirements contained in Tables 6 and 7 to subpart EEEE of part 63. We have clarified that the General Provisions in § 63.7(a)(2) impose a schedule for the performance testing, while design evaluations are to be submitted in the Notification of Compliance Status per § 63.985(b)(1) of 40 CFR part 63, subpart SS.

Under 40 CFR 63.7(h), the owner or operator of an affected facility may request a waiver of the performance test requirements. Individual performance tests may be waived if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis. The provisions allowing for submission of a request for a waiver of the performance test, accompanied by supporting information such as a documented performance test previously conducted on the device, should avoid the situation of overlapping tests.

Comment: One commenter stated that EPA has failed to mandate adequate continuous monitoring requirements and that, at a minimum, EPA must establish requirements that provide a reasonable assurance of compliance. As an example, EPA did not propose the use of continuous emission monitoring systems (CEMS), but rejected them on cost grounds without indicating why the costs are too high. Another commenter noted that 40 CFR part 63, subpart SS (§ 63.990(c)), allows for use of organic monitoring device CEMS as an alternative to the continuous parameter monitoring systems (CPMS) for which operating limits are to be established. The final OLD rule should include the same allowance.

Response: Section 112 of the CAA does not require EPA to impose a CEMS requirement in MACT standards. Instead, EPA has substantial discretion in exercising its technical expertise to devise a monitoring system that assures compliance with applicable requirements. *NLA* v. *EPA*, 233 F.3d 625, 635 (D.C. Cir. 2000); *Marsh* v. *Oregon Natural Resources Council*, 490 U.S. 360, 377 (1989). Particularly, the D.C. Circuit has already ruled that parameter monitoring requirements provide the necessary assurance of continuous compliance with applicable requirements and enhance the enforceability of emission standards, as required by the CAA. *NRDC* v. *EPA*, 194 F.3d 130, 134–37 (D.C. Cir. 1999). The commenters should note that the proposal included a requirement (in § 63.2366(a)) to install, operate, and maintain a CPMS on each control device installed under the final OLD rule. These CPMS continuously measure an operating parameter of the control device that influences emissions (such as temperature inside a thermal incinerator, vacuum achieved during the desorption cycle of a carbon adsorption system, etc.). They have been widely prescribed in several other MACT rules and are specified under the monitoring requirements of 40 CFR part 63, subpart SS. We consider properly selected CPMS to provide a reasonable assurance of compliance with the applicable requirements established in the final OLD rule. Deviations from the established values (operating limits) for these parameters must be reported by the facility in their periodic reports to EPA.

Because CPMS are judged to provide a reasonable assurance of compliance and are generally less expensive to install and operate, a requirement to use CEMS is not necessary. While we are not requiring the use of CEMS in the final OLD rule, facilities may request to utilize CEMS as an alternative monitoring method under § 63.8 of the General Provisions.

In addition, we have added an option for the use of organic monitoring devices (one type of CEMS) to Table 9 to subpart EEEE of part 63. In accordance with the 40 CFR part 63, subpart SS, requirements in § 63.990(c), an organic monitoring device may be used (as an alternative to CPMS) where absorbers (scrubbers), condensers, and carbon adsorbers are used to meet a weight percent emission reduction or a ppmv outlet concentration requirement. Organic monitors provide a reasonable assurance of compliance by quantifying exhausted total organic compounds (pollutants), which in turn provides an indication of the proper operation of the control device. A properly operating control device will continue to achieve the required control levels for organic HAP specified in the final OLD rule.

The alternative of installing and operating either CPMS or CEMS, in conjunction with effectively managed control devices, will provide a reasonable assurance of compliance with the final OLD rule's requirements.

Comment: Several commenters asserted that EPA has proposed installation, operation, and maintenance requirements for continuous parameter monitoring systems in § 63.2366 of the final rule that are wasteful, unnecessary, and in some cases infeasible and will have environmentally negative impacts. Due to the significant problems associated with the proposed continuous parameter monitoring system requirements, EPA should withdraw these requirements from the OLD final rule and use the existing subpart SS requirements for continuous monitoring systems.

Response: We have decided not to include the performance specifications for CPMS in the final OLD rule as they were proposed. We have clarified in the final rule that owners and operators must comply with the continuous monitoring provisions of subpart SS. Since owners and operators subject to the final OLD rule are required to comply with the requirements of subpart SS, they are already required to follow written performance specifications. We have concluded that the requirements in subpart SS are adequate to ensure that CPMS are properly operated and provide reasonable assurance of continuing compliance with the standards.

In a separate action, we are currently developing performance specifications for CPMS that we intend to propose to be followed by owners and operators of all sources subject to standards under 40 CFR part 63. We decided it would be premature to promulgate performance specifications for the final OLD rule when the performance specifications that would ultimately be promulgated in the General Provisions of 40 CFR part 63 may be significantly different as a result of possible public comments received on that rulemaking.

Comment: One commenter stated that a minimum or maximum parameter monitoring limit should be established based on the parameter values measured during the performance test and supplemented by engineering assessments and/or manufacturer's recommendations. Nowhere in the proposal preamble, 40 CFR part 63, subpart EEEE, or any of the referenced standards is there any indication of how operating limits are established. The final OLD rule should allow the facility to establish the operating limits necessary to achieve the requirements of Table 2 to subpart EEEE of part 63. This would be consistent with the HON. In addition, the conditions for conducting performance tests should be consistent between Table 12 to subpart EEEE of part 63 (§ 63.7(e)(1)) and § 63.997(e)(1) of 40 CFR part 63, subpart SS, to avoid confusion.

Response: We have included in the final OLD rule a requirement for the owner or operator to develop and submit a monitoring plan according to the requirements in § 63.985(c) of 40 CFR part 63, subpart SS. The monitoring plan must specify the parameters that an owner or operator proposes to monitor and the range of acceptable values for each parameter. The final OLD rule specifies parameters that must be monitored unless the owner or operator chooses to request permission to monitor an alternative parameter. The final OLD rule does not, however, provide specific ranges of acceptable values for the monitored parameters. Owners or operators must establish monitored parameter limits based on performance testing or design evaluation information. Thus, the owner or operator now has the flexibility to establish monitoring parameter limits that are most appropriate for assuring that their particular equipment complies with the emission limitations.

Comment: Two commenters stated that, in Tables 3 and 9 to subpart EEEE of part 63, compliance with the operating limits should be based on a daily average value instead of an hourly average. They claim that using an hourly average as the basis for compliance with the operating limit is a very stringent requirement and is in direct conflict with numerous 40 CFR part 63 standards. They also claim that the use of daily averages instead of hourly averages supports every legitimate need of EPA's Enforcement Office, while still making compliance with the final OLD rule possible.

Response: We have evaluated the changes recommended by the commenters and have modified Tables 3 and 9 to require that daily average values of recorded parameters be used to determine compliance. Daily average values have been considered by EPA in other MACT rules to be sufficient to demonstrate compliance for the types of control devices in use within this industry. We concluded, after further evaluation, that an hourly average may not be sufficient to account for normal, short-term fluctuations of operating

parameter values. Also, the parameter monitoring limits are normally established during performance testing that covers a span of three, 1-hour runs. This testing period helps ensure that short-term variations in operating conditions (temperature, flow rate, concentration, etc.) do not inappropriately bias the overall average. It is consistent with EPA policy developed in other MACT rules and with good engineering judgement to allow daily average values to be used to determine compliance. It should also be noted that in cases where an emission source operates for a total of less than 24 hours at a time, the average recorded values must comply over the total operating period.

Comment: One commenter stated that the non-applicability of the emission limits during periods of SSM is unclear and needs to be addressed, and recommended that specific language in § 63.2378, patterned on 40 CFR §§ 63.102–103 or 63.480(j) regarding operation during SSM, be included in the final OLD rule.

Response: We have written the language in § 63.2378 to clarify the applicability of the emission limitations during periods of SSM. While the emission limitations still apply during periods of SSM, deviations from the emission limitations during these periods are not automatically considered to be violations if the owner or operator demonstrates that they have followed the requirements of their SSM plan. Paragraphs (b)(2) of § 63.2378 require that control devices be operated during periods of SSM if possible without damaging the devices and paragraphs (b)(3) require that appropriate measures be taken to minimize emissions during periods of SSM. The final OLD rule does require, in § 63.2386(d), that deviations from the emission limitation that occur during periods of SSM be reported in the semiannual compliance report.

Comment: The same commenter stated that proposed § 63.2378(d) is unnecessary and confusing and should be deleted, stating that SSM requirements are adequately addressed in the recently amended General Provisions and no argument has been made to justify deviating from those provisions.

Response: As discussed in the previous response pertaining to SSM requirements, we have clarified in the final rule that deviations occurring during periods of SSM must be reported in the semiannual compliance report even though they are not automatically considered to be violations of the emission limitation. The result is more consistency between the final OLD rule and other recently promulgated rules and also provides the EPA with information necessary to decide on a case by case basis if further documentation should be requested from a facility.

Comment: Several commenters felt that EPA should allow storage tanks with nonconforming seals to upgrade the seals up until the next time the tank is out of service, but no more than 10 years after rule promulgation. For an existing affected source, the proposed OLD rule would have required compliance with the emission limitations and work practice standards for existing sources no later than 3 years after the effective date of the final rule. Other MACT rules with storage tank provisions recognize that a 3-year compliance schedule would typically result in an increase in emissions because the emissions associated with emptying and degassing the tanks for performing the required alterations can be greater than the emission reductions that those alterations would achieve.

Response: In response to these comments, we reviewed the allowances made in other MACT rules regulating storage tanks, and also the Generic MACT standards for storage vessels, 40 CFR part 63, subpart WW, which are an allowable alternative (in Table 4 of the proposed rule) to the 95 percent emission limit.

The Gasoline Distribution MACT rule (40 CFR part 63, subpart R) allows a 3-year compliance period for upgrading external floating deck rim seals and for applying controls (gaskets, etc.) to deck fittings. However, if only the fitting controls are needed for a particular external floating roof tank to achieve compliance, the facility may wait until the next scheduled degassing and cleaning of the tank (or up to 10 years) to install the fitting controls. Subpart WW of 40 CFR 63.1063(a)(2)(ix) is similar to the Gasoline Distribution rule in that fitting controls may be installed up to 10 years after promulgation.

The Petroleum Refinery MACT rule (40 CFR part 63, subpart CC) allows up to 10 years to achieve compliance for existing floating roof storage tanks, but gives fixed-roof tanks only 3 years to comply due to the much greater emission reduction achieved for fixed-roof tanks.

Analysis of the emissions created by a tank degassing and cleaning event were performed under both the Gasoline Distribution and Refinery rules. We agree that for OLD storage tanks, the net cumulative emissions from performing a special cleaning and degassing to bring a floating roof tank into compliance would be greater than from allowing an OLD operation to wait until a scheduled cleaning event to make these modifications. Therefore, the final OLD rule includes a provision to allow a facility up to 10 years to convert the rim seals or deck fittings on existing floating roof tanks. However, the analysis for the Refinery rule showed that the emissions from degassing and cleaning fixed-roof tanks can be balanced within 1 year by the reductions achieved by applying the subpart WW controls (specific floating roofs and seals) or a 95 percent efficient control device. Therefore, existing fixed-roof tanks are required in the final rule to achieve compliance within 3 years after the effective date.

The final OLD rule is written to be consistent with the overall CAA goal of reducing HAP emissions. In a situation such as the control of this type of storage tanks, strictly adhering to the 3-year compliance timeframe to implement the MACT floor level of control actually results in increased emissions. Thus, if our goal is to reduce HAP emissions, we are faced with a choice of allowing facilities more time to comply with the MACT level of control or not require that they comply at all. The approach taken achieves more HAP emission reductions than would be achieved by not requiring facilities to meet the MACT level of control.

D. Notifications, Reports, and Records

Comment: One commenter stated that the provisions of proposed § 63.2386(c)(4) and (d) (information to be included in semiannual Compliance reports) are too broad and EPA has not indicated why such broad applicability is needed and what useful purpose repeated submittal of information will serve.

Similarly, another commenter requested that EPA revise § 63.2386(d) concerning the first Compliance report because the records requested in § 63.2386(d)(1), (4), and (5) will literally require the submission of reams of paper with each Compliance report.

Response: We have reviewed the proposed requirements related to the content of the initial notification of compliance status (NOCS) and subsequent compliance reports. We agree that, to the extent that the initial NOCS includes the information necessary to understand the OLD activities at the site, this information need not be reported again in subsequent compliance reports unless there are substantive changes affecting applicability or organic HAP emissions. Therefore, we have streamlined the referenced paragraphs to eliminate

duplicated information (but also to require the initial Compliance report to contain any updated or final facility information that was not reported in the NOCS).

Comment: One commenter stated that language added April 5, 2002, to 40 CFR 63.10(d)(5)(i) of the General Provisions concerning reporting the number, duration, and a brief description of each SSM is unnecessarily burdensome for OLD-type operations, where there are many individual components, any of which can be undergoing SSM activities independent of the other components. The commenter suggested that the approach used in the HON offers reasonable relief and that it be used. Specifically, the commenter recommended that requirements for recordkeeping and reporting be for "startups, shutdowns, and malfunctions during which excess emissions occur."

Two other commenters expressed concern with the immediate SSM reporting requirement in Table 11 to subpart EEEE of part 63, item 2. They stated that this requirement should be made consistent with the HON, which allows these events to be reported in the next semiannual Compliance report.

Response: The amount of information required in the amended General Provisions for the SSM reports does not represent an undue burden for OLD operations. We believe that the additional information required under the amended General Provisions is useful to the EPA in gaining an understanding of the frequency, duration, and types of SSM activities at an affected source. Because sources are required to minimize emissions to the extent which is consistent with safety and good air pollution control practices during periods of SSM, gaining an understanding of the overall operation of an affected source is important. Therefore, we have retained the requirement in § 63.2386(c)(5), which references the General Provisions. We have also retained the requirement in Table 11 to subpart EEEE of part 63, item 2, which specifies that an immediate SSM report must be submitted if the owner or operator takes an action that is not consistent with their SSM plan. We concluded that a failure to follow an approved SSM plan should not go unreported for a period of time that could be almost 6 months. In those cases where the owner or operator follows their SSM plan, reporting in the next scheduled compliance report is allowed under Table 11 to subpart EEEE of part 63.

Comment: Two commenters expressed concern with proposed § 63.2378(b), which implies that if the operator starts up or shuts down a control device and it does not meet the 1-hour average temperature because it only ran for 15 minutes of a given hour, then the operator has to report that they did not meet the required temperature even though the temperature during the actual loading operation may have met the requirements. One of the commenters stated that this results in much more recordkeeping and reporting than the HON, Polymers & Resins MACT rules, or 40 CFR part 63, subpart SS, for no environmental or compliance benefits.

Response: We have written the language in § 63.2378 to clarify the applicability of the emission limitations during periods of SSM. While the emission limitations still apply during periods of SSM, deviations from the emission limitations during these periods are not automatically considered to be violations if the owner or operator demonstrates that they have followed the requirements of their approved SSM plan. Paragraphs (b)(2) require that control devices be operated during periods of SSM if possible without damaging the devices and paragraph (b)(3) require that appropriate measures be taken to minimize emissions during periods of SSM. The final OLD rule does require, in § 63.2386(d), that deviations from the emission limitations that occur during periods of SSM be reported in the semiannual compliance report, even though they are not automatically considered to be violations of the emission limitations. It should be noted that the averaging period has been written as daily averages of monitored parameters and, also, that monitoring is only required during periods of operation of the emission source. In the commenters example of a source operating for only 15 minutes, if the monitored parameter meets the operating limitation during that period of operation, it would not be considered a deviation.

E. Definitions

Comment: Several commenters felt that EPA should revise the definition of annual average true vapor pressure in proposed § 63.2406, as there is no good reason to require annual recalculation of the average ambient temperature. The referenced method for determining true vapor pressure (API 2517) uses the normal average annual temperature. This is published by the National Climatic Data Center as a cumulative average over many years, and thus may be considered a constant for a given location.

Commenters stated that the temperature basis used for vapor pressure determination should be related to the actual facility emission potential and consistent with the regulatory basis. Two of the commenters stated that the vapor pressure determination for storage tank applicability should be based on the annual average temperature of the stored organic liquid.

Response: We agree that the average annual temperature for a given location is not likely to vary from year to year to the extent that, if all other factors are unchanged, it will have a noticeable effect on emissions. Thus, annual recalculation of this temperature is unnecessary and we have written the definition in the final OLD rule to reflect this. As suggested by one of the commenters, we have also added the term "actual annual average temperature" to clarify that the actual liquid temperature should be used in determinations of vapor pressure.

We have also written the definition of "annual average true vapor pressure" so that it is based on the actual annual average temperature of the liquid, and annual recalculation of the vapor pressure value is not needed.

Comment: One commenter suggested that in the definition of black oil, EPA should delete the word "hydrocarbon" and the parentheses around "petroleum" to ensure clarity of intent. It is possible for a chemical plant to bring onto or ship out from a plant an oily, black hydrocarbon liquid that could meet the other criteria of this definition. The commenter believes that EPA intends that black oil be a technical term related only to petroleum liquids.

Response: We have deleted the term "black oil" from the final rule. All crude oil will now be subject to the requirements under the final OLD rule.

Comment: One commenter recommended that EPA use the proposed § 63.2334(b) definition of "organic liquid" in § 63.2406 (Definitions) to specifically exclude "black oil" and gasoline. Another commenter recommended that EPA revise the organic liquid definition to make clear the intent that the HAP content cutoff (5 percent by weight) applies to liquids other than crude oil.

Response: We have written the definition of "organic liquid" to clarify the intended meaning of this term in the final OLD rule and have removed the description of organic liquids from § 63.2334(b). We have included a 5 percent cutoff level for defining non-crude oil liquids as "organic liquids."

Comment: Many commenters suggested changes to the definition of

storage tank. One commenter stated that EPA should clarify that the rule only applies to stationary tanks. The proposed definition stated that the term means a stationary unit, and then cited several examples of non-stationary units. If these examples were to be interpreted as constituting the only non-stationary units that are not subject to the rule, then other portable tanks and containers could be improperly construed as being subject to the rule. Several commenters recommended that the storage tank definition should exclude pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere. Three commenters recommended that the storage tank definition be changed to clearly include blending tanks in the affected source and that, therefore, storage tanks and transport vessels used for "incidental mixing and blending" are a part of the OLD affected source. The commenters maintained that it must be clear that the OLD rule does not exclude from the affected source those storage tanks that have the ability to practice "incidental blending and mixing to maintain product specifications."

A final commenter recommended that vessels permanently attached to motor vehicles such as trucks, tank cars, barges, or ships be excluded from this definition (per the definition in the HON).

Response: We are in agreement with the commenters concerning the types of tanks intended to be covered by the term "storage tank." We have written the definition to make it more consistent with other rules (such as the HON and the Miscellaneous Organic NESHAP) and to reflect suggestions of the commenters.

Comment: Two commenters suggested that the definition of transfer rack be amended by deleting the "physically separate" criterion because the 11.8 million liter (3.12 million gallon) throughput cutoff in the OLD rule is based on each transfer rack loading position and not the transfer rack as a whole. The last sentence in the transfer rack definition was also included in the HON subparts F and G definitions for loading rack, in §§ 63.101 and 63.111. Under the HON, this sentence was important to enable one to distinguish between the terms "transfer rack" and "loading rack" when making the Group 1/Group 2 determination. This Group status was based on throughput of the entire transfer rack and not each transfer rack loading position.

Response: We are retaining the definition as proposed for "transfer rack," including the "physically separate" criterion, because we have written the description of the transfer rack emission source subject to emission standards from each loading position to the entire transfer rack, consistent with other air emission control regulations for volatile organic and petroleum liquid transfer operations. In the data reassessment we performed after proposal, we also found that the reported transfer rack data were sufficient to develop a MACT floor level of control for transfer racks but not for individual loading positions.

VI. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), EPA must determine whether a regulation is "significant" and, therefore, subject to Office of Management and Budget (OMB) review and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more, or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal government communities;

(2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligations of recipients thereof; or

(4) raise novel or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, it has been determined that today's final rule is not a "significant regulatory action" because it will not have an annual effect on the economy of $100 million or more and is therefore not subject to OMB review.

B. Paperwork Reduction Act

The information collection requirements in the final rule have been submitted for approval to the Office of Management and Budget under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* (ICR No. 1963.02) The information requirements are not effective until OMB approves them.

The information requirements are based on notification, recordkeeping, and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A), which are mandatory for all operators subject to national emission standards. These recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414). All information submitted to the EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to EPA policies set forth in 40 CFR part 2, subpart B.

The final rule will require maintenance inspections of the control devices but will not require any notifications or reports beyond those required by the General Provisions. The recordkeeping requirements require only the specific information needed to determine compliance.

The annual monitoring, reporting, and recordkeeping burden to affected sources for this collection (averaged over the first 3 years after the effective date of the promulgated rule) is estimated to be 137,170 labor-hours per year, with a total annual cost of $7.5 million per year. These estimates include a one-time performance test and report (with repeat tests where needed), one-time submission of an SSMP with semiannual reports for any event when the procedures in the plan were not followed, semiannual compliance reports, maintenance inspections, notifications, and recordkeeping.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations are listed in 40 CFR part 9. When this ICR is approved by OMB, the Agency will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number for the

approved information collection requirements contained in the final rule.

C. Regulatory Flexibility Analysis

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the final rule. The EPA has also determined that the final rule will not have a significant economic impact on a substantial number of small entities.

For purposes of assessing the impacts of today's final rule on small entities, small entity is defined as: (1) A small business whose parent company has fewer than 100 or 1,500 employees, or a maximum of $5 million to $18.5 million in revenues, depending on the size definition for the affected North American Industry Classification System (NAICS) code; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. It should be noted that companies in 42 NAICS codes are affected by the final rule, and the small business definition applied to each industry by NAICS code is that listed in the Small Business Administration (SBA) size standards (13 CFR 121). For more information on size standards for particular industries, please refer to the economic impact analysis in the docket.

After considering the economic impacts of today's final rule on small entities, EPA has concluded that this action will not have a significant economic impact on a substantial number of small entities. We have determined that six small firms in the industries affected by the final rule may be affected. Out of the six affected small firms, none are estimated to have compliance costs that exceed one percent of their revenues.

In addition, the final rule is likely to increase profits at the many small firms not adversely affected by the final rule due to the very slight increase in market prices. The median compliance cost to sales estimates for the affected small and large firms is virtually identical (0.02 percent compared to less than 0.01 percent for the large firms) and no small firms are expected to close in response to incurring the compliance costs associated with the final rule.

Although the final rule will not have a significant economic impact on a substantial number of small entities, the final rule includes provisions that will minimize the impact on small entities in several ways. We chose to set the control requirements at the MACT floor control level and not at a control level more stringent. The transfer rack cutoff, based on facilitywide throughput, and tank size cutoffs in the final rule will reduce the effects on small businesses. We have identified a list of 98 HAP from the list of 188 in the CAA to be considered for regulation. Regulated liquids are non-crude oil organic liquids that contain at least 5 percent by weight of the 98 HAP listed in Table 1 to subpart EEEE of part 63 and a vapor pressure of at least 0.1 psia, and all crude oil after the first point of custody transfer after the production field. In addition, we worked with various trade associations during the development of the rulemaking. These actions have reduced the economic impact on small entities from the final rule.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures by State, local, and tribal governments, in aggregate, or by the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation of why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that today's final rule does not include a Federal mandate that may result in estimated costs of $100 million or more to State, local, or tribal governments in the aggregate, or to the private sector. Therefore, the requirements of the UMRA do not apply to this action.

E. Executive Order 13132: Federalism

Executive Order 13132, entitled "Federalism" (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

Under Executive Order 13132, EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or EPA consults with State and local officials early in the process of developing the proposed regulation. The EPA also may not issue a regulation that has federalism implications and that preempts State law unless EPA consults with State and local officials early in the process of developing the regulation.

The final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. Furthermore, the final OLD NESHAP do not require these governments to take on any new responsibilities. Therefore, the requirements of section 6 of Executive Order 13132 does not apply to the final rule.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 6, 2000), requires EPA to develop an accountable process to

ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." "Policies that have tribal implications" is defined in the Executive Order to include regulations that have "substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes."

The final rule does not have tribal implications. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175. No affected plant sites are known to be owned or operated by Indian tribal governments. Thus, Executive Order 13175 does not apply to the final rule.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, EPA must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by EPA.

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The final rule is not subject to Executive Order 13045 because it is based on technology performance and not on health or safety risks. No children's risk analysis was performed because no alternative technologies exist that would provide greater stringency at a reasonable cost; therefore, the results of any such analysis would have no impact on the stringency decision.

H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use

The final rule is not subject to Executive Order 13211 (66 FR 28355, May 22, 2001). The rule is not a "significant energy action" because it is not likely to have a significant adverse effect on the supply, distribution, and use of energy. The reduction in petroleum product output, which includes reductions in fuel production, is estimated at only 0.006 percent, or about 311 barrels per day (about 15,500 metric tons per year). The reduction in coal, natural gas, and electricity output is expected to be negligible. The increase in price of petroleum products is estimated to be only 0.001 percent nationwide. While energy distribution services such as pipeline operations will be directly affected by the final rule, energy distribution costs are expected to increase by only 0.1 percent. We estimate that there will be a slight increase of only 0.001 percent of net imports (imports — exports), and no other adverse outcomes are expected to occur with regard to energy supplies. Given the minimal impacts on energy supply, distribution, and use as a whole nationally, all of which are under the threshold screening criteria for compliance with this Executive Order established by the Office of Management and Budget, no significant adverse energy effects are expected to occur.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Public Law No. 104–113; 15 U.S.C. 272 note) directs the EPA to use voluntary consensus standards in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

The final rule involves technical standards. The EPA cites the following standards in the final rule: EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 3B, 4, 18, 21, 25, 25A, 27, 311, 316 (formaldehyde). Consistent with the NTTAA, EPA conducted searches to identify voluntary consensus standards in addition to these EPA methods. No applicable voluntary consensus standards were identified for EPA Methods 1A, 2A, 2D, 2F, 2G, 21, 27, 311, and 316. The search and review results have been documented and are placed in the docket (docket numbers A–98–13 and OAR–2003–0138) for the final rule.

Three voluntary consensus standards were identified as appropriate to the final rule. The voluntary consensus standard ASTM D6420–99, "Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (GC/MS)," is appropriate in the cases described below for inclusion in the final rule in addition to EPA Method 18 codified at 40 CFR part 60, Appendix A, for measurement of organic HAP or total organic compounds. Therefore, the standard ASTM D6420–99 is cited in today's final rule.

Similar to EPA's performance-based Method 18, ASTM D6420–99 is also a performance-based method for measurement of gaseous organic compounds. However, ASTM D6420–99 was written to support the specific use of highly portable and automated GC/MS. While offering advantages over the traditional EPA Method 18, the ASTM method does allow some less stringent criteria for accepting GC/MS results than required by EPA Method 18. Therefore, ASTM D6420–99 is a suitable alternative to EPA Method 18 only where: the target compound(s) are those listed in Section 1.1 of ASTM D6420–99; and the target concentration is between 150 ppbv and 100 ppmv.

For target compound(s) not listed in Section 1.1 of ASTM D6420–99, but potentially detected by mass spectrometry, the regulation specifies that the additional system continuing calibration check after each run, as detailed in Section 10.5.3 of the ASTM method, must be followed, met, documented, and submitted with the data report even if there is no moisture condenser used or the compound is not considered water soluble. For target compound(s) not listed in Section 1.1 of ASTM D6420–99, and not amenable to detection by mass spectrometry, ASTM D6420–99 does not apply.

As a result, EPA included ASTM D6420–99 in the final rule, and EPA Method 18 as a gas chromatography (GC) option in addition to ASTM D6420–99. This will allow the continued use of GC configurations other than GC/MS.

Two additional voluntary consensus standards, ASTM D2879–83 "Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope," and API Publication 2517 "Evaporative Loss from External Floating-Roof Tanks, Third Edition, February 1989," were already incorporated by reference in 40 CFR

§ 63.14 and are also being cited in the final rule for measurement of vapor pressure.

Five voluntary consensus standards: ASTM D1979–91, ASTM D3432–89, ASTM D4747–87, ASTM D4827–93, and ASTM PS9–94 are incorporated by reference in EPA Method 311.

The search for emissions measurement procedures identified nine other voluntary consensus standards. The EPA determined that seven of these nine standards identified for measuring emissions of the HAP or surrogates subject to emission standards in the final rule were impractical alternatives to EPA test methods for the purposes of the final rule. Therefore, EPA does not intend to adopt these standards for this purpose. The reasons for this determination for the seven methods are discussed in the docket.

Two of the nine voluntary consensus standards identified in this search were not available at the time the review was conducted for the purposes of the final rule because they are under development by a voluntary consensus body: ASME/BSR MFC 13M, "Flow Measurement by Velocity Traverse," for EPA Method 2 (and possibly 1); and ASME/BSR MFC 12M, "Flow in Closed Conduits Using Multiport Averaging Pitot Primary Flowmeters," for EPA Method 2.

Section 63.2362 and Table 5 to subpart EEEE of part 63 list the EPA testing methods included in the regulation. Under § 63.7(f) and § 63.8(f) of subpart A of the General Provisions, a source may apply to EPA for permission to use alternative test methods or alternative monitoring requirements in place of any of the EPA testing methods, performance specifications, or procedures.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. § 801 *et seq.*, as added by the SBREFA, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing this final rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the final rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. § 804(2). The final rule will be effective on February 3, 2004.

List of Subjects in 40 CFR Part 63

Environmental protection, Air pollution control, Hazardous substances, Incorporation by reference, Reporting and recordkeeping requirements.

Dated: August 25, 2003.

Marianne Lamont Horinko,

Acting Administrator.

■ For the reasons stated in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is amended as follows:

PART 63—[AMENDED]

Subpart A—[Amended]

■ 1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

■ 2. Section 63.14 is amended by revising paragraphs (b)(8) and (c)(1) to read as follows:

§ 63.14 Incorporation by reference.

* * * * *

(b) * * *

(8) ASTM D2879–83, 96, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for § 63.111 and § 63.2406.

(c) * * *

(1) API Publication 2517, Evaporative Loss from External Floating-Roof Tanks, Third Edition, February 1989, IBR approved for § 63.111 and § 63.2406.

* * * * *

■ 3. Part 63 is amended by adding a new subpart EEEE to read as follows:

Subpart EEEE—National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)

Sec.

What This Subpart Covers

63.2330 What is the purpose of this subpart?
63.2334 Am I subject to this subpart?
63.2338 What parts of my plant does this subpart cover?
63.2342 When do I have to comply with this subpart?

Emission Limitations, Operating Limits, and Work Practice Standards

63.2346 What emission limitations, operating limits, and work practice standards must I meet?

General Compliance Requirements

63.2350 What are my general requirements for complying with this subpart?

Testing and Initial Compliance Requirements

63.2354 What performance tests, design evaluations, and performance evaluations must I conduct?
63.2358 By what date must I conduct performance tests or other initial compliance demonstrations?
63.2362 When must I conduct subsequent performance tests?
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63.2370 How do I demonstrate initial compliance with the emission limitations, operating limits, and work practice standards?

Continuous Compliance Requirements

63.2374 When do I monitor and collect data to demonstrate continuous compliance and how do I use the collected data?
63.2378 How do I demonstrate continuous compliance with the emission limitations, operating limits, and work practice standards?

Notifications, Reports, and Records

63.2382 What notifications must I submit and when and what information should be submitted?
63.2386 What reports must I submit and when and what information is to be submitted in each?
63.2390 What records must I keep?
63.2394 In what form and how long must I keep my records?

Other Requirements and Information

63.2396 What compliance options do I have if part of my plant is subject to both this subpart and another subpart?
63.2398 What parts of the General Provisions apply to me?
63.2402 Who implements and enforces this subpart?
63.2406 What definitions apply to this subpart?

Tables to Subpart EEEE of Part 63

Table 1 to Subpart EEEE of Part 63—Organic Hazardous Air Pollutants
Table 2 to Subpart EEEE of Part 63—Emission Limits
Table 3 to Subpart EEEE of Part 63—Operating Limits—High Throughput Transfer Racks
Table 4 to Subpart EEEE of Part 63—Work Practice Standards
Table 5 to Subpart EEEE of Part 63—Requirements for Performance Tests and Design Evaluations
Table 6 to Subpart EEEE of Part 63—Initial Compliance with Emission Limits
Table 7 to Subpart EEEE of Part 63—Initial Compliance with Work Practice Standards
Table 8 to Subpart EEEE of Part 63—Continuous Compliance with Emission Limits
Table 9 to Subpart EEEE of Part 63—Continuous Compliance with Operating Limits—High Throughput Transfer Racks
Table 10 to Subpart EEEE of Part 63—Continuous Compliance with Work Practice Standards

Table 11 to Subpart EEEE of Part 63—Requirements for Reports
Table 12 to Subpart EEEE of Part 63—Applicability of General Provisions to Subpart EEEE

What This Subpart Covers

§ 63.2330 What is the purpose of this subpart?

This subpart establishes national emission limitations, operating limits, and work practice standards for organic hazardous air pollutants (HAP) emitted from organic liquids distribution (OLD) (non-gasoline) operations at major sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations, operating limits, and work practice standards.

§ 63.2334 Am I subject to this subpart?

(a) Except as provided for in paragraphs (b) and (c) of this section, you are subject to this subpart if you own or operate an OLD operation that is located at, or is part of, a major source of HAP emissions. An OLD operation may occupy an entire plant site or be collocated with other industrial (*e.g.*, manufacturing) operations at the same plant site.

(b) Organic liquid distribution operations located at research and development facilities, consistent with section 112(c)(7) of the Clean Air Act (CAA), are not subject to this subpart.

(c) Organic liquid distribution operations do not include the activities and equipment, including product loading racks, used to process, store, or transfer organic liquids at facilities listed in paragraph (c) (1) and (2) of this section.

(1) Oil and natural gas production field facilities, as the term "facility" is defined in § 63.761 of subpart HH.

(2) Natural gas transmission and storage facilities, as the term "facility" is defined in § 63.1271 of subpart HHH.

§ 63.2338 What parts of my plant does this subpart cover?

(a) This subpart applies to each new, reconstructed, or existing OLD operation affected source.

(b) Except as provided in paragraph (c) of this section, the affected source is the collection of activities and equipment used to distribute organic liquids into, out of, or within a facility that is a major source of HAP. The affected source is composed of:

(1) All storage tanks storing organic liquids.

(2) All transfer racks at which organic liquids are loaded into or unloaded out of transport vehicles and/or containers.

(3) All equipment leak components in organic liquids service that are associated with pipelines, except as provided in paragraph (c)(2) of this section, and with storage tanks and transfer racks storing, loading, or unloading organic liquids.

(4) All transport vehicles while they are loading or unloading organic liquids at transfer racks.

(c) The equipment listed in paragraphs (c)(1) through (4) of this section and used in the identified operations is excluded from the affected source.

(1) Storage tanks, transfer racks, and equipment leak components that are part of an affected source under another 40 CFR part 63 national emission standards for hazardous air pollutants regulation (NESHAP).

(2) Equipment leak components associated with pipelines that transfer organic liquids directly to or from storage tanks subject to another 40 CFR part 63 NESHAP or to or from non-tank process unit components (*e.g.*, process reactors).

(3) Non-permanent storage tanks, transfer racks, and equipment leak components used in special situation distribution loading and unloading operations (such as maintenance or upset liquids management).

(4) Storage tanks, transfer racks, and equipment leak components used to conduct maintenance activities, such as stormwater management, liquid removal from tanks for inspections and maintenance, or changeovers to a different liquid stored in a storage tank.

(d) An affected source is a new affected source if you commenced construction of the affected source after April 2, 2002, and you meet the applicability criteria in § 63.2334 at the time you commenced operation.

(e) An affected source is reconstructed if you meet the criteria for reconstruction as defined in § 63.2.

(f) An affected source is existing if it is not new or reconstructed.

§ 63.2342 When do I have to comply with this subpart?

(a) If you have a new or reconstructed affected source, you must comply with this subpart according to the schedule identified in paragraph (a)(1) or (2) of this section, as applicable.

(1)(i) Except as provided in paragraph (a)(1)(ii) of this section, if you startup your new affected source on or before February 3, 2004 or if you reconstruct your affected source on or before February 3, 2004, you must comply with the emission limitations, operating limits, and work practice standards for new and reconstructed sources in this subpart no later than February 3, 2004.

(ii) For any emission source listed in paragraph § 63.2338(b) at an affected source that commenced construction or reconstruction after April 2, 2002, but before February 3, 2004, that is required to be controlled based on the applicability criteria in this subpart, but:

(A) Would not have been required to be controlled based on the applicability criteria as proposed for this subpart, you must comply with the emission limitations, operating limits, and work practice standards for each such emission source based on the schedule found in paragraph (b) of this section or at startup, whichever is later; or

(B) Would have been subject to a less stringent degree of control requirement as proposed for this subpart, you must comply with the emission limitations, operating limits, and work practice standards in this subpart for each such emission source based on the schedule found in paragraph (b) of this section or at startup, whichever is later, and if you start up your affected new or reconstructed source before February 5, 2007, you must comply with the emission limitations, operating limits, and work practice standards for each such emission source as proposed for this subpart, until you are required to comply with the emission limitations, operating limits, and work practice standards in this subpart for each such emission source based on the schedule found in paragraph (b) of this section.

(2) If you commence construction of or reconstruct your affected source after February 3, 2004, you must comply with the emission limitations, operating limits, and work practice standards for new and reconstructed sources in this subpart upon startup of your affected source.

(b)(1) If you have an existing affected source, you must comply with the emission limitations, operating limits, and work practice standards for existing affected sources no later than February 5, 2007, except as provided in paragraph (b)(2) of this section.

(2) Floating roof storage tanks at existing affected sources must be in compliance with the work practice standards in Table 4 to this subpart, item 1, at all times after the next degassing and cleaning activity or within 10 years after February 3, 2004, whichever occurs first. If the first degassing and cleaning activity occurs during the 3 years following February 3, 2004, the compliance date is February 5, 2007.

(c) If you have an area source that does not commence reconstruction but increases its emissions or its potential to

emit such that it becomes a major source of HAP emissions and an existing affected source subject to this subpart, you must be in compliance by 3 years after the area source becomes a major source.

(d) You must meet the notification requirements in § 63.2382(a) according to the schedules in § 63.2382(a) and (b)(1) through (3) and in subpart A of this part. Some of these notifications must be submitted before the compliance dates for the emission limitations, operating limits, and work practice standards in this subpart.

Emission Limitations, Operating Limits, and Work Practice Standards

§ 63.2346 What emission limitations, operating limits, and work practice standards must I meet?

(a) *Storage tanks.* For each storage tank storing organic liquids that meets the tank capacity and liquid vapor pressure criteria for control in Table 2 to this subpart, items 1 through 5, you must comply with paragraph (a)(1), (2), or (3) of this section. For each storage tank storing organic liquids that meets the tank capacity and liquid vapor pressure criteria for control in Table 2 to this subpart, item 6, you must comply with paragraph (a)(1) of this section.

(1) Meet the emission limits specified in Table 2 to this subpart and comply with the applicable requirements specified in 40 CFR part 63, subpart SS, for meeting emission limits, except substitute the term "storage tank" at each occurrence of the term "storage vessel" in subpart SS.

(2) Route emissions to fuel gas systems or back into the process as specified in 40 CFR part 63, subpart SS.

(3) Comply with 40 CFR part 63, subpart WW (control level 2).

(b) *Transfer racks.* For each transfer rack that meets the facility-level organic liquid loading volume and transfer rack organic HAP content criteria for control in Table 2 to this subpart, items 7 through 9, you must comply with paragraph (b)(1), (2), or (3) of this section.

(1) Meet the emission limits specified in Table 2 to this subpart and comply with the applicable requirements for transfer racks specified in 40 CFR part 63, subpart SS, for meeting emission limits.

(2) Route emissions to fuel gas systems or back into the process as specified in 40 CFR part 63, subpart SS.

(3) Use a vapor balancing system that routes organic HAP vapors displaced from the loading of organic liquids into transport vehicles to the appropriate storage tank.

(c) *Equipment leak components.* For each pump, valve, and sampling connection that operates in organic liquids service for at least 300 hours per year, you must comply with the applicable requirements under 40 CFR part 63, subpart TT (control level 1), subpart UU (control level 2), or subpart H. Pumps, valves, and sampling connectors that are insulated to provide protection against persistent sub-freezing temperatures are subject to the "difficult to monitor" provisions in the applicable subpart selected by the owner or operator. This paragraph only applies if the affected source has at least one storage tank or transfer rack that meets the applicability criteria for control in Table 2 to this subpart.

(d) *Transport vehicles.* For each transport vehicle equipped with vapor collection equipment, you must comply with paragraph (d)(1) of this section. For each transport vehicle without vapor collection equipment, you must comply with paragraph (d)(2) of this section.

(1) Follow the steps in 40 CFR 60.502(e) to ensure that organic liquids are loaded only into vapor-tight transport vehicles and comply with the provisions in 40 CFR 60.502(f) through (i), except substitute the term "transport vehicle" at each occurrence of the term "tank truck" or "gasoline tank truck" in those paragraphs.

(2) Ensure that organic liquids are loaded only into transport vehicles that have a current certification in accordance with the U.S. Department of Transportation (DOT) pressure test requirements in 49 CFR part 180 for cargo tanks or 49 CFR 173.31 for tank cars.

(e) *Operating limits.* For each high throughput transfer rack, you must meet each operating limit in Table 3 to this subpart for each control device used to comply with the provisions of this subpart whenever emissions from organic liquids are routed to the control device. For each storage tank and low throughput transfer rack, you must comply with the requirements for monitored parameters as specified in subpart SS of this part for storage vessels and low throughput transfer racks, respectively. Alternatively, you may comply with the operating limits in Table 3 to this subpart.

(f) If you elect to demonstrate compliance with a percent reduction requirement in Table 2 to this subpart using total organic compounds (TOC) rather than organic HAP, you must first demonstrate, subject to approval of the Administrator, that TOC is an appropriate surrogate for organic HAP in your case; that is, for your storage tank(s) and/or transfer rack(s), the percent destruction of organic HAP is equal to or higher than the percent destruction of TOC. This demonstration must be conducted prior to or during the initial compliance test.

(g) As provided in § 63.6(g), you may request approval from the Administrator to use an alternative to the emission limitations, operating limits, and work practice standards in this section. You must follow the procedures in § 63.177(b) through (e) in applying for permission to use such an alternative. If you apply for permission to use an alternative to the emission limitations, operating limits, and work practice standards in this section, you must submit the information described in § 63.6(g)(2).

(h) Emission sources that are part of the affected source as specified in § 63.2338, but which are not subject to the provisions of paragraphs (a) through (d) of this section, are only subject to the requirements specified in § 63.2386(d).

(i) Opening of a safety device is allowed at any time that it is required to avoid unsafe operating conditions.

(j) If you elect to comply with this subpart by combining emissions from different emission sources subject to this subpart in a single control device, then you must comply with the provisions specified in § 63.982(f).

General Compliance Requirements

§ 63.2350 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations, operating limits, and work practice standards in this subpart at all times when the equipment identified in § 63.2338(b)(1) through (4) is in OLD operation.

(b) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in § 63.6(e)(1)(i).

(c) You must develop and implement a written startup, shutdown, and malfunction (SSM) plan according to the provisions in § 63.6(e)(3).

Testing and Initial Compliance Requirements

§ 63.2354 What performance tests, design evaluations, and performance evaluations must I conduct?

(a)(1) For each performance test that you conduct, you must use the procedures specified in subpart SS of this part and the provisions specified in paragraph (b) of this section.

(2) For each design evaluation you conduct, you must use the procedures specified in subpart SS of this part.

(3) For each performance evaluation of each continuous monitoring system (CMS) you conduct, you must follow the requirements in § 63.8(e).

(b)(1) For nonflare control devices, you must conduct each performance test according to the requirements in § 63.7(e)(1), and either § 63.988(b), § 63.990(b), or § 63.995(b), using the procedures specified in § 63.997(e).

(2) You must conduct three separate test runs for each performance test on a nonflare control device as specified in §§ 63.7(c)(3) and 63.997(e)(1)(v). Each test run must last at least 1 hour, except as provided in § 63.997(e)(1)(v)(A) and (B).

(3)(i) In addition to EPA Method 25 or 25A of 40 CFR part 60, appendix A, to determine compliance with the organic HAP or TOC emission limit, you may use EPA Method 18 of 40 CFR part 60, appendix A. If you use EPA Method 18 to measure compliance with the percentage efficiency limit, you must first determine which organic HAP are present in the inlet gas stream (*i.e.*, uncontrolled emissions) using knowledge of the organic liquids or the screening procedure described in EPA Method 18. In conducting the performance test, you must analyze samples collected as specified in EPA Method 18, simultaneously at the inlet and outlet of the control device. Quantify the emissions for the same organic HAP identified as present in the inlet gas stream for both the inlet and outlet gas streams of the control device.

(ii) If you use EPA Method 18 of 40 CFR part 60, appendix A, to measure compliance with the emission concentration limit, you must first determine which organic HAP are present in the inlet gas stream using knowledge of the organic liquids or the screening procedure described in EPA Method 18. In conducting the performance test, analyze samples collected as specified in EPA Method 18 at the outlet of the control device. Quantify the control device outlet emission concentration for the same organic HAP identified as present in the inlet or uncontrolled gas stream.

(4) If a principal component of the uncontrolled or inlet gas stream to the control device is formaldehyde, you may use EPA Method 316 of appendix A of this part instead of EPA Method 18 of 40 CFR part 60, appendix A, for measuring the formaldehyde. If formaldehyde is the predominant organic HAP in the inlet gas stream, you may use EPA Method 316 alone to measure formaldehyde either at the inlet and outlet of the control device using the formaldehyde control efficiency as a surrogate for total organic HAP or TOC efficiency, or at the outlet of a combustion device for determining compliance with the emission concentration limit.

(5) You may not conduct performance tests during periods of SSM, as specified in § 63.7(e)(1).

(c) To determine the HAP content of the organic liquid, you may use EPA Method 311 of 40 CFR part 63, appendix A, or other method approved by the Administrator. In addition, you may use other means, such as voluntary consensus standards, material safety data sheets (MSDS), or certified product data sheets, to determine the HAP content of the organic liquid. If the method you select to determine the HAP content provides HAP content ranges, you must use the upper end of each HAP content range in determining the total HAP content of the organic liquid. The EPA may require you to test the HAP content of an organic liquid using EPA Method 311 or other method approved by the Administrator. If the results of the EPA Method 311 (or any other approved method) are different from the HAP content determined by another means, the EPA Method 311 (or approved method) results will govern.

§ 63.2358 By what date must I conduct performance tests and other initial compliance demonstrations?

(a) You must conduct initial performance tests and design evaluations according to the schedule in § 63.7(a)(2), or by the compliance date specified in any applicable State or Federal new source review construction permit to which the affected source is already subject, whichever is earlier.

(b)(1) For storage tanks and transfer racks at existing affected sources complying with the emission limitations listed in Table 2 to this subpart, you must demonstrate initial compliance with the emission limitations within 180 days after February 5, 2007.

(2) For storage tanks and transfer racks at reconstructed or new affected sources complying with the emission limitations listed in Table 2 to this subpart, you must conduct your initial compliance demonstration with the emission limitations within 180 days after the initial startup date for the affected source or February 3, 2004, whichever is later.

(c)(1) For storage tanks at existing affected sources complying with the work practice standard in Table 4 to this subpart, you must conduct your initial compliance demonstration the next time the storage tank is emptied and degassed, but not later than 10 years after February 3, 2004.

(2) For transfer racks and equipment leak components at existing affected sources complying with the work practice standards in Table 4 to this subpart, you must conduct your initial compliance demonstration within 180 days after February 5, 2007.

(d) For storage tanks, transfer racks, and equipment leak components at reconstructed or new affected sources complying with the work practice standards in Table 4 to this subpart, you must conduct your initial compliance demonstration within 180 days after the initial startup date for the affected source.

§ 63.2362 When must I conduct subsequent performance tests?

(a) For nonflare control devices, you must conduct subsequent performance testing required in Table 5 to this subpart, item 1, at any time the EPA requests you to in accordance with section 114 of the CAA.

(b)(1) For each transport vehicle that you own that is equipped with vapor collection equipment and loads organic liquids at an affected transfer rack, you must perform the vapor tightness testing required in Table 5 to this subpart, item 2, on that transport vehicle at least once per year.

(2) For transport vehicles that you own that do not have vapor collection equipment, you must maintain current certification in accordance with the U.S. DOT pressure test requirements in 49 CFR part 180 for cargo tanks or 49 CFR 173.31 for tank cars.

§ 63.2366 What are my monitoring installation, operation, and maintenance requirements?

(a) You must install, operate, and maintain a CMS on each control device required in order to comply with this subpart. If you use a continuous parameter monitoring system (CPMS) (as defined in § 63.981), you must comply with the applicable requirements for CPMS in subpart SS of this part for the control device being used. If you use a continuous emissions monitoring system (CEMS), you must comply with the requirements in § 63.8.

(b) For nonflare control devices controlling storage tanks and low throughput transfer racks, you must submit a monitoring plan according to the requirements in subpart SS of this part for monitoring plans.

§ 63.2370 How do I demonstrate initial compliance with the emission limitations, operating limits, and work practice standards?

(a) You must demonstrate initial compliance with each emission limitation and work practice standard

that applies to you as specified in Tables 6 and 7 to this subpart.

(b) You demonstrate initial compliance with the operating limits requirements specified in § 63.2346(e) by establishing the operating limits during the initial performance test or design evaluation.

(c) You must submit the results of the initial compliance demonstration in the Notification of Compliance Status according to the requirements in § 63.2382(b).

Continuous Compliance Requirements

§ 63.2374 When do I monitor and collect data to demonstrate continuous compliance and how do I use the collected data?

(a) You must monitor and collect data according to subpart SS of this part and paragraphs (b) and (c) of this section.

(b) When using a control device to comply with this subpart, you must monitor continuously or collect data at all required intervals at all times that the emission source and control device are in OLD operation, except for CMS malfunctions (including any malfunction preventing the CMS from operating properly), associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments).

(c) Do not use data recorded during CMS malfunctions, associated repairs, required quality assurance or control activities, or periods when emissions from organic liquids are not routed to the control device in data averages and calculations used to report emission or operating levels. Do not use such data in fulfilling a minimum data availability requirement, if applicable. You must use all of the data collected during all other periods, including periods of SSM, in assessing the operation of the control device.

§ 63.2378 How do I demonstrate continuous compliance with the emission limitations, operating limits, and work practice standards?

(a) You must demonstrate continuous compliance with each emission limitation, operating limit, and work practice standard in Tables 2 through 4 to this subpart that applies to you according to the methods specified in subpart SS of this part and in Tables 8 through 10 to this subpart, as applicable.

(b) You must follow the requirements in § 63.6(e)(1) and (3) during periods of startup, shutdown, malfunction, or nonoperation of the affected source or any part thereof. In addition, the provisions of paragraphs (b)(1) through (3) of this section apply.

(1) The emission limitations in this subpart apply at all times except during periods of nonoperation of the affected source (or specific portion thereof) resulting in cessation of the emissions to which this subpart applies. The emission limitations of this subpart apply during periods of SSM, except as provided in paragraphs (b)(2) and (3) of this section. During periods of SSM, the owner or operator must follow the applicable provisions of the SSM plan required by § 63.2350(c). However, if a SSM, or period of nonoperation of one portion of the affected source does not affect the ability of a particular emission source to comply with the emission limitations to which it is subject, then that emission source is still required to comply with the applicable emission limitations of this subpart during the startup, shutdown, malfunction, or period of nonoperation.

(2) The owner or operator must not shut down control devices or monitoring systems that are required or utilized for achieving compliance with this subpart during periods of SSM while emissions are being routed to such items of equipment if the shutdown would contravene requirements of this subpart applicable to such items of equipment. This paragraph (b)(2) does not apply if the item of equipment is malfunctioning. This paragraph (b)(2) also does not apply if the owner or operator shuts down the compliance equipment (other than monitoring systems) to avoid damage due to a contemporaneous SSM of the affected source or portion thereof. If the owner or operator has reason to believe that monitoring equipment would be damaged due to a contemporaneous SSM of the affected source of portion thereof, the owner or operator must provide documentation supporting such a claim in the next Compliance report required in Table 11 to this subpart, item 1. Once approved by the Administrator, the provision for ceasing to collect, during a SSM, monitoring data that would otherwise be required by the provisions of this subpart must be incorporated into the SSM plan.

(3) During SSM, you must implement, to the extent reasonably available, measures to prevent or minimize excess emissions. For purposes of this paragraph (b)(3), the term "excess emissions" means emissions greater than those allowed by the emission limits that apply during normal operational periods. The measures to be taken must be identified in the SSM plan, and may include, but are not limited to, air pollution control technologies, recovery technologies, work practices, pollution prevention, monitoring, and/or changes in the manner of operation of the affected source. Back-up control devices are not required, but may be used if available.

(c) Periods of planned routine maintenance of a control device used to control storage tanks or transfer racks, during which the control device does not meet the emission limits in Table 2 to this subpart, must not exceed 240 hours per year.

(d) If you elect to route emissions from storage tanks or transfer racks to a fuel gas system or to a process, as allowed by § 63.982(d), to comply with the emission limits in Table 2 to this subpart, the total aggregate amount of time during which the emissions bypass the fuel gas system or process during the calendar year without being routed to a control device, for all reasons (except SSM or product changeovers of flexible operation units and periods when a storage tank has been emptied and degassed), must not exceed 240 hours.

Notifications, Reports, and Records

§ 63.2382 What notifications must I submit and when and what information should be submitted?

(a) You must submit each notification in subpart SS of this part, Table 12 to this subpart, and paragraphs (b) through (d) of this section that applies to you. You must submit these notifications according to the schedule in Table 12 to this subpart and as specified in paragraphs (b) through (d) of this section.

(b)(1) *Initial Notification.* If you startup your affected source before February 3, 2004, you must submit the Initial Notification no later than 120 calendar days after February 3, 2004.

(2) If you startup your new or reconstructed affected source on or after February 3, 2004, you must submit the Initial Notification no later than 120 days after initial startup.

(c) If you are required to conduct a performance test, you must submit the Notification of Intent to conduct the test at least 60 calendar days before it is initially scheduled to begin as required in § 63.7(b)(1).

(d)(1) *Notification of Compliance Status.* If you are required to conduct a performance test, design evaluation, or other initial compliance demonstration as specified in Table 5, 6, or 7 to this subpart, you must submit a Notification of Compliance Status.

(2) The Notification of Compliance Status must include the information required in § 63.999(b) and in paragraphs (d)(2)(i) through (viii) of this section.

(i) The results of any applicability determinations, emission calculations, or analyses used to identify and quantify organic HAP emissions from the affected source.

(ii) The results of emissions profiles, performance tests, engineering analyses, design evaluations, flare compliance assessments, inspections and repairs, and calculations used to demonstrate initial compliance according to Tables 6 and 7 to this subpart. For performance tests, results must include descriptions of sampling and analysis procedures and quality assurance procedures.

(iii) Descriptions of monitoring devices, monitoring frequencies, and the operating limits established during the initial compliance demonstrations, including data and calculations to support the levels you establish.

(iv) Listing of all operating scenarios.

(v) Descriptions of worst-case operating and/or testing conditions for the control device(s).

(vi) Identification of emission sources subject to overlapping requirements described in § 63.2396 and the authority under which you will comply.

(vii) The applicable information specified in § 63.1039(a)(1) through (3) for all pumps and valves subject to the work practice standards for equipment leak components in Table 4 to this subpart, item 3.

(viii) If you are complying with the vapor balancing work practice standard for transfer racks according to Table 4 to this subpart, item 2.a, include a statement to that effect, and a statement that the pressure vent settings on the affected storage tanks are greater than or equal to 2.5 pounds per square inch gauge (psig).

§ 63.2386 What reports must I submit and when and what information is to be submitted in each?

(a) You must submit each report in subpart SS of this part, Table 11 to this subpart, Table 12 to this subpart, and in paragraphs (c) through (e) of this section that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report according to Table 11 to this subpart and by the dates shown in paragraphs (b)(1) through (3) of this section, by the dates shown in subpart SS of this part, and by the dates shown in Table 12 to this subpart, whichever are applicable.

(1)(i) The first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.2342 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your affected source in § 63.2342.

(ii) The first Compliance report must be postmarked no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in § 63.2342.

(2)(i) Each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(ii) Each subsequent Compliance report must be postmarked no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(3) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) *First Compliance report.* The first Compliance report must contain the information specified in paragraphs (c)(1) through (10) of this section.

(1) Company name and address.

(2) Statement by a responsible official, including the official's name, title, and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

(3) Date of report and beginning and ending dates of the reporting period.

(4) Any changes to the information listed in § 63.2382(d)(1) that have occurred since the submittal of the Notification of Compliance Status.

(5) If you had a SSM during the reporting period and you took actions consistent with your SSM plan, the Compliance report must include the information described in § 63.10(d)(5)(i).

(6) If there are no deviations from any emission limitation or operating limit that applies to you and there are no deviations from the requirements for work practice standards, a statement that there were no deviations from the emission limitations, operating limits, or work practice standards during the reporting period.

(7) If there were no periods during which the CMS was out of control as specified in § 63.8(c)(7), a statement that there were no periods during which the CMS was out of control during the reporting period.

(8) For closed vent systems and control devices used to control emissions, the information specified in paragraphs (c)(8)(i) and (ii) of this section for those planned routine maintenance activities that would require the control device to not meet the applicable emission limit.

(i) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6 months. This description must include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

(ii) A description of the planned routine maintenance that was performed for the control device during the previous 6 months. This description must include the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the applicable emission limit due to planned routine maintenance.

(9) A listing of all emission sources that are part of the affected source but are not subject to any of the emission limitations, operating limits, or work practice standards of this subpart.

(10) A listing of all transport vehicles into which organic liquids were loaded at affected transfer racks during the previous 6 months for which vapor tightness documentation as required in § 63.2390(d) was not on file at the facility.

(d) *Subsequent Compliance reports.* Subsequent Compliance reports must contain the information in paragraphs (c)(1) through (10) of this section and, where applicable, the information in paragraphs (d)(1) through (3) of this section.

(1) For each deviation from an emission limitation occurring at an affected source where you are using a CMS to comply with an emission limitation in this subpart, you must include in the Compliance report the applicable information in paragraphs (d)(1)(i) through (xii) of this section. This includes periods of SSM.

(i) The date and time that each malfunction started and stopped.

(ii) The dates and times that each CMS was inoperative, except for zero (low-level) and high-level checks.

(iii) For each CMS that was out of control, the information in § 63.8(c)(8).

(iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of SSM, or during another period.

(v) A summary of the total duration of the deviations during the reporting period, and the total duration as a percentage of the total emission source operating time during that reporting period.

(vi) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(vii) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percentage of the total emission source operating time during that reporting period.

(viii) An identification of each organic HAP that was potentially emitted during each deviation based on the known organic HAP contained in the liquid(s).

(ix) A brief description of the emission source(s) at which the CMS deviation(s) occurred.

(x) A brief description of each CMS that was out of control during the period.

(xi) The date of the latest certification or audit for each CMS.

(xii) A brief description of any changes in CMS, processes, or controls since the last reporting period.

(2) Include in the Compliance report the information in paragraphs (d)(2)(i) through (iii) of this section, as applicable.

(i) For each storage tank and transfer rack subject to control requirements, include periods of planned routine maintenance during which the control device did not comply with the applicable emission limits in Table 2 to this subpart.

(ii) For each storage tank controlled with a floating roof, include a copy of the inspection record (required in § 63.1065(b)) when inspection failures occur.

(iii) If you elect to use an extension for a floating roof inspection in accordance with § 63.1063(c)(2)(iv)(B) or (e)(2), include the documentation required by those paragraphs.

(3) Include in the Compliance report each new operating scenario which has occurred since the time period covered by the last Compliance report. For each new operating scenario, you must provide verification that the established operating conditions for any associated control device have not been exceeded and that any required calculations and engineering analyses have been performed.

(e) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 11 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission limitation in this subpart, we will consider submission of the Compliance report as satisfying any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report will not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the applicable title V permitting authority.

§ 63.2390 What records must I keep?

(a) You must keep all records identified in subpart SS of this part and in Table 12 to this subpart that are applicable, including records related to notifications and reports, SSM, performance tests, CMS, and performance evaluation plans.

(b) You must keep the records required to show continuous compliance, as required in subpart SS of this part and in Tables 8 through 10 to this subpart, with each emission limitation, operating limit, and work practice standard that applies to you.

(c) For each transport vehicle into which organic liquids are loaded at an affected transfer rack, you must keep the applicable records in paragraphs (c)(1) and (2) of this section.

(1) For transport vehicles equipped with vapor collection equipment, the documentation described in 40 CFR 60.505(b), except that the test title is: Transport Vehicle Pressure Test-EPA Reference Method 27.

(2) For transport vehicles without vapor collection equipment, current certification in accordance with the U.S. DOT pressure test requirements in 49 CFR part 180 for cargo tanks or 49 CFR 173.31 for tank cars.

(3) You must keep records of the actual annual facility-level organic liquid loading volume through transfer racks out of the facility to document the applicability of the emission limitations in Table 2, items 7 through 10, to this subpart.

§ 63.2394 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious inspection and review according to § 63.10(b)(1). In addition, on-site records may be stored in electronic form at a separate location from the site provided they can be accessed and printed at the site within 1 hour after a request by the applicable title V permitting authority.

(b) As specified in § 63.10(b)(1), you must keep your files of all information (including all reports and notifications) for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You may keep the records off site for the remaining 3 years.

Other Requirements and Information

§ 63.2396 What compliance options do I have if part of my plant is subject to both this subpart and another subpart?

(a) *Compliance with other regulations for storage tanks.*

(1)(i) After the compliance dates specified in § 63.2342, if you have a storage tank that is subject to 40 CFR part 60, subpart Kb, not as the result of another 40 CFR part 63 subpart, and that storage tank is in OLD operation, you must meet all of the requirements of this subpart for that storage tank when the storage tank is in OLD operation.

(ii) If you have a storage tank that is in compliance with 40 CFR part 60, subpart Kb, as the result of complying with another 40 CFR part 63 subpart, that storage tank is not subject to this subpart.

(2) After the compliance dates specified in § 63.2342, if you have a storage tank that is subject to 40 CFR part 61, subpart Y, and that storage tank is in OLD operation, you must meet all of the requirements of this subpart for that storage tank when the storage tank is in OLD operation.

(b) *Compliance with other regulations for transfer racks.* After the compliance dates specified in § 63.2342, if you have a transfer rack that is subject to 40 CFR part 61, subpart BB, and that transfer rack is in OLD operation, you must meet the all of the requirements of this subpart for that transfer rack when the transfer rack is in OLD operation.

(c) *Compliance with other regulations for equipment leak components.*

(1) After the compliance dates specified in § 63.2342, if you have pumps, valves, or sampling connections that are subject to a 40 CFR part 60 subpart, and those pumps, valves, and sampling connections are in OLD operation and in organic liquids service,

as defined in this subpart, you must comply with the provisions of each subpart for those equipment leak components.

(2) After the compliance dates specified in § 63.2342, if you have pumps, valves, or sampling connections subject to 40 CFR part 63, subpart GGG, and those pumps, valves, and sampling connections are in OLD operation and in organic liquids service, as defined in this subpart, you may elect to comply with the provisions of this subpart for all such equipment leak components. You must identify in the Notification of Compliance Status required by § 63.2382(b) the provisions with which you will comply.

(d) [*Reserved*]

(e) *Overlap with other regulations for monitoring, recordkeeping, or reporting with respect to control devices.* After the compliance dates specified in § 63.2342, if any control device subject to this subpart is also subject to monitoring, recordkeeping, and reporting requirements of another 40 CFR part 63 subpart, the owner or operator must be in compliance with the monitoring, recordkeeping, and reporting requirements of this subpart EEEE. If complying with the monitoring, recordkeeping, and reporting requirements of the other subpart satisfies the monitoring, recordkeeping, and reporting requirements of this subpart, the owner or operator may elect to continue to comply with the monitoring, recordkeeping, and reporting requirements of the other subpart. In such instances, the owner or operator will be deemed to be in compliance with the monitoring, recordkeeping, and reporting requirements of this subpart. The owner or operator must identify the other subpart being complied with in the Notification of Compliance Status required by § 63.2382(b).

§ 63.2398 What parts of the General Provisions apply to me?

Table 12 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

§ 63.2402 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. Environmental Protection Agency (U.S. EPA) or a delegated authority such as your State, local, or eligible tribal agency. If the EPA Administrator has delegated authority to your State, local, or eligible tribal agency, then that agency, as well as the EPA, has the authority to implement and enforce this subpart. You should contact your EPA Regional Office (see list in § 63.13) to find out if this subpart is delegated to your State, local, or eligible tribal agency.

(b) In delegating implementation and enforcement authority for this subpart to a State, local, or eligible tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraphs (b)(1) through (4) of this section are retained by the EPA Administrator and are not delegated to the State, local, or eligible tribal agency.

(1) Approval of alternatives to the nonopacity emission limitations, operating limits, and work practice standards in § 63.2346(a) through (c) under § 63.6(g).

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.2406 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in § 63.2, and in this section. If the same term is defined in another subpart and in this section, it will have the meaning given in this section for purposes of this subpart.

Actual annual average temperature, for organic liquids, means the temperature determined using the following methods:

(1) For heated or cooled storage tanks, use the calculated annual average temperature of the stored organic liquid as determined from a design analysis of the storage tank.

(2) For ambient temperature storage tanks:

(i) Use the annual average of the local (nearest) normal daily mean temperatures reported by the National Climatic Data Center; or

(ii) Use any other method that the EPA approves.

Annual average true vapor pressure means the equilibrium partial pressure exerted by the total organic HAP in the stored or transferred organic liquid. For the purpose of determining if a liquid meets the definition of an organic liquid, the vapor pressure is determined using standard conditions of 77 degrees F and 29.92 inches of mercury. For the purpose of determining whether an organic liquid meets the applicability criteria in Table 2, items 1 through 6, to this subpart, use the actual annual average temperature as defined in this subpart. The vapor pressure value in either of these cases is determined:

(1) In accordance with methods described in American Petroleum Institute Publication 2517, Evaporative Loss from External Floating-Roof Tanks (incorporated by reference, see § 63.14);

(2) Using standard reference texts;

(3) By the American Society for Testing and Materials Method D2879–83, 96 (incorporated by reference, see § 63.14); or

(4) Using any other method that the EPA approves.

Cargo tank means a liquid-carrying tank permanently attached and forming an integral part of a motor vehicle or truck trailer. This term also refers to the entire cargo tank motor vehicle or trailer. For the purpose of this subpart, vacuum trucks used exclusively for maintenance or spill response are not considered cargo tanks.

Closed vent system means a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and, if necessary, flow-inducing devices that transport gas or vapors from an emission point to a control device. This system does not include the vapor collection system that is part of some transport vehicles or the loading arm or hose that is used for vapor return. For transfer racks, the closed vent system begins at, and includes, the first block valve on the downstream side of the loading arm or hose used to convey displaced vapors.

Combustion device means an individual unit of equipment, such as a flare, oxidizer, catalytic oxidizer, process heater, or boiler, used for the combustion of organic emissions.

Container means a portable unit in which a material can be stored, transported, treated, disposed of, or otherwise handled. Examples of containers include, but are not limited to, drums and portable cargo containers known as "portable tanks" or "totes."

Control device means any combustion device, recovery device, recapture device, or any combination of these devices used to comply with this subpart. Such equipment or devices include, but are not limited to, absorbers, adsorbers, condensers, and combustion devices. Primary condensers, steam strippers, and fuel gas systems are not considered control devices.

Crude oil means any of the naturally occurring liquids commonly referred to as crude oil, regardless of specific physical properties. Only those crude oils downstream of the first point of custody transfer after the production field are considered crude oils in this subpart.

Custody transfer means the transfer of hydrocarbon liquids after processing and/or treatment in the producing operations, or from storage tanks or

automatic transfer facilities to pipelines or any other forms of transportation.

Design evaluation means a procedure for evaluating control devices that complies with the requirements in § 63.985(b)(1)(i).

Deviation means any instance in which an affected source subject to this subpart, or portion thereof, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limitation (including any operating limit) or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart, and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation (including any operating limit) or work practice standard in this subpart during SSM.

Emission limitation means an emission limit, opacity limit, operating limit, or visible emission limit.

Equipment leak component means each pump, valve, and sampling connection system used in organic liquids service at an OLD operation. Valve types include control, globe, gate, plug, and ball. Relief and check valves are excluded.

Gasoline means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals (4.0 pounds per square inch absolute (psia)) or greater which is used as a fuel for internal combustion engines. Aviation gasoline is included in this definition.

In organic liquids service means that an equipment leak component contains or contacts organic liquids having 5 percent by weight or greater of the organic HAP listed in Table 1 to this subpart.

On-site or *on site* means, with respect to records required to be maintained by this subpart or required by another subpart referenced by this subpart, that records are stored at a location within a major source which encompasses the affected source. On-site includes, but is not limited to, storage at the affected source to which the records pertain, storage in central files elsewhere at the major source, or electronically available at the site.

Organic liquid means:

(1) Any non-crude oil liquid or liquid mixture that contains 5 percent by weight or greater of the organic HAP listed in Table 1 to this subpart, as determined using the procedures specified in § 63.2354(c).

(2) Any crude oils downstream of the first point of custody transfer.

(3) Organic liquids for purposes of this subpart do not include the following liquids:

(i) Gasoline (including aviation gasoline), kerosene (No. 1 distillate oil), diesel (No. 2 distillate oil), asphalt, and heavier distillate oils and fuel oils;

(ii) Any fuel consumed or dispensed on the plant site directly to users (such as fuels for fleet refueling or for refueling marine vessels that support the operation of the plant);

(iii) Hazardous waste;

(iv) Wastewater;

(v) Ballast water: or

(vi) Any non-crude oil liquid with an annual average true vapor pressure less than 0.7 kilopascals (0.1 psia).

Organic liquids distribution (OLD) operation means the combination of activities and equipment used to store or transfer organic liquids into, out of, or within a plant site regardless of the specific activity being performed. Activities include, but are not limited to, storage, transfer, blending, compounding, and packaging.

Permitting authority means one of the following:

(1) The State Air Pollution Control Agency, local agency, or other agency authorized by the EPA Administrator to carry out a permit program under 40 CFR part 70; or

(2) The EPA Administrator, in the case of EPA-implemented permit programs under title V of the CAA (42 U.S.C. 7661) and 40 CFR part 71.

Plant site means all contiguous or adjoining surface property that is under common control, including surface properties that are separated only by a road or other public right-of-way. Common control includes surface properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, or any combination.

Research and development facility means laboratory and pilot plant operations whose primary purpose is to conduct research and development into new processes and products, where the operations are under the close supervision of technically trained personnel, and which are not engaged in the manufacture of products for commercial sale, except in a *de minimis* manner.

Responsible official means responsible official as defined in 40 CFR 70.2 and 40 CFR 71.2, as applicable.

Safety device means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device that functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event.

Shutdown means the cessation of operation of an OLD affected source, or portion thereof, required or used to comply with this subpart, or the emptying and degassing of a storage tank. Shutdown as defined here includes, but is not limited to, events that result from periodic maintenance, replacement of equipment, or repair.

Startup means the setting in operation of an OLD affected source, or portion thereof, for any purpose. Startup also includes the placing in operation of any individual piece of equipment required or used to comply with this subpart including, but not limited to, control devices and monitors.

Storage tank means a stationary unit that is constructed primarily of nonearthen materials (such as wood, concrete, steel, or reinforced plastic) that provide structural support and is designed to hold a bulk quantity of liquid. Storage tanks do not include:

(1) Units permanently attached to conveyances such as trucks, trailers, rail cars, barges, or ships;

(2) Pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere;

(3) Bottoms receiver tanks;

(4) Surge control vessels;

(5) Vessels storing wastewater; or

(6) Reactor vessels associated with a manufacturing process unit.

Tank car means a car designed to carry liquid freight by rail, and including a permanently attached tank.

Transfer rack means a single system used to load organic liquids into transport vehicles. It includes all loading arms, pumps, meters, shutoff valves, relief valves, and other piping and equipment necessary for the transfer operation. Transfer equipment and operations that are physically separate (*i.e.*, do not share common piping, valves, and other equipment) are considered to be separate transfer racks.

Transport vehicle means a cargo tank or tank car.

Vapor balancing system means a piping system that collects organic HAP vapors displaced from transport vehicles during loading and routes the collected vapors to the storage tank from which the liquid being loaded originated or compresses the vapors for feeding into a chemical manufacturing process unit.

Vapor collection system means any equipment located at the source (*i.e.*, at the OLD operation) that is not open to

the atmosphere; that is composed of piping, connections, and, if necessary, flow-inducing devices; and that is used for containing and conveying vapors displaced during the loading of transport vehicles to a control device or for vapor balancing. This does not include any of the vapor collection equipment that is installed on the transport vehicle.

Vapor-tight transport vehicle means a transport vehicle that has been demonstrated to be vapor-tight. To be considered vapor-tight, a transport vehicle equipped with vapor collection equipment must undergo a pressure change of no more than 250 pascals (1 inch of water) within 5 minutes after it is pressurized to 4,500 pascals (18 inches of water). This capability must be demonstrated annually using the procedures specified in EPA Method 27 of 40 CFR part 60, appendix A. For all other transport vehicles, vapor tightness is demonstrated by performing the U.S. DOT pressure test procedures for tank cars and cargo tanks.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

Tables to Subpart EEEE of Part 63

You must use the organic HAP information listed in the following table to determine which of the liquids handled at your facility meet the HAP content criteria in the definition of Organic Liquid in § 63.2406.

TABLE 1 TO SUBPART EEEE OF PART 63.—ORGANIC HAZARDOUS AIR POLLUTANTS

Compound name	CAS No.[1]
2,4-D salts and esters	94–75–7
Acetaldehyde	75–07–0
Acetonitrile	75–05–8
Acetophenone	98–86–2
Acrolein	107–02–8
Acrylamide	79–06–1
Acrylic acid	79–10–7
Acrylonitrile	107–13–1
Allyl chloride	107–05–1
Aniline	62–53–3
Benzene	71–43–2
Biphenyl	92–52–4
Butadiene (1,3-)	106–99–0
Carbon tetrachloride	56–23–5
Chloroacetic acid	79–11–8
Chlorobenzene	108–90–7
2-Chloro-1,3-butadiene (Chloroprene)	126–99–8
Chloroform	67–66–3
m-Cresol	108–39–4
o-Cresol	95–48–7
p-Cresol	106–44–5
Cresols/cresylic acid	1319–77–3
Cumene	98–82–8
Dibenzofurans	132–64–9
Dibutylphthalate	84–74–2
Dichloroethane (1,2-) (Ethylene dichloride) (EDC)	107–06–2
Dichloropropene (1,3-)	542–75–6
Diethanolamine	111–42–2
Diethyl aniline (N,N-)	121–69–7
Diethylene glycol monobutyl ether	112–34–5
Diethylene glycol monomethyl ether	111–77–3
Diethyl sulfate	64–67–5
Dimethyl formamide	68–12–2
Dimethylhydrazine (1,1-)	57–14–7
Dioxane (1,4-) (1,4-Diethyleneoxide)	123–91–1
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106–89–8
Epoxybutane (1,2-)	106–88–7
Ethyl acrylate	140–88–5
Ethylbenzene	100–41–4
Ethyl chloride (Chloroethane)	75–00–3
Ethylene dibromide (Dibromomethane)	106–93–4
Ethylene glycol	107–21–1
Ethylene glycol dimethyl ether	110–71–4
Ethylene glycol monomethyl ether	109–86–4
Ethylene glycol monomethyl ether acetate	110–49–6
Ethylene glycol monophenyl ether	122–99–6
Ethylene oxide	75–21–8
Ethylidene dichloride (1,1-Dichloroethane)	75–34–3
Formaldehyde	50–00–0
Hexachloroethane	67–72–1
Hexane	110–54–3
Hydroquinone	123–31–9
Isophorone	78–59–1
Maleic anhydride	108–31–6
Methanol	67–56–1
Methyl chloride (Chloromethane)	74–87–3

TABLE 1 TO SUBPART EEEE OF PART 63.—ORGANIC HAZARDOUS AIR POLLUTANTS—Continued

Compound name	CAS No.[1]
Methylene chloride (Dichloromethane)	75–09–2
Methylenedianiline (4,4'-)	101–77–9
Methylene diphenyl diisocyanate	101–68–8
Methyl ethyl ketone (2-Butanone) (MEK)	78–93–3
Methyl hydrazine	60–34–4
Methyl isobutyl ketone (Hexone) (MIBK)	108–10–1
Methyl methacrylate	80–62–6
Methyl tert-butyl ether (MTBE)	1634–04–4
Naphthalene	91–20–3
Nitrobenzene	98–95–3
Phenol	108–9–52
Phthalic anhydride	85–44–9
Polycyclic organic matter	50–32–8
Propionaldehyde	123–38–6
Propylene dichloride (1,2-Dichloropropane)	78–87–5
Propylene oxide	75–56–9
Quinoline	91–22–5
Styrene	100–42–5
Styrene oxide	96–09–3
Tetrachloroethane (1,1,2,2-)	79–34–5
Tetrachloroethylene (Perchloroethylene)	127–18–4
Toluene	108–88–3
Toluene diisocyanate (2,4-)	584–84–9
o-Toluidine	95–53–4
Trichlorobenzene (1,2,4-)	120–82–1
Trichloroethane (1,1,1-) (Methyl chloroform)	71–55–6
Trichloroethane (1,1,2-) (Vinyl trichloride)	79–00–5
Trichloroethylene	79–01–6
Triethylamine	121–44–8
Trimethylpentane (2,2,4-)	540–84–1
Vinyl acetate	108–05–4
Vinyl chloride (Chloroethylene)	75–01–4
Vinylidene chloride (1,1-Dichloroethylene)	75–35–4
Xylene (m-)	108–38–3
Xylene (o-)	95–47–6
Xylene (p-)	106–42–3
Xylenes (isomers and mixtures)	1330–20–7

[1] CAS numbers refer to the Chemical Abstracts Services registry number assigned to specific compounds, isomers, or mixtures of compounds.

As stated in § 63.2346, you must comply with the emission limits for the organic liquids distribution emission sources as follows:

TABLE 2 TO SUBPART EEEE OF PART 63.—EMISSION LIMITS

If you own or operate . . .	And if . . .	Then you must . . .
1. A storage tank at an existing affected source with a capacity ≥18.9 cubic meters (5,000 gallons) and <189.3 cubic meters (50,000 gallons).	a. The stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is ≥27.6 kilopascals (4.0 psia) and <76.6 kilopascals (11.1 psia).	i. Reduce emissions of organic HAP (or, upon approval, TOC) by 95 weight-percent or, as an option, to an exhaust concentration less than or equal to 20 parts per million by volume, on a dry basis corrected to 3% oxygen for combustion devices using supplemental combustion air, by venting emissions through a closed vent system to any combination of control devices meeting the applicable requirements of 40 CFR part 63, subpart SS; OR ii. Comply with the work practice standards specified in Table 4 to this subpart, item 1.a, for tanks storing the liquids described in that table.
	b. The stored organic liquid is crude oil.	i. See the requirement in item 1.a.i or 1.a.ii of this table.
2. A storage tank at an existing affected source with a capacity ≥189.3 cubic meters (50,000 gallons).	a. The stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is <76.6 kilopascals (11.1 psia).	i. See the requirement in item 1.a.i or 1.a.ii of this table.
	b. The stored organic liquid is crude oil.	i. See the requirement in item 1.a.i or 1.a.ii of this table.

TABLE 2 TO SUBPART EEEE OF PART 63.—EMISSION LIMITS—Continued

If you own or operate . . .	And if . . .	Then you must . . .
3. A storage tank at a reconstructed or new affected source with a capacity ≥18.9 cubic meters (5,000 gallons) and <37.9 cubic meters (10,000 gallons).	a. The stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is ≥27.6 kilopascals (4.0 psia) and <76.6 kilopascals (11.1 psia).	i. See the requirement in item 1.a.i or 1.a.ii of this table.
	b. The stored organic liquid is crude oil.	i. See the requirement in item 1.a.i or 1.a.ii of this table.
4. A storage tank at a reconstructed or new affected source with a capacity ≥37.9 cubic meters (10,000 gallons) and <189.3 cubic meters (50,000 gallons).	a. The stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is ≥0.7 kilopascals (0.1 psia) and <76.6 kilopascals (11.1 psia).	i. See the requirement in item 1.a.i or 1.a.ii of this table.
	b. The stored organic liquid is crude oil.	i. See the requirement in item 1.a.i or 1.a.ii of this table.
5. A storage tank at a reconstructed or new affected source with a capacity ≥189.3 cubic meters (50,000 gallons).	a. The stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is <76.6 kilopascals (11.1 psia).	i. See the requirement in item 1.a.i or 1.a.ii of this table.
	b. The stored organic liquid is crude oil.	i. See the requirement in item 1.a.i or 1.a.ii of this table.
6. A storage tank at an existing, reconstructed, or new affected source meeting the capacity criteria specified in Table 2, items 1 through 5 of this subpart.	a. The stored organic liquid is not crude oil and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is ≥76.6 kilopascals (11.1 psia).	i. Reduce emissions of organic HAP (or, upon approval, TOC) by 95 weight-percent or, as an option, to an exhaust concentration less than or equal to 20 parts per million by volume, on a dry basis corrected to 3% oxygen for combustion devices using supplemental combustion air, by venting emissions through a closed vent system to any combination of control devices meeting the applicable requirements of 40 CFR part 63, subpart SS.
7. A transfer rack at an existing facility where the total actual annual facility-level organic liquid loading volume through transfer racks out of the facility is between 800,000 gallons and less than 10 million gallons.	a. The organic HAP content of the organic liquid through the transfer rack is at least 98% by weight.	i. Reduce emissions of organic HAP (or, upon approval, TOC) from the loading of organic liquids by venting emissions through a closed vent system to any combination of control devices achieving 98 weight-percent HAP reduction, or as an option to an exhaust concentration less than or equal to 20 parts per million by volume, on a dry basis corrected to 3% oxygen for combustion devices using supplemental combustion air; AND ii. Vent emissions through a closed vent system to any combination of control devices meeting the applicable requirements of 40 CFR part 63, subpart SS, AND iii. Comply with the work practice standards specified in Table 4 to this subpart, item 2.
8. A transfer rack at an existing facility where the total actual annual facility-level organic liquid loading volume through transfer racks out of the facility is ≥10 million gallons.		i. See the requirements in items 7.a.i through 7.a.iii of this table.
9. A transfer rack at a new facility where the total actual annual facility-level organic liquid loading volume through transfer racks out of the facility is less than 800,000 gallons.	a. The organic HAP content of the organic liquid through the transfer rack is at least 25% by weight and the transfer rack is used for transferring organic liquids into transport vehicles.	i. See the requirements in items 7.a.i through 7.a.iii of this table.
	b. The transfer rack is used for the filling of containers with a capacity equal to or greater than 55 gallons.	i. Comply with the provisions of §§ 63.924 through 63.927 of 40 CFR part 63, Subpart PP—National Emission Standards for Containers, Container Level 3 controls.
10. A transfer rack at a new facility where the total actual annual facility-level organic liquid loading volume through transfer racks out of the facility is equal to or greater than 800,000 gallons.	a. The transfer rack is used for transferring organic liquids into transport vehicles.	i. See the requirements in items 7.a.i through 7.a.iii of this table.
	b. The transfer rack is used for the filling of containers with a capacity equal to or greater than 55 gallons.	i. Comply with the provisions of §§ 63.924 through 63.927 of 40 CFR part 63, Subpart PP—National Emission Standards for Containers, Container Level 3 controls.

As stated in § 63.2346(e), you must comply with the operating limits for existing, reconstructed, or new affected sources as follows:

TABLE 3 TO SUBPART EEEE OF PART 63.—OPERATING LIMITS—HIGH THROUGHPUT TRANSFER RACKS

For each existing, each reconstructed, and each new affected source using . . .	You must . . .
1. A thermal oxidizer to comply with an emission limit in Table 2 to this subpart.	Maintain the daily average fire box or combustion zone temperature greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.
2. A catalytic oxidizer to comply with an emission limit in Table 2 to this subpart.	a. Replace the existing catalyst bed before the age of the bed exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND b. Maintain the daily average temperature at the inlet of the catalyst bed greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND c. Maintain the daily average temperature difference across the catalyst bed greater than or equal to the minimum temperature difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.
3. An absorber to comply with an emission limit in Table 2 to this subpart.	a. Maintain the daily average concentration level of organic compounds in the absorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR b. Maintain the daily average scrubbing liquid temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND c. Maintain the difference between the specific gravities of the saturated and fresh scrubbing fluids greater than or equal to the difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.
4. A condenser to comply with an emission limit in Table 2 to this subpart.	a. Maintain the daily average concentration level of organic compounds at the condenser exit less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR b. Maintain the daily average condenser exit temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.
5. An adsorption system with adsorbent regeneration to comply with an emission limit in Table 2 to this subpart	a. Maintain the daily average concentration level of organic compounds in the adsorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR b. Maintain the total regeneration stream mass flow during the adsorption bed regeneration cycle greater than or equal to the reference stream mass flow established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND c. Before the adsorption cycle commences, achieve and maintain the temperature of the adsorption bed after regeneration less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND d. Achieve a pressure reduction during each adsorption bed regeneration cycle greater than or equal to the pressure reduction established during the design evaluation or performance test that demonstrated compliance with the emission limit.
6. An adsorption system without adsorbent regeneration to comply with an emission limit in Table 2 to this subpart.	a. Maintain the daily average concentration level of organic compounds in the adsorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR b. Replace the existing adsorbent in each segment of the bed with an adsorbent that meets the replacement specifications established during the design evaluation or performance test before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND c. Maintain the temperature of the adsorption bed less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.
7. A flare to comply with an emission limit in Table 2 to this subpart.	a. Comply with the equipment and operating requirements in § 63.987(a); AND b. Conduct an initial flare compliance assessment in accordance with § 63.987(b); AND c. Install and operate monitoring equipment as specified in § 63.987(c).
8. Another type of control device to comply with an emission limit in Table 2 to this subpart.	Submit a monitoring plan as specified in §§ 63.995(c) and 63.2366(c), and monitor the control device in accordance with that plan.

As stated in § 63.2346, you may elect to comply with one of the work practice standards for existing, reconstructed, or new affected sources in the following table. If you elect to do so, . . .

TABLE 4 TO SUBPART EEEE OF PART 63.—WORK PRACTICE STANDARDS

For each . . .	You must . . .
1. Storage tank at an existing, reconstructed, or new affected source meeting any set of tank capacity and organic HAP vapor pressure criteria specified in Table 2 to this subpart, items 1 through 5.	a. Comply with the requirements of 40 CFR part 63, subpart WW (control level 2), if you elect to meet 40 CFR part 63, subpart WW (control level 2), requirements as an alternative to the emission limit in Table 2 to this subpart, items 1 through 5; OR b. Comply with the requirements of §63.984 in 40 CFR part 63, subpart SS, for routing emissions to a fuel gas system or back to the process.
2. Transfer rack at an existing, reconstructed, or new affected source meeting the facility-level organic liquid loading volume and transfer rack HAP content for organic liquids specified in Table 2 to this subpart, items 7 through 9.	a. If the option of a vapor balancing system is selected, install and operate a system that meets the requirements in Table 7 to this subpart, item 3.b; OR b. Comply with the requirements of §63.984 in 40 CFR part 63, subpart SS, for routing emissions to a fuel gas system or back to the process.
3. Pump, valve, and sampling connection that operates in organic liquids service at least 300 hours per year at an existing, reconstructed, or new affected source.	Comply with the requirements for pumps, valves, and sampling connections in 40 CFR part 63, subpart TT (control level 1), subpart UU (control level 2), or subpart H.
4. Transport vehicles equipped with vapor collection equipment,	Follow the steps in 40 CFR 60.502(e) to ensure that organic liquids are loaded only into vapor-tight transport vehicles, and comply with the provisions in 40 CFR §60.502(f), (g), (h), and (i), except substitute the term transport vehicle at each occurrence of tank truck or gasoline tank truck in those paragraphs.
5. Transport vehicles without vapor collection equipment,	Ensure that organic liquids are loaded only into transport vehicles that have a current certification in accordance with the U.S. DOT pressure test requirements in 49 CFR 180 (cargo tanks) or 49 CFR 173.31 (tank cars).

As stated in §§ 63.2354(a) and 63.2362, you must comply with the requirements for performance tests and design evaluations for existing, reconstructed, or new affected sources as follows:

TABLE 5 TO SUBPART EEEE OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS AND DESIGN EVALUATIONS

For . . .	You must conduct . . .	According to . . .	Using . . .	To determine . . .	According to the following requirements . . .
1. Each existing, each reconstructed, and each new affected source using a nonflare control device to comply with an emission limit in Table 2 to this subpart, items 1 through 9.	a. A performance test to determine the organic HAP (or, upon approval, TOC) control efficiency of each nonflare control device, OR the exhaust concentration of each combustion device; OR	i. §63.985(b)(1)(ii), §63.988(b), §63.990(b), or §63.995(b).	(1) EPA Method 1 or 1A in appendix A of 40 CFR part 60, as appropriate.	(A) Sampling port locations and the required number of traverse points.	(i) Sampling sites must be located at the inlet and outlet of each control device if complying with the control efficiency requirement or at the outlet of the control device if complying with the exhaust concentration requirement; AND (ii) The outlet sampling site must be located at each control device prior to any releases to the atmosphere.
			(2) EPA Method 2, 2A, 2C, 2D, 2F, or 2G in appendix A of 40 CFR part 60, as appropriate.	(A) Stack gas velocity and volumetric flow rate.	See the requirements in items 1.a.i.(1)(A) (i) and (ii) of this table.
			(3) EPA Method 3 or 3B in appendix A of 40 CFR part 60, as appropriate.	(A) Concentration of CO_2 and O_2 and dry molecular weight of the stack gas.	See the requirements in items 1.a.i.(1)(A) (i) and (ii) of this table.
			(4) EPA Method 4 in appendix A of 40 CFR part 60.	(A) Moisture content of the stack gas.	See the requirements in items 1.a.i.(1)(A) (i) and (ii) of this table.

TABLE 5 TO SUBPART EEEE OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS AND DESIGN EVALUATIONS—Continued

For . . .	You must conduct . . .	According to . . .	Using . . .	To determine . . .	According to the following requirements . . .
			(5) EPA Method 18, 25, or 25A in appendix A of 40 CFR part 60, as appropriate, or EPA Method 316 in appendix A of 40 CFR part 63 for measuring formaldehyde.	(A) Total organic HAP (or, upon approval, TOC), or formaldehyde emissions.	(i) The organic HAP used for the calibration gas for EPA Method 25A must be the single organic HAP representing the largest percent by volume of emissions; AND (ii) During the performance test, you must establish the operating parameter limits within which total organic HAP (or, upon approval, TOC) emissions are reduced by the required weight-percent or, as an option for nonflare combustion devices, to 20 ppmv exhaust concentration.
	b. A design evaluation (for nonflare control devices) to determine the organic HAP (or, upon approval, TOC) control efficiency of each nonflare control device, or the exhaust concentration of each combustion control device.	§63.985(b)(1)(i).			During a design evaluation, you must establish the operating parameter limits within which total organic HAP, (or, upon approval, TOC) emissions are reduced by at least 95 weight-percent or as an option to 20 ppmv exhaust concentration.
2. Each transport vehicle that you own or operate that is equipped with vapor collection equipment and loads organic liquids at an affected transfer rack at an existing, reconstructed, or new affected source.	A performance test to determine the vapor tightness of the tank and then repair as needed until it passes the test.		EPA Method 27 in appendix A of 40 CFR part 60.	vapor tightness.	The pressure change in the tank must be no more than 250 pascals (1 inch of water) in 5 minutes after it is pressurized to 4,500 pascals (18 inches of water).

As stated in §§ 63.2370(a) and 63.2382(b), you must show initial compliance with the emission limits for existing, reconstructed, or new affected sources as follows:

TABLE 6 TO SUBPART EEEE OF PART 63.—INITIAL COMPLIANCE WITH EMISSION LIMITS

For each . . .	For the following emission limit . . .	You have demonstrated initial compliance if . . .
1. Storage tank at an existing, reconstructed, or new affected source meeting either set of tank capacity and liquid organic HAP vapor pressure criteria specified in Table 2 to this subpart, items 1 through 6	Reduce total organic HAP (or, upon approval, TOC) emissions by at least 95 weight-percent, or as an option for combustion devices to an exhaust concentration of ≤20 ppmv.	Total organic HAP (or, upon approval, TOC) emissions, based on the results of the performance testing or design evaluation specified in Table 5 to this subpart, item 1.a or 1.b, respectively, are reduced by at least 95 weight-percent or as an option to an exhaust concentration ≤20 ppmv.
2. Transfer rack at an existing, reconstructed, or new affected source meeting the facility-level organic liquid loading volume and transfer rack HAP content for organic liquids criteria specified in Table 2 to this subpart, items 7 through 9.	Reduce total organic HAP (or, upon approval, TOC) emissions by at least 98 weight-percent, or as an option for combustion devices to an exhaust concentration of ≤20 ppmv.	Total organic HAP (or, upon approval, TOC) emissions, based on the results of the performance testing or design evaluation specified in Table 5 to this subpart, item 1.a or 1.b, respectively, are reduced by at least 98 weight-percent or as an option for combustion devices to an exhaust concentration of ≤20 ppmv.

TABLE 7 TO SUBPART EEEE OF PART 63.—INITIAL COMPLIANCE WITH WORK PRACTICE STANDARDS

For each . . .	If you . . .	You have demonstrated initial compliance if . . .
1. Storage tank at an existing affected source meeting either set of tank capacity and liquid organic HAP vapor pressure criteria specified in Table 2 to this subpart, items 1 or 2.	a. Install a floating roof or equivalent control that meets the requirements in Table 4 to this subpart, item 1.a.	i. After emptying and degassing, you visually inspect each internal floating roof before the refilling of the storage tank and perform seal gap inspections of the primary and secondary rim seals of each external floating roof within 90 days after the refilling of the storage tank.
	b. Route emissions to a fuel gas system or back to the process.	i. You meet the requirements in §63.984(b) and submit the statement of connection required by §63.984(c).
2. Storage tank at a reconstructed or new affected source meeting any set of tank capacity and liquid organic HAP vapor pressure criteria specified in Table 2 to this subpart, items 3 through 5.	a. Install a floating roof or equivalent control that meets the requirements in Table 4 to this subpart, item 1.a.	i. You visually inspect each internal floating roof before the initial filling of the storage tank, and perform seal gap inspections of the primary and secondary rim seals of each external floating roof within 90 days after the initial filling of the storage tank.
	b. Route emissions to a fuel gas system or back to the process.	i. See item 1.b.i of this table.
3. Transfer rack at an existing, reconstructed, or new affected source that meets the facility-level organic liquid loading volume and transfer rack HAP content for organic liquids criteria specified in Table 2 to this subpart, items 7 through 9.	a. Load organic liquids only into transport vehicles having current vapor tightness certification as described in Table 4 to this subpart, item 4.a and item 5.a.	i. You comply with the provisions specified in Table 4 to this subpart, item 4.a and item 5.a, as applicable.
	b. Install and operate a vapor balancing system.	i. You design and operate the vapor balancing system to route organic HAP vapors displaced from loading of organic liquids into transport vehicles to the appropriate storage tank or process unit.
4. Equipment leak component, as defined in §63.2406, that operates in organic liquids service ≥ 300 hours per year at an existing, reconstructed, or new affected source.	a. Carry out a leak detection and repair program or equivalent control according to one of the subparts listed in Table 4 to this subpart, item 3.a.	i. You specify which one of the control programs listed in Table 4 to this subpart you have selected, OR ii. Provide written specifications for your equivalent control approach.

As stated in §§ 63.2378(a) and (b) and 63.2390(b), you must show continuous compliance with the emission limits for existing, reconstructed, or new affected sources according to the following table:

TABLE 8 TO SUBPART EEEE OF PART 63.—CONTINUOUS COMPLIANCE WITH EMISSION LIMITS

For each . . .	For the following emission limit . . .	You must demonstrate continuous compliance by . . .
1. Storage tank at an existing, reconstructed, or new affected source meeting any set of tank capacity and liquid organic HAP vapor pressure criteria specified in Table 2 to this subpart, items 1 through 6.	a. Reduce total organic HAP (or, upon approval, TOC) emissions from the closed vent system and control device by 95 weight-percent or greater, or as an option to 20 ppmv or less of total organic HAP (or, upon approval, TOC) in the exhaust of combustion devices.	i. Performing CMS monitoring and collecting data according to §§ 63.2366, 63.2374, and 63.2378; AND ii. Maintaining the operating limits established during the design evaluation or performance test.
2. Transfer rack at an existing, reconstructed, or new affected source that meets the facility-level organic liquid loading volume and transfer rack HAP content for organic liquids criteria specified in Table 2, to this supbart items 7 through 9.	Reduce total organic HAP (or, upon approval, TOC) emissions from the closed vent system and control device by 98 weight-percent or greater, or as an option to 20 ppmv or less of organic HAP (or, upon approval, TOC) in the exhaust of combustion devices.	See the compliance demonstration in items 1.a.i and ii of this table.

As stated in § 63.2378(a) and (b) and 63.2390(b), you must show continuous compliance with the operating limits for existing, reconstructed, or new affected sources according to the following table:

TABLE 9 TO SUBPART EEEE OF PART 63.—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS—HIGH THROUGHPUT TRANSFER RACKS

For each existing, reconstructed, and each new affected source using . . .	For the following operating limit . . .	You must demonstrate continuous compliance by . . .
1. A thermal oxidizer to comply with an emission limit in Table 2 to this subpart.	a. Maintain the daily average fire box or combustion zone, as applicable, temperature greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.	i. Continuously monitoring and recording fire box or combustion zone, as applicable, temperature every 15 minutes and maintaining the daily average fire box temperature greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in § 63.998.
2. A catalytic oxidizer to comply with an emission limit in Table 2 to this subpart.	a. Replace the existing catalyst bed before the age of the bed exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit.	i. Replacing the existing catalyst bed before the age of the bed exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in § 63.998.
	b. Maintain the daily average temperature at the inlet of the catalyst bed greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.	i. Continuously monitoring and recording the temperature at the inlet of the catalyst bed at least every 15 minutes and maintaining the daily average temperature at the inlet of the catalyst bed greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in § 63.998.
	c. Maintain the daily average temperature difference across the catalyst bed greater than or equal to the minimum temperature difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.	i. Continuously monitoring and recording the temperature at the outlet of the catalyst bed every 15 minutes and maintaining the daily average temperature difference across the catalyst bed greater than or equal to the minimum temperature difference established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in § 63.998.
3. An absorber to comply with an emission limit in Table 2 to this subpart.	a. Maintain the daily average concentration level of organic compounds in the absorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR	Continuously monitoring the organic concentration in the absorber exhaust and maintaining the daily average concentration less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit.
	b. Maintain the daily average scrubbing liquid temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND	Continuously monitoring the scrubbing liquid temperature and maintaining the daily average temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND
	c. Maintain the difference between the specific gravities of the saturated and fresh scrubbing fluids greater than or equal to the difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.	Maintaining the difference between the specific gravities greater than or equal to the difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.

TABLE 9 TO SUBPART EEEE OF PART 63.—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS—HIGH THROUGHPUT TRANSFER RACKS—Continued

For each existing, reconstructed, and each new affected source using . . .	For the following operating limit . . .	You must demonstrate continuous compliance by . . .
4. A condenser to comply with an emission limit in Table 2 to this subpart.	a. Maintain the daily average concentration level of organic compounds at the exit of the condenser less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR b. Maintain the daily average condenser exit temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.	Continuously monitoring the organic concentration at the condenser exit and maintaining the daily average concentration less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit. i. Continuously monitoring and recording the temperature at the exit of the condenser at least every 15 minutes and maintaining the daily average temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in §63.998.
5. An adsorption system with adsorbent regeneration to comply with an emission limit in Table 2 to this subpart.	a. Maintain the daily average concentration level of organic compounds in the adsorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit. b. Maintain the total regeneration stream mass flow during the adsorption bed regeneration cycle greater than or equal to the reference stream mass flow established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND c. Before the adsorption cycle commences, achieve and maintain the temperature of the adsorption bed after regeneration less than or equal to the reference temperature established during the design evaluation or performance test AND achieve greater than or equal to the pressure reduction during the adsorption bed regeneration cycle established during the design evaluation or performance test that demonstrated compliance with the emission limit.	i. Continuously monitoring the daily average organic concentration in the adsorber exhaust and maintaining the concentration less than or equal to the reference concentration; AND ii. Keeping the applicable records required in §63.998. Maintaining the total regeneration stream mass flow during the adsorption bed regeneration cycle greater than or equal to the reference stream mass flow established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND Maintaining the temperature of the adsorption bed after regeneration less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit AND Achieving greater than or equal to the pressure reduction during the regeneration cycle established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in §63.998.
6. An adsorption system without adsorbent regeneration to comply with an emission limit in Table 2 to this subpart.	a. Maintain the daily average concentration level of organic compounds in the adsorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR Continuously monitoring the organic concentration in the adsorber exhaust and maintaining the concentration less than or equal to the reference concentration. b. Replace the existing adsorbent in each segment of the bed before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND	i. Replacing the existing adsorbent in each segment of the bed before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in §63.998.

TABLE 9 TO SUBPART EEEE OF PART 63.—CONTINUOUS COMPLIANCE WITH OPERATING LIMITS—HIGH THROUGHPUT TRANSFER RACKS—Continued

For each existing, reconstructed, and each new affected source using . . .	For the following operating limit . . .	You must demonstrate continuous compliance by . . .
	c. Maintain the temperature of the adsorption bed less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.	i. Maintaining the temperature of the adsorption bed less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in §63.998.
7. A flare to comply with an emission limit in Table 2 to this subpart.	a. Maintain a pilot flame in the flare at all times that vapors may be vented to the flare (§63.11(b)(5)).	i. Continuously operating a device that detects the presence of the pilot flame; AND ii. Keeping the applicable records required in §63.998.
	b. Maintain a flare flame at all times that vapors are being vented to the flare (§63.11(b)(5)).	i. Maintaining a flare flame at all times that vapors are being vented to the flare; AND ii. Keeping the applicable records required in §63.998.
	c. Operate the flare with no visible emissions, except for up to 5 minutes in any 2 consecutive hours (§63.11(b)(4)).	i. Operating the flare with no visible emissions exceeding the amount allowed; AND ii. Keeping the applicable records required in §63.998.
	d. Operate the flare with an exit velocity that is within the applicable limits in §63.11(b)(6), (7), and (8).	i. Operating the flare within the applicable exit velocity limits; AND ii. Keeping the applicable records required in §63.998.
	e. Operate the flare with a net heating value of the gas being combusted greater than the applicable minimum value in §63.11(b)(6)(ii).	i. Operating the flare with the gas net heating value within the applicable limit; AND ii. Keeping the applicable records required in §63.998.
8. Another type of control device to comply with an emission limit in Table 2 to this subpart.	Submit a monitoring plan as specified in §§63.995(c) and 63.2366(c), and monitor the control device in accordance with that plan.	Submitting a monitoring plan and monitoring the control device according to that plan.

As stated in §§63.2378(a) and (b) and 63.2386(c)(6), you must show continuous compliance with the work practice standards for existing, reconstructed, or new affected sources according to the following table:

TABLE 10 TO SUBPART EEEE OF PART 63.—CONTINUOUS COMPLIANCE WITH WORK PRACTICE STANDARDS

For each . . .	For the following standard . . .	You must demonstrate continuous compliance by . . .
1. Internal floating roof (IFR) storage tank at an existing, reconstructed, or new affected source meeting any set of tank capacity and vapor pressure criteria specified in Table 2 to this subpart, items 1 through 5.	a. Install a floating roof designed and operated according to the applicable specifications in §63.1063(a) and (b).	i. Visually inspecting the floating roof deck, deck fittings, and rim seals of each IFR: once per year, and each time the storage tank is completely emptied and degassed, or every 10 years, whichever occurs first (§63.1063(c)(1), (d), and (e)); AND ii. Keeping the tank records required in §63.1065.
2. External floating roof (EFR) storage tank at an existing, reconstructed, or new affected source meeting any set of tank capacity and vapor pressure criteria specified in Table 2 to this subpart, items 1 through 5.	a. See the standard in item 1.a of this table.	i. Visually inspecting the floating roof deck, deck fittings, and rim seals of each EFR each time the storage tank is completely emptied and degassed, or every 10 years, whichever occurs first (§63.1063(c)(2), (d), and (e)); AND ii. Performing seal gap measurements on the secondary seal of each EFR at least once every year, and on the primary seal of each EFR at least every 5 years (§63.1063(c)(2), (d), and (e)); AND iii. Keeping the tank records required in §63.1065.
3. IFR or EFR tank at an existing, reconstructed, or new affected source meeting any set of tank capacity and vapor pressure criteria specified in Table 2 to this subpart, items 1 through 5.	a. Repair the conditions causing storage tank inspection failures (§63.1063(e)).	i. Repairing conditions causing inspection failures: before refilling the storage tank with organic liquid, or within 45 days (or up to 105 days with extensions) for a tank containing organic liquid; AND ii. Keeping the tank records required in §63.1065(b).

TABLE 10 TO SUBPART EEEE OF PART 63.—CONTINUOUS COMPLIANCE WITH WORK PRACTICE STANDARDS—Continued

For each . . .	For the following standard . . .	You must demonstrate continuous compliance by . . .
4. Transfer rack at an existing, reconstructed, or new affected source that meets the facility-level organic liquid loading volume and transfer rack HAP content for organic liquids criteria specified in Table 2 to this subpart, items 7 through 9.	a. Ensure that organic liquids are loaded into transport vehicles in accordance with the requirements in Table 4 to this subpart, items 2.a, 2.b, and 2.c.	i. Ensuring that organic liquids are loaded into transport vehicles in accordance with the requirements in Table 4 to this subpart, items 2.a, 2.b, and 2.c.
	b. Install and operate a vapor balancing system.	i. Monitoring each potential source of vapor leakage in the system quarterly during the loading of a transport vehicle using the methods and procedures described in the rule requirements selected for the work practice standard for equipment leak components as specified in Table 4 to this subpart, item 3. An instrument reading of 500 ppmv defines a leak. Repair of leaks is performed according to the repair requirements specified in your selected equipment leak standards.
5. Equipment leak component, as defined in §63.2406, that operates in organic liquids service at least 300 hours per year.	a. Comply with the requirements of 40 CFR part 63, subpart TT, UU, or H.	i. Carrying out a leak detection and repair program in accordance with one of the subparts listed in item 5.a of this table.
6. Storage tank at an existing, reconstructed, or new affected source meeting any of the tank capacity and vapor pressure criteria specified in Table 2 to this subpart, items 1 through 6.	a. Route emissions to a fuel gas system or back to the process.	i. Continuing to meet the requirements specified in §63.984(b).

As stated in §63.2386(a), (b), and (f), you must submit compliance reports and startup, shutdown, and malfunction reports according to the following table:

TABLE 11 TO SUBPART EEEE OF PART 63.—REQUIREMENTS FOR REPORTS

You must submit a(n) . . .	The report must contain . . .	You must submit the report . . .
1. Compliance report, or Periodic Report.	a. The information specified in §63.2386(c), (d), and (e). If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your SSM plan, the report must also include the information in §63.10(d)(5)(i).	Semiannually, and it must be postmarked by January 31 or July 31, in accordance with §63.2386(b).
	b. The information required by 40 CFR part 63, subpart TT, UU, or H, as applicable, for pumps, valves, and sampling connections.	See the submission requirement in item 1.a of this table.
	c. The information required by §63.999(c).	See the submission requirement in item 1.a of this table.
	d. The information specified in §63.1066(b) including: notification of inspection, inspection results, requests for alternate devices, and requests for extensions, as applicable.	See the submission requirement in item 1.a of this table.
2. Immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period, and you took an action that was not consistent with your SSM plan.	a. The information required in §63.10(d)(5)(ii).	i. By FAX or telephone within 2 working days after starting actions inconsistent with the plan; AND ii. By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority (§63.10(d)(5)(ii)).

As stated in §§63.2382 and 63.2398, you must comply with the applicable General Provisions requirements as follows:

TABLE 12 TO SUBPART EEEE OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART EEEE

Citation	Subject	Brief description	Applies to subpart EEEE
§63.1	Applicability	Initial applicability determination; Applicability after standard established; Permit requirements; Extensions, Notifications.	Yes.
§63.2	Definitions	Definitions for part 63 standards	Yes.
§63.3	Units and Abbreviations	Units and abbreviations for part 63 standards	Yes.
§63.4	Prohibited Activities and Circumvention.	Prohibited activities; Circumvention, Severability	Yes.

TABLE 12 TO SUBPART EEEE OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART EEEE—Continued

Citation	Subject	Brief description	Applies to subpart EEEE
§ 63.5	Construction/Reconstruction	Applicability; Applications; Approvals	Yes.
§ 63.6(a)	Compliance with Standards/ O&M Applicability.	GP apply unless compliance extension; GP apply to area sources that become major.	Yes.
§ 63.6(b)(1)–(4)	Compliance Dates for New and Reconstructed Sources.	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for section 112(f).	Yes.
§ 63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal.	Yes.
§ 63.6(b)(6)	[Reserved].		
§ 63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major.	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source.	Yes.
§ 63.6(c)(1)–(2)	Compliance Dates for Existing Sources.	Comply according to date in this subpart, which must be no later than 3 years after effective date; for section 112(f) standards, comply within 90 days of effective date unless compliance extension.	Yes.
§ 63.6(c)(3)–(4)	[Reserved].		
§ 63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major.	Area sources that become major must comply with major source standards by date indicated in this subpart or by equivalent time period (*e.g.*, 3 years).	Yes.
§ 63.6(d)	[Reserved].		
§ 63.6(e)(1)	Operation & Maintenance	Operate to minimize emissions at all times; correct malfunctions as soon as practicable; and operation and maintenance requirements independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met.	Yes.
§ 63.6(e)(2)	[Reserved].		
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction (SSM) Plan.	Requirement for SSM plan; content of SSM plan; actions during SSM.	Yes; however, the 2-day reporting requirement in paragraph § 63.6(e)(3)(iv) does not apply.
§ 63.6(f)(1)	Compliance Except During SSM.	You must comply with emission standards at all times except during SSM.	Yes.
§ 63.6(f)(2)–(3)	Methods for Determining Compliance.	Compliance based on performance test, operation and maintenance plans, records, inspection.	Yes.
§ 63.6(g)(1)–(3)	Alternative Standard	Procedures for getting an alternative standard	Yes.
§ 63.6(h)(1)	Compliance with Opacity/ Visible Emission (VE) Standards.	You must comply with opacity/VE standards at all times except during SSM.	No.
§ 63.6(h)(2)(i)	Determining Compliance with Opacity/VE Standards.	If standard does not state test method, use EPA Method 9 for opacity in appendix A of part 60 of this chapter and EPA Method 22 for VE in appendix A of part 60 of this chapter.	No.
§ 63.6(h)(2)(ii)	[Reserved].		
§ 63.6(h)(2)(iii)	Using Previous Tests to Demonstrate Compliance with Opacity/VE Standards.	Criteria for when previous opacity/VE testing can be used to show compliance with this subpart.	No.
§ 63.6(h)(3)	[Reserved].		
§ 63.6(h)(4)	Notification of Opacity/VE Observation Date.	Must notify Administrator of anticipated date of observation.	No.
§ 63.6(h)(5)(i), (iii)–(v)	Conducting Opacity/VE Observations.	Dates and schedule for conducting opacity/VE observations.	No.
§ 63.6(h)(5)(ii)	Opacity Test Duration and Averaging Times.	Must have at least 3 hours of observation with thirty 6-minute averages.	No.
§ 63.6(h)(6)	Records of Conditions During Opacity/VE Observations.	Must keep records available and allow Administrator to inspect.	No.
§ 63.6(h)(7)(i)	Report Continuous Opacity Monitoring System (COMS) Monitoring Data from Performance Test.	Must submit COMS data with other performance test data.	No.
§ 63.6(h)(7)(ii)	Using COMS Instead of EPA Method 9.	Can submit COMS data instead of EPA Method 9 results even if rule requires EPA Method 9 in appendix A of part 60 of this chapter, but must notify Administrator before performance test.	No.
§ 63.6(h)(7)(iii)	Averaging Time for COMS During Performance Test.	To determine compliance, must reduce COMS data to 6-minute averages.	No.

TABLE 12 TO SUBPART EEEE OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART EEEE—Continued

Citation	Subject	Brief description	Applies to subpart EEEE
§ 63.6(h)(7)(iv)	COMS Requirements	Owner/operator must demonstrate that COMS performance evaluations are conducted according to § 63.8(e); COMS are properly maintained and operated according to § 63.8(c) and data quality as § 63.8(d).	No.
§ 63.6(h)(7)(v)	Determining Compliance with Opacity/VE Standards.	COMS is probable but not conclusive evidence of compliance with opacity standards, even if EPA Method 9 observation shows otherwise. Requirements for COMS to be probable evidence-proper maintenance, meeting Performance Specification 1 in appendix B of part 60 of this chapter, and data have not been altered.	No.
§ 63.6(h)(8)	Determining Compliance with Opacity/VE Standards.	Administrator will use all COMS, EPA Method 9 (in appendix A of part 60 of this chapter), and EPA Method 22 (in appendix A of part 60 of this chapter) results, as well as information about operation and maintenance to determine compliance.	Yes.
§ 63.6(h)(9)	Adjusted Opacity Standard	Procedures for Administrator to adjust an opacity standard.	Yes.
§ 63.6(i)(1)–(14)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension.	Yes.
§ 63.6(j)	Presidential Compliance Exemption.	President may exempt any source from requirement to comply with this subpart.	Yes.
§ 63.7(a)(2)	Performance Test Dates	Dates for conducting initial performance testing; must conduct 180 days after compliance date.	Yes.
§ 63.7(a)(3)	Section 114 Authority	Adminsitrator may require a performance test under CAA section 114 at any time.	Yes.
§ 63.7(b)(1)	Notification of Performance Test.	Must notify Administrator 60 days before the test	Yes.
§ 63.7(b)(2)	Notification of Rescheduling	If you have to reschedule performance test, must notify Administrator of rescheduled date as soon as practicable and without delay.	Yes.
§ 63.7(c)	Quality Assurance (QA)/ Test Plan.	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with; test plan approval procedures; performance audit requirements; internal and external QA procedures for testing.	Yes.
§ 63.7(d)	Testing Facilities	Requirements for testing facilities	Yes.
§ 63.7(e)(1)	Conditions for Conducting Performance Tests.	Performance tests must be conducted under representative conditions; cannot conduct performance tests during SSM.	Yes.
§ 63.7(e)(2)	Conditions for Conducting Performance Tests.	Must conduct according to this subpart and EPA test methods unless Administrator approves alternative.	Yes.
§ 63.7(e)(3)	Test Run Duration	Must have three test runs of at least 1 hour each; compliance is based on arithmetic mean of three runs; conditions when data from an additional test run can be used.	Yes; however, for transfer racks per §§ 63.987(b)(3)(i)(A)–(B) and 63.997(e)(1)(v)(A)–(B) provide exceptions to the requirement for test runs to be at least 1 hour each.
§ 63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an intermediate or major change, or alternative to a test method.	Yes.
§ 63.7(g)	Performance Test Data Analysis.	Must include raw data in performance test report; must submit performance test data 60 days after end of test with the notification of compliance status; keep data for 5 years.	Yes.
§ 63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test	Yes.
§ 63.8(a)(1)	Applicability of Monitoring Requirements.	Subject to all monitoring requirements in standard	Yes.
§ 63.8(a)(2)	Performance Specifications	Performance Specifications in appendix B of 40 CFR part 60 apply.	Yes.
§ 63.8(a)(3)	[Reserved].		
§ 63.8(a)(4)	Monitoring of Flares	Monitoring requirements for flares in § 63.11	Yes; however, monitoring requirements in § 63.987(c) also apply.
§ 63.8(b)(1)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative.	Yes.

TABLE 12 TO SUBPART EEEE OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART EEEE—Continued

Citation	Subject	Brief description	Applies to subpart EEEE
§ 63.8(b)(2)–(3)	Multiple Effluents and Multiple Monitoring Systems.	Specific requirements for installing monitoring systems; must install on each affected source or after combined with another affected source before it is released to the atmosphere provided the monitoring is sufficient to demonstrate compliance with the standard; if more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup.	Yes.
§ 63.8(c)(1)	Monitoring System Operation and Maintenance.	Maintain monitoring system in a manner consistent with good air pollution control practices.	Yes.
§ 63.8(c)(1)(i)–(iii)	Routine and Predictable SSM.	Follow the SSM plan for routine repairs; keep parts for routine repairs readily available; reporting requirements for SSM when action is described in SSM plan.	Yes.
§ 63.8(c)(2)–(3)	Monitoring System Installation.	Must install to get representative emission or parameter measurements; must verify operational status before or at performance test.	Yes.
§ 63.8(c)(4)	CMS Requirements	CMS must be operating except during breakdown, out-of control, repair, maintenance, and high-level calibration drifts; COMS must have a minimum of one cycle of sampling and analysis for each successive 10-second period and one cycle of data recording for each successive 6-minute period; CEMS must have a minimum of one cycle of operation for each successive 15-minute period.	Yes; however, COMS are not applicable.
§ 63.8(c)(5)	COMS Minimum Procedures.	COMS minimum procedures	No.
§ 63.8(c)(6)–(8)	CMS Requirements	Zero and high level calibration check requirements. Out-of-control periods.	Yes.
§ 63.8(d)	CMS Quality Control	Requirements for CMS quality control, including calibration, etc.; must keep quality control plan on record for 5 years; keep old versions for 5 years after revisions.	Yes.
§ 63.8(e)	CMS Performance Evaluation.	Notification, performance evaluation test plan, reports	Yes.
§ 63.8(f)(1)–(5)	Alternative Monitoring Method.	Procedures for Administrator to approve alternative monitoring.	Yes.
§ 63.8(f)(6)	Alternative to Relative Accuracy Test.	Procedures for Administrator to approve alternative relative accuracy tests for CEMS.	Yes.
§ 63.8(g)	Data Reduction	COMS 6-minute averages calculated over at least 36 evenly spaced data points; CEMS 1 hour averages computed over at least 4 equally spaced data points; data that cannot be used in average.	Yes; however, COMS are not applicable.
§ 63.9(a)	Notification Requirements	Applicability and State delegation	Yes.
§ 63.9(b)(1)–(2), (4)–(5)	Initial Notifications	Submit notification within 120 days after effective date; notification of intent to construct/reconstruct, notification of commencement of construction/reconstruction, notification of startup; contents of each.	Yes.
§ 63.9(c)	Request for Compliance Extension.	Can request if cannot comply by date or if installed best available control technology or lowest achievable emission rate (BACT/LAER).	Yes.
§ 63.9(d)	Notification of Special Compliance Requirements for New Sources.	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date.	Yes.
§ 63.9(e)	Notification of Performance Test.	Notify Administrator 60 days prior	Yes.
§ 63.9(f)	Notification of VE/Opacity Test.	Notify Administrator 30 days prior	No.
§ 63.9(g)	Additional Notifications When Using CMS.	Notification of performance evaluation; notification about use of COMS data; notification that exceeded criterion for relative accuracy alternative.	Yes; however, there are no opacity standards.
§ 63.9(h)(1)–(6)	Notification of Compliance Status.	Contents due 60 days after end of performance test or other compliance demonstration, except for opacity/VE, which are due 30 days after; when to submit to Federal vs. State authority.	Yes; however, there are no opacity standards.
§ 63.9(i)	Adjustment of Submittal Deadlines.	Procedures for Administrator to approve change in when notifications must be submitted.	Yes.
§ 63.9(j)	Change in Previous Information.	Must submit within 15 days after the change	Yes.
§ 63.10(a)	Recordkeeping/Reporting	Applies to all, unless compliance extension; when to submit to Federal vs. State authority; procedures for owners of more than one source.	Yes.

TABLE 12 TO SUBPART EEEE OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART EEEE—Continued

Citation	Subject	Brief description	Applies to subpart EEEE
§ 63.10(b)(1)	Recordkeeping/Reporting	General requirements; keep all records readily available; keep for 5 years.	Yes.
§ 63.10(b)(2)(i)–(iv)	Records Related to Startup, Shutdown, and Malfunction.	Occurrence of each for operations (process equipment); occurrence of each malfunction of air pollution control equipment; maintenance on air pollution control equipment; actions during SSM.	Yes.
§ 63.10(b)(2)(vi)–(xi)	CMS Records	Malfunctions, inoperative, out-of-control periods	Yes.
§ 63.10(b)(2)(xii)	Records	Records when under waiver	Yes.
§ 63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test	Yes.
§ 63.10(b)(2)(xiv)	Records	All documentation supporting initial notification and notification of compliance status.	Yes.
§ 63.10(b)(3)	Records	Applicability determinations	Yes.
§ 63.10(c)	Records	Additional records for CMS	Yes.
§ 63.10(d)(1)	General Reporting Requirements.	Requirement to report	Yes.
§ 63.10(d)(2)	Report of Performance Test Results.	When to submit to Federal or State authority	Yes.
§ 63.10(d)(3)	Reporting Opacity or VE Observations.	What to report and when	Yes.
§ 63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension.	Yes.
§ 63.10(d)(5)	SSM Reports	Contents and submission	Yes.
§ 63.10(e)(1)–(2)	Additional CMS Reports	Must report results for each CEMS on a unit; written copy of CMS performance evaluation; 2–3 copies of COMS performance evaluation.	Yes; however, COMS are not applicable.
§ 63.10(e)(3)(i)–(iii)	Reports	Schedule for reporting excess emissions and parameter monitor exceedance (now defined as deviations).	Yes; however, note that the title of the report is the compliance report; deviations include excess emissions and parameter exceedances.
§ 63.10(e)(3)(iv)–(v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§ 63.8(c)(7)–(8) and 63.10(c)(5)–(13).	Yes.
§ 63.10(e)(3)(vi)–(viii)	Excess Emissions Report and Summary Report.	Requirements for reporting excess emissions for CMS (now called deviations); requires all of the information in §§ 63.10(c)(5)–(13) and 63.8(c)(7)–(8).	Yes.
§ 63.10(e)(4)	Reporting COMS Data	Must submit COMS data with performance test data	No.
§ 63.10(f)	Waiver for Recordkeeping/Reporting.	Procedures for Administrator to waive	Yes.
§ 63.11(b)	Flares	Requirements for flares	Yes; § 63.987 requirements apply, and the section references § 63.11(b).
§ 63.12	Delegation	State authority to enforce standards	Yes.
§ 63.13	Addresses	Addresses where reports, notifications, and requests are sent.	Yes.
§ 63.14	Incorporation by Reference	Test methods incorporated by reference	Yes.
§ 63.15	Availability of Information	Public and confidential information	Yes.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

48 CFR Parts 1804 and 1852

Conformance with Federal Acquisition Circular 2001–16

AGENCY: National Aeronautics and Space Administration.

ACTION: Final rule.

SUMMARY: This final rule revises the NASA FAR Supplement (NFS) by removing NASA specific coverage of Central Contractor Registration (CCR) which is no longer necessary as a result of CCR requirements established in the Federal Acquisition Regulation (FAR) by Federal Acquisition Circular (FAC) 2001–16.

EFFECTIVE DATE: February 3, 2004.

FOR FURTHER INFORMATION CONTACT: Celeste Dalton, NASA, Office of Procurement, Contract Management Division (Code HK); (202) 358–1645; e-mail: *Celeste.M.Dalton@nasa.gov*.

SUPPLEMENTARY INFORMATION:

A. Background

Item I of FAC 2001–16 revised the FAR to require registration of contractors in the Central Contractor Registration (CCR) database prior to award of any contract, basic agreement, basic ordering agreement, or blanket purchase agreement. As a result, NASA's specific coverage of CCR is no longer required. This final rule removes Subpart 1804.74—Central Contractor Registration and its associated clause at 1852.204–74.

This is not a significant regulatory action and, therefore, was not subject to review under section 6(b) of Executive Order 12866, Regulatory Planning and Review, dated September 30, 1993. This final rule is not a major rule under 5 U.S.C. 804.

B. Regulatory Flexibility Act

This final rule does not constitute a significant revision within the meaning of FAR 1.501 and Public Law 98–577, and publication for public comment is not required. However, NASA will consider comments from small entities concerning the affected NFS Parts 1804 and 1852 in accordance with 5 U.S.C. 610.

C. Paperwork Reduction Act

The Paperwork Reduction Act does not apply because the changes do not impose recordkeeping or information collection requirements which require the approval of the Office of Management and Budget under 44 U.S.C. 3501, *et seq.*

List of Subjects in 48 CFR Parts 1804 and 1852

Government Procurement.

Tom Luedtke,

Assistant Administrator for Procurement.

■ Accordingly, 48 CFR parts 1804 and 1852 are amended as follows:

■ 1. The authority citation for 48 CFR parts 1804 and 1852 continues to read as follows:

Authority: 42 U.S.C. 2473(c)(1).

PART 1804—ADMINISTRATIVE MATTERS

■ 2. Remove Subpart 1804.74.

PART 1852—SOLICITATION PROVISIONS AND CONTRACT CLAUSES

■ 3. Remove section 1852.204–74.

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Federal Register

Friday,
March 5, 2004

Part II

Environmental Protection Agency

40 CFR Part 63
National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[OAR–2002–0060; FRL–7554–2]

RIN 2060–AG–67

National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national emission standards for hazardous air pollutants (NESHAP) for stationary combustion turbines. We have identified stationary combustion turbines as major sources of hazardous air pollutants (HAP) emissions such as formaldehyde, toluene, benzene, and acetaldehyde. The NESHAP will implement section 112(d) of the Clean Air Act (CAA) by requiring all major sources to meet HAP emission standards reflecting the application of the maximum achievable control technology (MACT) for combustion turbines. In the final NESHAP, we have divided the stationary combustion turbine category into eight subcategories, including lean premix gas-fired turbines, lean premix oil-fired turbines, diffusion flame gas-fired turbines, diffusion flame oil-fired turbines, emergency turbines, turbines with a rated peak power output of less than 1.0 megawatt (MW), turbines burning landfill or digester gas, and turbines located on the North Slope of Alaska. We have also adopted a final emission standard requiring control of formaldehyde emissions for all new or reconstructed stationary combustion turbines in the four lean premix and diffusion flame subcategories. We estimate that 20 percent of the stationary combustion turbines affected by the final rule will be located at major sources. As a result, the environmental, energy, and economic impacts presented in this preamble reflect these estimates. The final rule will protect public health by reducing exposure to air pollution, by reducing total national HAP emissions by an estimated 98 tons per year (tpy) in the 5th year after the rule is promulgated.

EFFECTIVE DATE: March 5, 2004.

ADDRESSES: *Docket.* Docket ID No. OAR–2002–0060 (paper docket No. A–95–51) contains supporting information used in developing the standards. The docket is located at the U.S. EPA, 1301 Constitution Avenue, NW., Washington, DC 20460 in room B102, and may be inspected from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays.

FOR FURTHER INFORMATION CONTACT: For further information concerning applicability and rule determinations, contact the appropriate State or local agency representative. For information concerning the analyses performed in developing the NESHAP, contact Mr. Sims Roy, Combustion Group, Emission Standards Division (MD-C439–01), U.S. EPA, Research Triangle Park, North Carolina 27711; telephone number (919) 541–5263; facsimile number (919) 541–5450; electronic mail address "*roy.sims@epa.gov.*"

SUPPLEMENTARY INFORMATION: *Regulated Entities.* Categories and entities potentially regulated by this action include:

Category	SIC	NAICS	Examples of regulated entities
Any industry using a stationary combustion turbine as defined in the regulation.	4911	2211	Electric power generation, transmission, or distribution
	4922	486210	Natural gas transmission
	1311	211111	Crude petroleum and natural gas production
	1321	211112	Natural gas liquids producers
	4931	221	Electric and other services combined

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your facility is regulated by this action, you should examine the applicability criteria in § 63.6085 of the final rule. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Docket. The EPA has established an official public docket for this action under Docket ID No. OAR–2002–0060 (A–95–51). The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the Air and Radiation Docket in the EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC 20460. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566–1744, and the telephone number for the Air and Radiation Docket is (202) 566–1742. A reasonable fee may be charged for copying docket materials.

Electronic Access. You may access this **Federal Register** document electronically through the EPA Internet under the "**Federal Register**" listings at *http://www.epa.gov/fedrgstr/.*

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility identified above. Once in the system, select "search," then key in the appropriate docket identification number.

Judicial Review. Under section 307(b)(1) of the CAA, judicial review of the final NESHAP is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by May 4, 2004. Under section 307(d)(7)(B) of the CAA, only an objection to a rule or procedure raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under section 307(b)(2) of the CAA, the requirements established by the final rule may not be challenged separately in any civil or criminal proceeding brought to enforce these requirements.

Background Information Document. The EPA proposed the NESHAP for stationary combustion turbines on January 14, 2003 (68 FR 1888), and

received 75 comment letters on the proposal. A background information document (BID) ("National Emission Standards for Stationary Combustion Turbines, Summary of Public Comments and Responses,") containing EPA's responses to each public comment is available in Docket ID No. OAR–2002–0060 (A–95–51).

Outline. The information presented in this preamble is organized as follows:

I. Background
A. What is the Source of Authority for Development of NESHAP?
B. What Criteria are Used in the Development of NESHAP?
C. What are the Health Effects Associated with HAP from Stationary Combustion Turbines?
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F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments
G. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks
H. Executive Order 13211: Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use
I. National Technology Transfer and Advancement Act
J. Congressional Review Act

I. Background

A. What is the Source of Authority for Development of NESHAP?

Section 112 of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. The stationary turbine source category was listed on July 16, 1992 (57 FR 31576). Major sources of HAP are those that have the potential to emit greater than 10 tpy of any one HAP or 25 tpy of any combination of HAP.

B. What Criteria are Used in the Development of NESHAP?

Section 112 of the CAA requires that we establish NESHAP for the control of HAP from both new and existing major sources. The CAA requires the NESHAP to reflect the maximum degree of reduction in emissions of HAP that is achievable. This level of control is commonly referred to as the MACT.

The MACT floor is the minimum control level allowed for NESHAP and is defined under section 112(d)(3) of the CAA. In essence, the MACT floor ensures that the standard is set at a level that assures that all major sources achieve the level of control at least as stringent as that already achieved by the better controlled and lower emitting sources in each source category or subcategory. For new sources, the MACT standards cannot be less stringent than the emission control that is achieved in practice by the best controlled similar source. The MACT standards for existing sources can be less stringent than standards for new sources, but they cannot be less stringent than the average emission limitation achieved by the best performing 12 percent of existing sources in the category or subcategory (or the best performing five sources for categories or subcategories with fewer than 30 sources).

In developing MACT, we also consider control options that are more stringent than the floor. We may establish standards more stringent than the floor based on the consideration of cost of achieving the emissions reductions, any non-air quality health and environmental impacts, and energy requirements.

C. What are the Health Effects Associated with HAP from Stationary Combustion Turbines?

Emission data collected during development of the NESHAP show that several HAP are emitted from stationary combustion turbines. These HAP emissions are formed during combustion or result from HAP compounds contained in the fuel burned.

Among the HAP which have been measured in emission tests that were conducted at natural gas fired and distillate oil fired combustion turbines are: 1,3 butadiene, acetaldehyde, acrolein, benzene, ethylbenzene, formaldehyde, naphthalene, poly aromatic hydrocarbons (PAH) propylene oxide, toluene, and xylenes. Metallic HAP from distillate oil fired stationary combustion turbines that have been measured are: arsenic, beryllium, cadmium, chromium, lead, manganese, mercury, nickel, and selenium. Natural gas fired stationary combustion turbines do not emit metallic HAP.

Although numerous HAP may be emitted from combustion turbines, only a few account for essentially all the mass of HAP emissions from stationary combustion turbines. These HAP are: formaldehyde, toluene, benzene, and acetaldehyde.

The HAP emitted in the largest quantity is formaldehyde. Formaldehyde is a probable human carcinogen and can cause irritation of the eyes and respiratory tract, coughing, dry throat, tightening of the chest, headache, and heart palpitations. Acute inhalation has caused bronchitis, pulmonary edema, pneumonitis, pneumonia, and death due to respiratory failure. Long-term exposure can cause dermatitis and sensitization of the skin and respiratory tract.

Other HAP emitted in significant quantities from stationary combustion turbines include toluene, benzene, and acetaldehyde. The health effect of primary concern for toluene is dysfunction of the central nervous system (CNS). Toluene vapor also

causes narcosis. Controlled exposure of human subjects produced mild fatigue, weakness, confusion, lacrimation, and paresthesia; at higher exposure levels there were also euphoria, headache, dizziness, dilated pupils, and nausea. After-effects included nervousness, muscular fatigue, and insomnia persisting for several days. Acute exposure may cause irritation of the eyes, respiratory tract, and skin. It may also cause fatigue, weakness, confusion, headache, and drowsiness. Very high concentrations may cause unconsciousness and death.

Benzene is a known human carcinogen. The health effects of benzene include nerve inflammation, CNS depression, and cardiac sensitization. Chronic exposure to benzene can cause fatigue, nervousness, irritability, blurred vision, and labored breathing and has produced anorexia and irreversible injury to the blood-forming organs; effects include aplastic anemia and leukemia. Acute exposure can cause dizziness, euphoria, giddiness, headache, nausea, staggering gait, weakness, drowsiness, respiratory irritation, pulmonary edema, pneumonia, gastrointestinal irritation, convulsions, and paralysis. Benzene can also cause irritation to the skin, eyes, and mucous membranes.

Acetaldehyde is a probable human carcinogen. The health effects for acetaldehyde are irritation of the eyes, mucous membranes, skin, and upper respiratory tract, and it is a CNS depressant in humans. Chronic exposure can cause conjunctivitis, coughing, difficult breathing, and dermatitis. Chronic exposure may cause heart and kidney damage, embryotoxicity, and teratogenic effects.

We do not have the type of current detailed data on each of the facilities covered by the final rule and the people living around the facilities that would be necessary to conduct an analysis to determine the actual population exposures to the HAP emitted from these facilities and potential for resultant health effects. Therefore, we do not know the extent to which the adverse health effects described above occur in the populations surrounding these facilities. However, to the extent the adverse effects do occur, the final rule will reduce emissions and subsequent exposures.

D. What is the Regulatory Development Background of the Source Category?

In September 1996, we chartered the Industrial Combustion Coordinated Rulemaking (ICCR) advisory committee under the Federal Advisory Committee Act (FACA). The committee's objective was to develop recommendations for regulations for several combustion source categories under sections 112 and 129 of the CAA. The ICCR advisory committee, also known as the Coordinating Committee, formed Source Work Groups for the various combustor types covered under the ICCR. One work group, the Combustion Turbine Work Group, was formed to research issues related to stationary combustion turbines. The Combustion Turbine Work Group submitted recommendations, information, and data analyses to the Coordinating Committee, which in turn considered them and submitted recommendations and information to us. The Committee's 2-year charter expired in September 1998. We considered the Committee's recommendations in developing the final rule for stationary combustion turbines.

We have received a petition from the Gas Turbine Association (GTA) requesting that we delist certain subcategories of combustion turbines. We have been working with GTA to improve and supplement the data supporting this petition. Once a final determination has been made concerning the delisting petition, we will promptly make any conforming amendments to the Stationary Combustion Turbine NESHAP which are warranted.

II. Summary of the Final Rule

A. What Sources are Subject to the Final Rule?

The final rule applies to you if you own or operate a stationary combustion turbine which is located at a major source of HAP emissions. A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tpy (9.07 megagrams per year (Mg/yr)) or more or any combination of HAP at a rate of 25 tpy (22.68 Mg/yr) or more.

Section 112(n)(4) of the CAA requires that the aggregation of HAP for purposes of determining whether an oil and gas production facility is major or nonmajor be done only with respect to particular sites within the source and not on a total aggregated site basis. We referenced the requirements of section 112(n)(4) of the CAA in our NESHAP for Oil and Natural Gas Production Facilities in subpart HH of 40 CFR part 63. As in subpart HH, we plan to aggregate HAP emissions for the purposes of determining a major HAP source for turbines only with respect to particular sites within an oil and gas production facility. The sites are called surface sites and may include a combination of any of the following equipment: glycol dehydrators, tanks which have potential for flash emissions, reciprocating internal combustion engines, and combustion turbines.

The EPA acknowledges that the definition of major source in the final rule may be different from those found in other rules, however, this does not alter the definition of major source in other rules and, therefore, does not affect the Oil and Natural Gas Production Facilities NESHAP (subpart HH of 40 CFR part 63) or any other rule applicability.

Eight subcategories have been defined within the stationary combustion turbine source category. While all stationary combustion turbines are subject to the final rule, each subcategory has distinct requirements. For example, existing combustion turbines and stationary combustion turbines with a rated peak power output of less than 1.0 MW (at International Organization for Standardization (ISO) standard day conditions) are not required to comply with emission limitations, recordkeeping or reporting requirements in the final rule. New or reconstructed combustion turbines must comply with emission limitations, recordkeeping and reporting requirements in the final rule. You must determine your source's subcategory to determine which requirements apply to your source.

The final rule does not apply to stationary combustion turbines located at an area source of HAP emissions. An area source of HAP emissions is a contiguous site under common control that is not a major source.

Stationary combustion turbines located at research or laboratory facilities are not subject to the final rule if research is conducted on the turbine itself and the turbine is not being used to power other applications at the research or laboratory facility.

The final rule does not cover duct burners. They are part of the waste heat recovery unit in a combined cycle system. Waste heat recovery units, whether part of a cogeneration system or a combined cycle system, are steam generating units and are not covered by the final rule.

Finally, the final rule does not apply to stationary combustion engine test cells/stands since these facilities are already covered by another NESHAP, 40 CFR part 63, subpart PPPPP.

B. What Source Categories and Subcategories are Affected by the Final Rule?

The final rule covers stationary combustion turbines. A stationary combustion turbine includes all equipment including, but not limited to, the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and subcomponents comprising any simple cycle stationary combustion turbine, any regenerative/recuperative cycle stationary combustion turbine, or the combustion turbine portion of any stationary combined cycle steam/electric generating system. Stationary means that the combustion turbine is not self-propelled or intended to be propelled while performing its function. A stationary combustion turbine may, however, be mounted on a vehicle for portability or transportability.

Stationary combustion turbines have been divided into the following eight subcategories: (1) Emergency stationary combustion turbines, (2) stationary combustion turbines which burn landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis or where gasified MSW is used to generate 10 percent or more of the gross heat input to the stationary combustion turbine on an annual basis, (3) stationary combustion turbines of less than 1 MW rated peak power output, (4) stationary lean premix combustion turbines when firing gas and when firing oil at sites where all turbines fire oil no more than 1000 hours annually (also referred to herein as "lean premix gas-fired turbines"), (5) stationary lean premix combustion turbines when firing oil at sites where all turbines fire oil more than 1000 hours annually (also referred to herein as "lean premix oil-fired turbines"), (6) stationary diffusion flame combustion turbines when firing gas and when firing oil at sites where all turbines fire oil no more than 1000 hours annually (also referred to herein as "diffusion flame gas-fired turbines"), (7) stationary diffusion flame combustion turbines when firing oil at sites where all turbines fire oil more than 1000 hours annually (also referred to herein as "diffusion flame oil-fired turbines"), and (8) stationary combustion turbines operated on the North Slope of Alaska (defined as the area north of the Arctic Circle (latitude 66.5° North)).

Emergency stationary combustion turbine means any stationary combustion turbine that operates in an emergency situation. Examples include stationary combustion turbines used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility is interrupted, or stationary combustion turbines used to pump water in the case of fire or flood, etc. Emergency stationary combustion turbines do not include stationary combustion turbines used as peaking units at electric utilities or stationary combustion turbines at industrial facilities that typically operate at low capacity factors. Emergency stationary combustion turbines may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are required by the manufacturer, the vendor, or the insurance company associated with the turbine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary sources.

Stationary combustion turbines which burn landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis or stationary combustion turbines where gasified MSW is used to generate 10 percent or more of the gross heat input to the stationary combustion turbine on an annual basis qualify as a separate subcategory because the types of control available for these turbines are limited.

Stationary combustion turbines of less than 1 MW rated peak power output were also identified as a subcategory. These small stationary combustion turbines are few in number and, to our knowledge, none use emission control technology to reduce HAP. Therefore, it would be inappropriate to require HAP emission controls to be applied to them without further information on control technology performance.

Two subcategories of stationary lean premix combustion turbines were established: stationary lean premix combustion turbines when firing gas and when firing oil at sites where all turbines fire oil no more than 1000 hours annually (also referred to as "lean premix gas-fired turbines"), and stationary lean premix combustion turbines when firing oil at sites where all turbines fire oil more than 1000 hours annually (also referred to as "lean premix oil-fired turbines"). Lean premix technology, introduced in the 1990's, was developed to reduce nitrogen oxide (NO_X) emissions without the use of add-on controls. In a lean premix combustor, the air and fuel are thoroughly mixed to form a lean mixture for combustion. Mixing may occur before or in the combustion chamber. Lean premix combustors emit lower levels of NO_X, carbon monoxide (CO), formaldehyde and other HAP than diffusion flame combustion turbines.

Two subcategories of stationary diffusion flame combustion turbines were established: stationary diffusion flame combustion turbines when firing gas and when firing oil at sites where all turbines fire oil no more than 1000 hours annually (also referred to as "diffusion flame gas-fired turbines"), and stationary diffusion flame combustion turbines when firing oil at sites where all turbines fire oil more than 1000 hours annually (also referred to as "diffusion flame oil-fired turbines"). In a diffusion flame combustor, the fuel and air are injected at the combustor and are mixed only by diffusion prior to ignition. Hazardous air pollutant emissions from these turbines can be significantly decreased with the addition of air pollution control equipment.

Stationary combustion turbines located on the North Slope of Alaska have been identified as a subcategory due to operating limitations and uncertainties regarding the application of controls to these units. There are very few of these units, and none have installed emission controls for the reduction of HAP.

C. What are the Primary Sources of HAP Emissions and What are the Emissions?

Combustion turbines are acknowledged as the cleanest and most efficient method of producing electrical power. The sources of emissions are the exhaust gases from combustion of gaseous and liquid fuels in a stationary combustion turbine. Hazardous air pollutants that are present in the exhaust gases from stationary combustion turbines include formaldehyde, toluene, benzene, and acetaldehyde.

D. What are the Emission Limitations and Operating Limitations?

As the owner or operator of a new or reconstructed lean premix gas-fired turbine, a new or reconstructed lean premix oil-fired turbine, a new or reconstructed diffusion flame gas-fired turbine, or a new or reconstructed diffusion flame oil-fired turbine, you must comply with the emission limitation to reduce the concentration of formaldehyde in the exhaust from the new or reconstructed stationary combustion turbine to 91 parts per billion by volume (ppbv) or less, dry basis (ppbvd), at 15 percent oxygen by the effective date of the standards (or upon startup if you start up your stationary combustion turbine after the effective date of the standards).

If you comply with the emission limitation for formaldehyde emissions and you use an oxidation catalyst emission control device, you must continuously monitor the oxidation catalyst inlet temperature and maintain the inlet temperature to the oxidation catalyst within the range recommended by the catalyst manufacturer.

If you comply with the emission limitation for formaldehyde emissions and you do not use an oxidation catalyst emission control device, you must petition the Administrator for approval of operating limitations or approval of no operating limitations.

E. What are the Initial Compliance Requirements?

If you operate a new or reconstructed lean premix gas-fired turbine, a new or reconstructed lean premix oil-fired turbine, a new or reconstructed diffusion flame gas-fired turbine, or a new or reconstructed diffusion flame oil-fired turbine, you must conduct an initial performance test using Test Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03 to demonstrate that the outlet concentration of formaldehyde is 91 ppbvd or less (corrected to 15 percent oxygen). To correct to 15 percent oxygen, dry basis, you must measure oxygen using Method 3A or 3B of 40 CFR part 60, appendix A, and moisture using either Method 4 of 40 CFR part 60, appendix A, Test Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03. The initial performance test must be conducted at high load conditions, defined as 100 percent ±10 percent.

If you operate a new or reconstructed stationary combustion turbine in one of the subcategories required to comply with an emission limitation and use an oxidation catalyst emission control device, you must also install a continuous parameter monitoring system (CPMS) to continuously monitor the oxidation catalyst inlet temperature.

If you operate a new or reconstructed stationary combustion turbine in one of the subcategories required to comply with an emission limitation and you do not use an oxidation catalyst emission control device, you must petition the Administrator for approval of operating limitations or approval of no operating limitations.

If you petition the Administrator for approval of operating limitations, your petition must include the following: (1) Identification of the specific parameters you propose to use as operating limitations; (2) a discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions; (3) a discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations; (4) a discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and (5) a discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

If you petition the Administrator for approval of no operating limitations, your petition must include the following: (1) Identification of the parameters associated with operation of the stationary combustion turbine and any emission control device which could change intentionally (*e.g.*, operator adjustment, automatic controller adjustment, etc.) or unintentionally (*e.g.*, wear and tear, error, etc.) on a routine basis or over time; (2) a discussion of the relationship, if any, between changes in these parameters and changes in HAP emissions; (3) for those parameters with a relationship to HAP emissions, a discussion of whether establishing limitations on these parameters would serve to limit HAP emissions; (4) for those parameters with a relationship to HAP emissions, a discussion of how you could establish upper and/or lower values for these parameters which would establish limits on these parameters in operating limitations; (5) for those parameters with a relationship to HAP emissions, a discussion identifying the methods you could use to measure these parameters and the instruments you could use to monitor them, as well as the relative accuracy and precision of these methods and instruments; (6) for these parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and, (7) a discussion of why, from your point of view, it is infeasible, unreasonable, or unnecessary to adopt these parameters as operating limitations.

F. What are the Continuous Compliance Provisions?

Several general continuous compliance requirements apply to stationary combustion turbines required to comply with the emission limitations. You are required to comply with the emission limitations and the operating limitations (if applicable) at all times, except during startup, shutdown, and malfunction of your stationary combustion turbine. You must also operate and maintain your stationary combustion turbine, air pollution control equipment, and monitoring equipment according to good air pollution control practices at all times, including startup, shutdown, and malfunction. You must conduct monitoring at all times that the stationary combustion turbine is operating, except during periods of malfunction of the monitoring equipment or necessary repairs and quality assurance or control activities, such as calibration checks.

To demonstrate continuous compliance with the emission limitations, you must conduct annual performance tests for formaldehyde. You must conduct the annual performance tests using Test Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03 to demonstrate that the outlet concentration of formaldehyde is at or below 91 ppbvd of formaldehyde (correct to 15 percent oxygen). The annual performance test must be conducted at high load conditions, defined as 100 percent ±10 percent.

If you operate a new or reconstructed stationary combustion turbine in one of the subcategories required to comply with an emission limitation and you use an oxidation catalyst emission control device, you must demonstrate continuous compliance with the operating limitations by continuously monitoring the oxidation catalyst inlet temperature. The 4-hour rolling average of the valid data must be within the range recommended by the catalyst manufacturer.

If you operate a new or reconstructed stationary combustion turbine in one of the subcategories required to comply with an emission limitation and you do not use an oxidation catalyst emission control device, you must demonstrate continuous compliance with the operating limitations by continuously monitoring parameters which have been approved by the Administrator (if any).

G. What are the Notification, Recordkeeping and Reporting Requirements?

You must submit all of the applicable notifications as listed in the NESHAP General Provisions (40 CFR part 63, subpart A), including an initial notification, notification of performance test or evaluation, and a notification of compliance, for each stationary combustion turbine which must comply with the emission limitations. If your new or reconstructed stationary

combustion turbine is located at a major source, has greater than 1 MW rated peak power output, and is an emergency stationary combustion turbine, a combustion turbine which burns landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis or where gasified MSW is used to generate 10 percent or more of the gross heat input to the stationary combustion turbine on an annual basis, or a stationary combustion turbine located on the North Slope of Alaska, you must submit only an initial notification.

For each combustion turbine in one of the subcategories which is subject to an emission limitation, you must record all of the data necessary to determine if you are in compliance with the emission limitation. Your records must be in a form suitable and readily available for review. You must also keep each record for 5 years following the date of each occurrence, measurement, maintenance, report, or record. Records must remain on site for at least 2 years and then can be maintained off site for the remaining 3 years.

III. Summary of Responses to Major Comments

A more detailed summary of comments and our responses can be found in the Summary of Public Comments and Responses document, which is available from several sources (see Addresses section).

A. Applicability

Comment: Several commenters said that the definition of affected source should be modified to be consistent with the definition found in § 63.2 of the General Provisions.

Response: Although 40 CFR 63.2 of the General Provisions provides that we will generally adopt a broad definition of affected source, which includes all emission units within each subcategory which are located within the same contiguous area, this section also provides that we may adopt a narrower definition of affected source in instances where we determine that the broader definition would "create significant administrative, practical, or implementation problems" and "the different definition would resolve those problems." This is such an instance. Because of the way that the subcategories of combustion turbines are defined, individual turbines can switch between subcategories based on the fuel they are burning. We have taken some steps in the definition of subcategories to limit the frequency of such switching between subcategories, because we believe it could create confusion and complicate compliance determinations. However, fuel specific subcategories are necessary to derive a MACT floor which appropriately considers the difference in the composition of the HAP emitted based on the fuel used. Thus, we cannot eliminate the possibility that individual turbines will switch subcategories. Use of the broader definition of affected source specified by the General Provisions would require very complex aggregate compliance determinations, because an individual turbine could be part of one affected source at one time and part of a different affected source at another time. This would require that the contribution of each turbine to total emissions for all emission units within each subcategory be adjusted to reflect the proportionate time the unit was operating within that subcategory. We believe such complicated compliance determinations to be impractical and, therefore, have decided to adopt a definition which establishes each individual combustion turbine as the affected source.

Comment: One commenter said that the final rule should be explicit as to whether the 1 MW capacity level for inclusion in the less than 1 MW rated peak power subcategory applies to an individual combustion turbine or applies to the aggregate capacity of a group of combustion turbines.

Response: We intended for the 1 MW capacity level to apply to an individual combustion turbine, not the aggregate capacity of a group of combustion turbines. This clarification has been made in the final rule.

Comment: Several commenters stated that EPA should increase the 1 MW capacity threshold. Comments received included suggestions to exclude from the rule turbines rated less than 10 MW and recommendations to create a subcategory for units with a capacity of 25 MW or less. Some commenters said that the size applicability criteria should be adjusted to be consistent with the MACT floor.

Response: Although 3 MW is the smallest size unit that is known to have add-on HAP control, we feel it is appropriate to set the cutoff for inclusion in the less than 1 MW rated peak power subcategory at 1 MW because the control technology used for 3 MW units can be transferred to units as small as 1 MW.

Comment: Many commenters recommended that EPA provide an emission threshold as an alternative applicability cutoff. Eight commenters recommended that the emission threshold should be set at less than 1 tpy of formaldehyde emissions. One commenter suggested that EPA should include a greater than 2 tpy formaldehyde applicability requirement.

Response: The basis for this comment is the Oil and Natural Gas Production and Natural Gas Transmission and Storage NESHAP (promulgated on June 17, 1999). In that rule, HAP emissions from process vents at glycol dehydration units that are located at major HAP sources and from process vents at certain area source glycol dehydration units are required to be controlled unless the actual flowrate of natural gas in the unit is less than 85,000 cubic meters per day (3.0 million standard cubic feet per day), on an annual average basis, or the benzene emissions from the unit are less than 0.9 Mg/yr (1 tpy). The 1 tpy emission threshold in the Oil and Natural Gas Production and Natural Gas Transmission and Storage MACT is equivalent to the smallest size glycol dehydration unit with control of HAP emissions and is, therefore, based on equivalence, not risk.

Comment: Multiple commenters expressed that the emission factors presented in Table 1 of the preamble should be removed, or wording should be added to acknowledge the use of factors from other sources. Three commenters said that EPA should not dictate emission factors for major source determination; owners and operators should be allowed to determine appropriate emission factors for their facility.

Response: We agree with the commenter and have not included Table 1 from the proposal preamble in the final rule. Table 1 was intended to simplify major source determination, *e.g.*, facilities would not have to develop their own emission factors. We agree that all turbines may not fit the emissions mold as projected in Table 1. The use of the emission factors in Table 1 was intended to be optional; we were not dictating the use of these emission factors.

The emission factors in Table 1 of the preamble to the proposed rule were based on emissions data from test reports that were reviewed and accepted by EPA according to a common set of acceptance criteria. However, we received several comments regarding the quality of the emissions data we used and as a result, performed an extensive review of tests used at proposal and new tests received during the comment period. As a result of that review, revised emission factors for stationary combustion turbines were calculated and are presented in a memorandum included in the rule docket (OAR–2002–0060, A–95–51). That memorandum has emission factors

for both high load and all load conditions. The emission standards in the final rule are based on data for high loads.

We believe that the emission factors presented in the memorandum provide the most accurate information on stationary combustion turbine emission factors. However, caution should be used when using data collected using California Air Resources Board (CARB) Method 430 or EPA Method 0011 in determining applicability. We have used CARB 430 and EPA Method 0011 in developing emission factors but applied a bias factor to the data to make the emissions data comparable with emissions data measured by Fourier Transform Infrared (FTIR).

Comment: Multiple commenters supported the creation of a subcategory for limited use combustion turbines with a capacity utilization of 10 percent or less. One commenter expressed the view that the limited use subcategory should apply to all limited use combustion turbines, not just electric power peak shaving units.

Three commenters supported the exemption for limited use units and EPA's finding that no emission reduction should be required for these units.

Several commenters requested that EPA increase the allowable operating time for limited use turbines. One commenter recommended that the 50-hour allowance for limited use be increased to 200 hours to allow for maintenance checks. Two commenters stated that a more appropriate cut-off is 500 hours per year, which one commenter said is consistent with EPA policy for designating emergency engines for title V permits and is also appropriate because year-to-year variability in the utilization does not result in routine changes in a unit's status. A commenter also suggested that EPA could develop a more refined approach; for example, the cutoff for turbines greater than 10 MW could be 200 hours per year.

One commenter said that if a 10 percent utilization is not implemented, the testing of combustion turbines to assure the unit will be operational when needed should be excluded from the operating limit, because these testing operations can range from weekly testing for more than 1 hour to several times each month.

Two commenters contended that the subcategorization of limited use combustion turbines without controls is not protective of public health, because these combustion turbines operate mostly in the summer months when the public is more likely to be exposed to the emissions.

Two commenters remarked that any subcategorization of limited use combustion turbines should include a permit requirement that these units operate less than 876 hours per year. To lower costs for these units, less onerous monitoring requirements such as periodic stack tests with a temperature sensor on the catalyst could be required.

One commenter expressed the view that existing limited use combustion turbines might be exempted from the MACT emission limits, but new limited use combustion turbines should not be exempted. The commenter observed that in New Jersey, limited use units generally operate for less than 250 hours per year.

Response: The preamble for the proposed rule included a subcategory for limited use stationary combustion turbines and defined them as operating 50 hours or less per calendar year. We solicited comments on creating a subcategory of limited use stationary combustion turbines with capacity utilization of 10 percent or less and used for electric power peak shaving. After considering all of the comments, we decided not to include a subcategory for limited use stationary combustion turbines in the final rule. A subcategory of limited use stationary combustion turbines with capacity utilization of 10 percent or less and used for electric power peak shaving was not created because these sources are similar sources to units equipped with add-on oxidation catalyst control, and their operation only during peak periods does not preclude them from being equipped with add-on oxidation catalyst control. In response to the comment regarding subcategorization of limited use combustion turbines not being protective of public health, our objective in subcategorizing is not to protect public health, but to establish groups of sources which share common characteristics that are related to the availability of potential emission control strategies. In any case, we have not adopted a limited use subcategory, because we determined that creation of such subcategory would not change the nature of the required controls.

Comment: Two commenters recommended that to be consistent with most other NESHAP, EPA should add an exemption for research and development to the final rule.

Response: We agree that stationary combustion turbines located at a research or laboratory facility should not be subject to the NESHAP if research is conducted on the turbine itself and the turbine is not being used to power other applications at the research or laboratory facility. A definition of research or laboratory facility is included in the final rule.

Comment: One commenter remarked that primary fuel is not defined in the rule. The commenter noted that applying the exemption only to turbines using landfill or digester gas as primary fuel is overly restrictive. The commenter suggested that the exemption should be for turbines with annual landfill and digester gas consumption of 10 percent or more of the total fuel consumption on an annual basis based on gross heat input. Other commenters requested that the exemption for firing landfill or digester gas be expanded to include combustion turbines used at gasification plants.

Response: We agree that it is appropriate to provide guidelines for the usage of landfill and digester gas. We have written the final rule to define turbines in the landfill and digester gas subcategory as those which burn landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. In the final rule, the subcategory for combustion turbines firing landfill or digester gas has been expanded to include units where gasified MSW is used to generate 10 percent or more of the gross heat input to the turbine on an annual basis. We have specified in the final rule that new turbines in this subcategory must daily monitor their fuel usage with a separate fuel meter to measure the volume flow rate of each fuel. Finally, the final rule requires new combustion turbines in this subcategory to submit annual reports documenting the fuel flow rate of each fuel and the heating values used to calculate and demonstrate that the percentage of heat input provided by landfill, digester gas, or gasified MSW is equivalent to 10 percent or more of the total fuel consumption on an annual basis based on gross heat input.

Comment: Several commenters urged EPA to add a subcategory to cover turbines installed north of the Arctic Circle (North Slope) and to specify no additional control requirements for the subcategory. The commenters stated that technologies identified for controlling HAP emissions from stationary combustion turbines are unproven or have met with limited success in northern Alaska above the Arctic Circle. Lean premix combustion turbines have met with limited success on the Alaska's North Slope. The annual average temperature above the Arctic Circle is approximately 10°F, with winter temperatures that can drop below −50°F. Turbine manufacturers have been required to "de-tune" the

lean premix turbines to ensure the integrity of the equipment at these cold ambient temperatures.

One of the technical issues with lean premix operation at the North Slope is the very wide range of ambient temperatures over which the turbine must operate. A range of −50°F to 80°F (130°F range) is a very challenging requirement for turbine manufacturers. They have to employ various air bleed, inlet guide vane control, or fuel staging to allow them to operate at the cold extremes. Sites in Canada have reported having to tune their lean premix engines differently for the summer and winter months. Even when temperatures drop to extremely low levels in the lower 48 states, the duration of those low temperatures is normally measured in hours; on the North Slope it is not uncommon for equipment to have to endure months of severe cold. In addition to this large range, at the colder end of the range the airflow on some turbine models can be 40 percent higher than at the standard ISO design conditions of 60°F, creating an especially acute problem in lean premix units. Turbine manufacturers with experience in the Arctic do not guarantee NO_X and CO levels at cold ambient temperatures (below 0°F). Therefore, lean premix turbines that can achieve low NO_X emissions typical of the lower 48 states' applications have not been demonstrated to be achievable north of the Arctic Circle. On the North Slope, less than 0°F represents about one-half of the year.

According to the commenters, vendors of CO oxidation catalysts have indicated that their products will perform adequately on the North Slope, but the technology has never been tried. To date, no CO oxidation catalyst has ever been installed on a turbine on the North Slope. It is unknown what impacts the extreme thermal conditions of North Slope operation will have on CO oxidation catalysts.

Response: We agree with the commenters that a subcategory should be created for turbines installed north of the Arctic Circle to recognize their distinct differences. There is a substantial difference in temperature between the North Slope of Alaska and even the coldest areas in the lower 48 states. As noted by the commenters, turbine operators on the North Slope of Alaska have experienced problems with operation of the turbines in lean premix mode, and turbine manufacturers do not guarantee the performance of their turbines at the ambient temperatures typically found north of the Arctic Circle. In addition, no turbines on the North Slope of Alaska are equipped with oxidation catalyst control. Therefore, a subcategory for turbines north of the Arctic Circle has been established. The North Slope of Alaska is defined as above the Arctic Circle (latitude 66.5° North). Stationary combustion turbines operated on the North Slope of Alaska are not required to meet the emission limitations. However, new or reconstructed stationary combustion turbines operated on the North Slope of Alaska must submit an initial notification.

Comment: Two commenters expressed the view that the routine exchange of aeroderivative turbines for routine overhaul should not result in a facility becoming a new source. One commenter stated that EPA should provide an exemption for temporary replacement engines during routine rebuilds, and a mechanism to reduce the likelihood a source would suddenly trigger new source preconstruction review/approval and MACT requirements arising from an unexpected repair or replacement of a stationary combustion turbine.

Response: The definition of reconstructed turbine in the proposed rule is consistent with the General Provisions of 40 CFR part 63. If an existing combustion turbine is refurbished to the extent that it meets the definition of reconstruction, then it should be considered a reconstructed source. We are not aware of any routine refurbishment for which the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source.

B. Definitions

Comment: One commenter requested that the definition of lean premix stationary combustion turbine be modified to recognize that fuel and air mixing may be occurring in the combustor of some lean premix combustion turbines. The definition should be modified to include these types of stationary combustion turbines that burn a lean mixture and thoroughly mix their fuel prior to combustion in the combustor.

Response: We have written the definition of lean premix in the final rule to recognize that fuel and air mixing may be occurring in the combustor of some lean premix combustion turbines.

Comment: Several commenters said that the definition of emergency stationary combustion turbine should include operational allowances for the periodic operation/testing to verify operational readiness. One commenter requested that the definition be clarified, or extended to allow for operations in anticipation of an emergency situation. Four commenters asked for clarification as to whether loss of power that constitutes an emergency is limited to power supplied to the facility as a whole or includes power supplied to portions of a facility.

Response: We agree with the commenters who stated that readiness testing should be included in the definition of emergency operation. Accordingly, we have written the definition of emergency stationary combustion turbine to include allowances for readiness testing in the final rule. The routine testing and maintenance must be within limits recommended by the turbine manufacturer or other entity such as an insurance company. However, we disagree with the commenter who requested the definition to include operations in anticipation of an emergency situation. Exempt operations will be limited to emergency situations only. We agree that loss of power can include power supplied to portions of a facility, and we have, therefore, written the definition of stationary emergency combustion turbine in the final rule to make this clear.

Comment: Several commenters recommended that the definition of "stationary combustion turbine" include all appropriate associated equipment.

Response: We agree with the commenters' suggestions and have written the definition of stationary combustion turbines in the final rule to reflect appropriate comments. The definition of a stationary combustion turbine does not include emissions control equipment.

Comment: One commenter expressed support for the definition of major source except that the phrase "except when they are on the same surface site" should be removed from the combustion turbine major source definition. This phrase is not present in the 40 CFR part 63, subpart HH, major source definition that is the template for the combustion turbine MACT major source definition. Section 112(n)(4) of the CAA requires that wells and associated equipment not be aggregated even within the same surface site except as provided in the combustion turbine MACT major source definition. In the combustion turbine MACT major source definition, the phrase "storage vessel with flash emissions potential" should be changed to "storage vessel with the potential for flash emissions" to conform to the 40 CFR part 63, subpart HH, definition.

The commenter also stated that the General Provision major source

definition presented in the combustion turbine MACT is different from those found in the definition of major source in the NESHAP from Oil and Natural Gas Production Facilities (40 CFR 63.761). The significance of this difference is that sources that are area sources under subpart HH could possibly be rendered "major sources" under the combustion turbine MACT. The EPA should acknowledge this possibility in the preamble to the final rule and clearly state that this does not change the source's status under subpart HH or any other MACT. Another commenter recommended that the preamble clarify that the definition of major source in the combustion turbine MACT does not alter the definition of major source in subpart HH, and, therefore, does not affect subpart HH applicability.

Response: We agree with the commenters and have written the major source definition in the final rule to reflect appropriate comment. We have acknowledged in the preamble to the final rule that the definition of major source in the final rule may be different from those found in other rules. However, this does not alter the definition of major source in other rules, and, therefore, does not affect the Oil and Natural Gas Production Facilities NESHAP (subpart HH of 40 CFR part 63) or any other rule applicability.

Comment: One commenter observed that landfill and digester gas are defined in the proposed rule as being formed through anaerobic decomposition, which is usually but not always the case.

Response: We agree with the commenter that landfill and digester gas are not always formed only through anaerobic decomposition. As a result, we have written the definition of landfill and digester gas in the final rule acknowledging that these gases are usually formed through anaerobic decomposition, but not always by inserting the word "typically" in front of "formed" in both definitions.

C. Dates

Comment: Two commenters stated that immediate compliance is unrealistic for new and reconstructed turbines and recommended a 1-year compliance timeframe. Other commenters recommended that the final rule allow 1 year to conduct the initial performance test, rather than the 180 days provided by the 40 CFR part 63, General Provisions.

Response: Immediate compliance is appropriate for new or reconstructed turbines and is consistent with the General Provisions of 40 CFR part 63. Sources are required to install the proper equipment and meet the applicable emission limitations on startup. However, we allow sources 180 days to demonstrate compliance. We feel that 180 days is sufficient time to conduct the initial performance test, consistent with the General Provisions. Sources have the option to petition for additional time if necessary.

Comment: One commenter requested that EPA allow a facility with identical combustion turbines to conduct performance tests on only one of the units to demonstrate compliance with the emission limits for all of the identical units.

Response: We are not allowing facilities with identical combustion turbines to conduct performance tests on only one of the units to demonstrate compliance with the emission limits for all of the identical units because not all apparently identical facilities produce the same emissions. We have turned down many similar requests and have asked owners and operators to run stack tests on all individual units.

Comment: Two commenters requested that the rule provide 1 year for initial notification of MACT applicability, as in the Oil and Natural Gas Production and the Natural Gas Transmission and Storage MACT, instead of 120 days.

Response: We do not agree that 1 year is necessary for initial notification of MACT applicability. An initial notification is not a time consuming activity.

D. MACT

Comment: Three commenters took issue with the MACT floor for new diffusion flame stationary combustion turbines. The commenters stated that no formaldehyde emissions data or oxidation catalyst control efficiency data were available to EPA to support setting the MACT floor for new diffusion flame stationary combustion turbines; newer models of turbines in the diffusion flame category should be evaluated to identify the best-performing unit.

Response: At proposal, we had limited emissions data for stationary combustion turbines, including one test for a diffusion flame turbine with add-on HAP emission control, and we requested HAP emissions test data from stationary combustion turbines. We received new emissions data for diffusion flame turbines during the comment period, including an additional formaldehyde test on a diffusion flame unit equipped with add-on HAP emissions control. The new data also include several tests conducted using FTIR, which is regarded as the most accurate measurement method for formaldehyde for stationary combustion turbines. Thus, the data set has been significantly improved, both quantitatively and qualitatively, and we feel that the data set is sufficient to identify the best-performing unit.

Based on comments and information received during the public comment period, the diffusion flame subcategory was divided further into subcategories for diffusion flame combustion turbines when firing gas and when firing oil at sites where all turbines fire oil for no more than 1000 hours annually ("diffusion flame gas-fired turbines") and for diffusion flame combustion turbines when firing oil at sites where all turbines fire oil more than 1000 hours annually ("diffusion flame oil-fired turbines").

In addition, based on information received during the public comment period indicating that oxidation catalysts are in use on some existing diffusion flame combustion turbines, we reevaluated the MACT floor for new turbines in each of the diffusion flame subcategories.

Comment: One commenter contended that the MACT floor for existing diffusion flame is unlawful because EPA did not identify the best performing sources or determine the emission levels they are achieving; EPA merely considered whether or not they are equipped with a catalyst. The commenter stated that whether or not the relevant best sources are equipped with control equipment, they are achieving some emission level, and EPA must determine the average emission level they are achieving and set floors at that level.

Response: We agree with the commenter that all factors which might control HAP emissions must be considered in making a floor determination for each subcategory, and that this analysis cannot be properly limited to add-on controls. However, we disagree that it must express the floor as a quantitative emission level in those instances where the source on which the floor determination is based has not adopted or implemented any measure that would reduce emissions. In this instance, we decided to subcategorize within diffusion flame combustion turbines based on the fuel which is used, because the composition of HAP emissions differs materially based on whether gas or oil is used. We then determined for each subcategory of diffusion flame combustion turbines that emissions of each HAP are relatively homogenous across that subcategory, and that there are not any

adjustments of the turbines or other operational modifications except for the use of add-on controls which would be effective in reducing HAP emissions. Since the source on which the floor for existing sources in each subcategory of diffusion flame turbines is based has not installed such add-on controls, we determined that the MACT floor for each such subcategory requires no emission reductions. We have also established fuel-based subcategories within lean premix combustion turbines, and have made a comparable determination that the MACT floor for existing sources within each of these subcategories requires no emission reductions.

Comment: One commenter said that the MACT floor for new diffusion flame units is unlawful because EPA did not identify the best-performing diffusion flame combustion turbine and the floor does not reflect what that source achieved in practice. According to the commenter, EPA ignored other factors that affect a source's performance (fuel, design, age, maintenance, operator training, skill and care, differences in effectiveness of catalysts). The performance of all sources using an oxidation catalyst is not the same and cannot possibly reflect the performance of the single best source.

Response: We agree with the commenter that the standard for new sources within each subcategory must be based on the emission levels achieved in practice by the best controlled similar source. However, we think that the performance in reducing emissions by the best controlled source will not be uniform, and that it would be inappropriate to establish a standard which could not be consistently met even by the source upon which the standard is based. We, therefore, believe that there must be some allowance made for the intrinsic variability in the effectiveness of controls in the standard we establish. We do not think that the performance of oxidation catalysts differs as much from one turbine to the next as suggested by the commenter, and we believe that the emission control levels achieved in practice by catalysts on differing turbines is one factor we may appropriately consider in evaluating the variability in emission control levels which is intrinsic to catalyst operation.

Comment: One commenter observed that EPA stated that it considered fuel switching but could not find a less HAP emitting fuel. The EPA's own data show that combustion turbines burning fuel oil have higher benzene and xylene emissions than combustion turbines firing natural gas or landfill gas. Had EPA tested other HAP, it would likely have found that fuel oil produces higher levels of those HAP as well. The EPA has already found the entire diesel exhaust stream to be hazardous.

Response: We agree with the commenter that the composition of HAP emissions are different for combustion turbines firing natural gas and combustion turbines firing oil. We have evaluated both the data we had prior to proposal and the data received since proposal; the test data support the conclusion that HAP emissions are different for different fuels for stationary diffusion flame units. Uncontrolled formaldehyde emissions are in general lower as a result of the combustion of distillate oil than for natural gas. Other differences in emissions between natural gas and distillate oil include higher levels of pollutants such as PAH and metals for stationary combustion turbines burning distillate oil.

We proposed one subcategory for combustion turbines using lean premix technology and another subcategory for combustion turbines using diffusion flame technology. However, in recognition of the clear differences we found in the composition of HAP emissions depending on the fuel that is used, we have determined that it is appropriate to subcategorize further based on fuel use. In devising appropriate subcategories based on fuel use, we need to consider that many combustion turbines are configured both to use natural gas and distillate oil. These dual fuel units typically burn natural gas as their primary fuel, and only utilize distillate oil as a backup. To limit the frequency of switching between subcategories caused by limited usage of a backup fuel, we have defined the gas subcategories in a manner which permits combustion turbines that fire gas to remain in the gas subcategory if all turbines at the site in question fire oil no more than a total of 1000 hours during the calendar year.

Comment: Several commenters took issue with the methodology and data used to set the MACT floors for lean premix units. Two commenters contended that EPA's determination of the floor for existing lean premix turbines is fundamentally flawed, and that reliance on a single data point and the assumptions made to compensate for the inherent error and variability is not appropriate. It was suggested that EPA must obtain additional information before it can set a floor.

Two commenters stated that data from all five combustion turbines should be used to set the MACT floor for existing lean premix turbines. One commenter determined that the formaldehyde limit should be 219 ppb if EPA declines to set the floor as no emission reduction.

Several commenters remarked than the MACT floor for new and existing lean premix turbines does not reflect a reasonable estimate of formaldehyde emissions achieved in practice by the best-performing source; EPA should adjust the MACT floor to reflect formaldehyde emissions reasonably expected over the operating range of the best-performing lean premix turbine. One commenter observed that EPA's use of the performance test of one "best" lean premix unit is not statistically viable and does not meet the statutory requirement for setting the MACT floor.

Two commenters said that EPA's emission standard for lean premix combustion turbines is unlawful and EPA should establish a "no control" emission limitation. It was also stated that EPA did not determine that the best performers in the subcategory were "controlling" their emissions in a duplicable manner. They stated that EPA improperly set the floor for the existing lean premix subcategory; EPA based the floor on the performance of the best source for which it had data, instead of basing it on the average emission limitation of the five sources for which it had data. They also stated that all of the variability that either the best performers will experience or that will affect the attainability of emissions had not been considered and suggested that EPA consider the normal turbine variations based on time, fuel, location, weather, and the repeatability of testing and monitoring methods.

Response: As previously discussed, we had limited emissions data at proposal for stationary combustion turbines. We had five tests for formaldehyde emissions for lean premix combustion turbines, none of which were on lean premix units with add-on HAP emission control. We received new emissions data for lean premix turbines, including two formaldehyde tests on a lean premix unit equipped with add-on HAP emissions control. The new data also include several tests conducted using FTIR, which is regarded as the most accurate measurement method for formaldehyde for stationary combustion turbines. Thus, the data set has been significantly improved, both quantitatively and qualitatively, and EPA believes that the data set is sufficient to identify the best-performing unit.

Also, as discussed previously, we decided that it is appropriate to subcategorize based on fuel within the subcategories for diffusion flame and lean premix combustion turbines. We have established subcategories for lean

premix combustion turbines when firing gas and when firing oil at sites where all turbines fire oil for no more than 1000 hours annually ("lean premix gas-fired turbines"), and for lean premix combustion turbines when firing oil at sites where all turbines fire oil more than 1000 hours annually ("lean premix oil-fired turbines").

As a result of comments and the new data submitted post-proposal, we also have reevaluated the MACT floor for both existing and new turbines in each of the lean premix subcategories.

Comment: One commenter said that the MACT floor for existing lean premix combustion turbines is unlawful. The floor (formaldehyde) is at a level far worse than the emission levels achieved by the best source. The 95 percent reduction standard is unlawful because it does not even purport to reflect the actual emission levels achieved by the relevant best sources. The commenter also stated that CO is not a valid surrogate.

Response: We reevaluated the MACT floor for existing gas-fired and oil-fired LPC units as a result of comments and the new data submitted post-proposal. We do not agree that CO reduction is not a valid surrogate for HAP reduction, however, the alternative CO emission limitation has been removed from the final rule due to CO measurement difficulties. Thus, the commenter's concerns are moot. We have determined that formaldehyde is an appropriate and valid surrogate for each of the organic HAP that can be controlled by a catalyst, and that the standard for such organic HAP can be reasonably expressed in terms of formaldehyde emissions measured after exiting any control device.

Comment: One commenter stated that the MACT floor for new lean premix units does not reflect the actual performance of the single best source.

Response: As explained above, we believe that we must accommodate intrinsic variability in performance when setting a standard which is based on the performance of the best controlled similar source. It would make no sense to adopt a standard based on the best controlled source which could not be consistently met even by that source.

Comment: One commenter remarked that for MACT, EPA's rejection of potential control technologies that might be applied, including wet scrubbers, dry scrubbers, and activated carbon, without even considering them is unlawful, and that EPA's argument that a greater degree of reduction could not be achieved through the use of clean fuels is unlawful.

Response: We agree with the commenter that the effect of the choice of natural gas or fuel oil on the composition of HAP emissions is significant, and we have, therefore, subcategorized further within both lean premix and diffusion flame turbines based on which of these fuels is used. We are not aware of any data indicating that HAP emissions could be consistently reduced by selection of particular clean fuels within these general fuel groups. As for the other novel emission control technologies to which the commenter refers, we do not believe that these technologies are in use on any combustion turbine and we do not consider any sources utilizing such controls to be similar sources. Moreover, we are unable based on available information to determine that these technologies would be both efficacious and cost effective in reducing HAP emissions from combustion turbines.

Comment: One commenter remarked that for existing emergency, limited use, landfill or digester gas fired, and less than 1 MW units, EPA did not set a floor that reflects the emission levels that the best performing sources actually achieved. The EPA has not identified the relevant best performing sources and has not determined the average emission limitation achieved by such sources, therefore, EPA's floors for these sources are unlawful.

Response: We have not decided to establish a limited use subcategory. For the emergency, landfill or digester gas fired, and less than 1 MW subcategories, we have not identified any adjustments or other operational modifications that would materially reduce emissions by these units and we have determined that no add-on controls are presently in use. In these circumstances, we believe that we have appropriately established the floors for these sources as no emission reduction.

Comment: One commenter said that for new emergency, limited use, landfill or digester gas fired, and less than 1 MW units, the floor is unlawful because EPA did not identify the single best controlled source in any of these subcategories and did not set floors reflecting such source's actual performance.

Response: As noted above, we have not decided to establish a limited use subcategory. For the emergency, landfill or digester gas fired, and less than 1 MW subcategories, we have not identified any adjustments or operational modifications that would materially reduce emissions by these units and we have determined that no add-on controls are presently in use. We also have determined because of the specific characteristics of turbines in these subcategories that the turbines in other subcategories that utilize add-on controls are not similar sources. In these circumstances, we believe that we have appropriately determined that the new source MACT floor for these subcategories should also be no emission reduction.

Comment: One commenter contended that EPA's rejection of beyond the floor standards for new emergency, limited use, landfill or digester gas fired, and less than 1 MW units is arbitrary and capricious. The EPA does not state the cost of applying any control technology or indicate the quantity of the HAP that would be reduced.

Response: We believe that the record includes analysis demonstrating that it is not cost effective to require HAP controls for turbines in instances where no similar source has installed such controls.

Comment: One commenter said that EPA's proposal is unlawful because EPA must set standards for each listed HAP. Oxidation catalyst control devices do not control many of the HAP that combustion turbines emit, for example metals.

Response: We do not agree that it is required to establish a discrete standard for each listed HAP. However, we do agree that each listed HAP must be separately considered by EPA, both in determining the MACT floors and in establishing the emission standards for each subcategory. If emissions of a particular HAP are relatively homogenous for a particular subcategory, and there are no adjustments or operational modifications except for add-on controls which would reduce emissions of that HAP, the MACT floor and the emission standard for that HAP may be expressed as a level of emission reduction corresponding to the efficacy of add-on controls. Moreover, if the data demonstrate that control of emissions of a particular HAP is a suitable surrogate for control of emissions of a group of listed HAP, we may appropriately set the standard in terms of a level of emission reduction or an emission level for that particular HAP.

In establishing new source standards for certain subcategories, we determined that formaldehyde is an appropriate surrogate for the other organic HAP which are also controlled by an oxidation catalyst. While use of an oxidation catalyst does not control the metallic HAP which are emitted by turbines burning distillate oil, there are no combustion turbines or similar sources utilizing other technologies to

control metallic HAP. Moreover, we do not believe it would be practical or cost effective to require control of these metallic HAP and, therefore, the floor and the standard for each metallic HAP was appropriately set at no emission reduction.

Comment: One commenter noted that EPA's floors must reflect the average emission levels achieved by the relevant best sources. Thus, even if some of the relevant best sources are not using any control device, the agency must average their performance with that of the relevant best sources that are using a control device. That some of the relevant best performers are not using an end-of-stack control technology does not allow EPA to discount the performance of other best performers that are using such technology.

Response: We do not agree with the premise of this commenter that the existing source MACT floor (the average emission limitation achieved by the best performing 12 percent of existing sources or the best performing five existing sources in subcategories with fewer than 30 sources) must be calculated by determining the arithmetic average of the emission limitations achieved individually by each of these sources. We have consistently construed the statute to permit us to determine the average emission limitation by selecting the median facility among the best performing 12 percent or five existing sources. We think this well-established construction of the statute is reasonable, because an arithmetic average will quite often not coincide with the level of emission reduction that has been achieved in practice by any real facility. We do not think it is appropriate to establish an existing source MACT floor which may not be achievable by most of the sources from which it was derived. Nor do we think it is required to set a standard which is less stringent than most of the sources from which it is derived are achieving. Use of the emission limitation achieved by the median facility avoids these problems.

E. Emission Limitations

Comment: Many commenters stated that the final rule should only apply emission standards to the load range represented by the emissions data used to determine emission limitations.

Response: The emission standards are based on data from testing at high loads (90 percent and greater). To address the concerns expressed by the commenters about the emission standards being applicable at full load only, the final rule specifies that the performance test must be conducted at high load conditions, defined as 100 percent ±10 percent.

Comment: Many commenters took issue with the data used to set the formaldehyde emission limitation. The commenters noted that the test reports used to set the limit used two different test methods and that the limit was based on only five data points and, therefore, does not reflect a level of performance that is achievable for all sources. One commenter said that EPA has not provided enough data to know definitively what the standard should be. Another commenter stated that EPA must obtain additional information before it can set a floor.

The commenters also had concerns about possible errors in the test reports that are the source of the emissions data used to set the formaldehyde emission limitation. One commenter said that close examination of the five reports uncovers questions regarding the actual test procedures, comparability, data reduction and data reporting that should be revisited before finalizing the formaldehyde concentration limit. They stated that all five reports appear to have calculation errors and/or other data quality issues that significantly affect the reported formaldehyde concentration, the comparability of the results because different test methods were used, and/or uncertainty associated with the average result. One commenter also reviewed the five tests used to set the standard and found that all of the five tests used do not present valid quantitative results; and that data from these tests may not be used to establish a quantitative emission standard for formaldehyde emissions from lean premix combustion turbines.

One commenter said that CARB 430 may report anomalously low formaldehyde emissions; therefore, the standard may be too stringent and unachievable in practice. Two commenters questioned whether the CARB 430 data used to develop the standard followed CARB method requirements. One commenter believed that the results from all tests used to determine the MACT floor should be recalculated using CARB 430 procedures so the data can be justifiably compared and that results should also be recalculated using the American Society of Mechanical Engineers measurement uncertainty analysis procedure. The EPA should then use these results for establishing the formaldehyde concentration limit. The commenter estimated that an enforceable formaldehyde concentration limit should be in the range of approximately 100 to 500 ppb.

One commenter said that a single emission test does not fully reflect the variability that will be seen by the best performing source employing any technology. The EPA should properly assess variability that may be experienced by the best performing sources under the worst foreseeable conditions that are expected to recur. Emission testing conducted by the commenter in conjunction with the Gas Turbine Institute indicates that 43 ppb is not achievable for small industrial and aeroderivative turbines.

Several commenters suggested a revised level for the emission limitation. One commenter said that EPA must revise the limit upward to at least 63 ppb. Two commenters stated that additional formaldehyde data suggests that EPA should consider setting the emission standard to 90 ppbvd given the tremendous variability in the few measurements that are available. One commenter submitted a summary table of data for nine tests conducted on lean premix combustion turbines. The test results show a variability between high and low loads of 34 percent; also, six out of nine tests were above 43 ppb.

Response: As a result of comments received during the comment period, we performed an extensive review of tests used at proposal and new tests received during the comment period. A screening analysis of the formaldehyde test data for diffusion flame combustor turbines was conducted. Tests conducted using CARB 430 were evaluated due to the CARB advisory issued April 28, 2000, which stated that formaldehyde data measured by CARB 430 where the NO_X emissions were greater than 50 ppm should be flagged as non-quantitative. Tests where the NO_X emissions were greater than 50 ppm, or tests where the NO_X levels were unknown, were excluded from our analysis. Most of the diffusion flame tests in the EPA's combustion turbine emissions database were unable to pass the screening. The tests unable to pass the screening were not equipped with add-on control for the reduction of HAP.

The remaining test reports were further analyzed and reviewed to ensure the methods were used correctly in calculating and reporting formaldehyde concentrations and to check that proper quality assurance (QA)/quality control (QC) procedures were followed. A number of errors were found in the test reports where CARB 430 was used to quantify formaldehyde concentrations. In several instances, the CARB 430 reporting protocol was not followed. If the analytical concentration is less than five times the average field blank, then CARB 430 uses five times the field

blank as the reported result to correct for interferences or contaminants that can react with the formaldehyde or dinitrophenylhydrazine to yield negative bias. However, many test reports did not report formaldehyde concentrations in this fashion. The formaldehyde concentrations were, therefore, recalculated where the CARB 430 reporting protocol was not followed correctly.

No errors were found in test reports which used FTIR to measure formaldehyde concentrations in the stationary combustion turbine exhaust. The reported formaldehyde concentrations were representative of stationary combustion turbines and the measured QA/QC parameters were within acceptable limits as set in the method.

We agree that CARB 430 generally understates the formaldehyde concentration in the exhaust gas from stationary combustion turbines. Since EPA Method 0011 is a similar method to CARB 430, it is believed that Method 0011 also understates the emissions of formaldehyde. We feel that FTIR is a more accurate and reliable method than CARB 430. Several test reports were received during the comment period on recent testing on small lean premix combustion turbines which used both CARB 430 and FTIR to measure formaldehyde emissions. An analysis was conducted to correlate formaldehyde concentrations measured by CARB 430 and formaldehyde concentrations measured by FTIR. A linear regression was performed on the CARB 430 and FTIR formaldehyde data from these tests which gave a slope of 1.667 with a correlation coefficient of 0.561. Therefore, we concluded that CARB 430 formaldehyde results are on average 1.7 times lower than FTIR formaldehyde results. To account for the differences in the methods, a bias factor of 1.7 was applied to the CARB 430 and Method 0011 formaldehyde emissions data to make these data comparable to FTIR.

As a result of a complete data review, including emissions data we had at proposal and new emissions data we received during the comment period, we currently have a very different data set as compared to what we had at proposal. For example, the amount of data for lean premix units increased, while the amount of data for diffusion flame units decreased. As discussed previously, the new data set was used to determine the MACT floors. For new lean premix gas-fired turbines and new lean premix oil-fired turbines, a formaldehyde emission limitation of 91 ppb was established for the MACT floor. It is felt that this emission limitation will be achievable for both small and large size combustion turbines. We considered establishing separate subcategories by size but found that there was little difference in emissions among the best performing small and large units. The best performing large lean premix unit was controlled by an oxidation catalyst, and EPA had data from two separate tests of this turbine. Formaldehyde emissions were measured at 19 and 91 ppb. The best performing small lean premix unit (less than 25 MW) had uncontrolled formaldehyde emissions of 68 ppb, which is within the range of emissions for the large lean premix unit.

We have adequately considered the variability in emissions by the best performing source. We have emissions data for two tests for the best performing turbine in the lean premix gas-fired turbine subcategory; the formaldehyde emissions varied by a factor of five between the two tests. Since both tests were performed under similar conditions but at different times, they represent the variability of the best performing unit. The MACT floor for this subcategory was set based on the higher formaldehyde measurement, thus the variability of the best performing unit has been accounted for. Similar variability factors were applied for the other subcategories. This is explained further in section III.E.

F. Monitoring, Recordkeeping, and Reporting

Comment: Multiple commenters requested that the CO continuous emission monitoring system (CEMS) requirement be removed and periodic testing/parametric monitoring be adopted. Some commenters cited the cost burden of a CEMS, and others noted that a requirement for CO CEMS imposes an excessive cost burden for smaller turbines. One commenter also noted that CEMS have typically not been required on small turbines and personnel would not be familiar with CEMS operation and maintenance, resulting in increased capital and operating costs. Furthermore, one commenter felt that there would not be significant emissions reduction for the use of CEMS compared to the use of inlet temperature monitoring and periodic emission testing, the requirement is inconsistent with previous EPA decisions on monitoring, and there are deficiencies in the test methods and performance protocols. One commenter questioned whether the low measurements can be made accurately and reliably on a continuous basis without jeopardizing the flexibility of facility operations.

Many commenters recommended alternatives to the CO CEMS requirement. One commenter suggested the option of monitoring compliance with a one-time performance test for CO. One commenter said that an option could be reliance on a Federal CO permit limit combined with periodic CO stack testing. If the permitted CO limit is relatively high, compliance with the formaldehyde limit at that level could first be determined using an initial formaldehyde test. If the CO limits/concentration are low, initial formaldehyde testing should not be necessary. The commenter recommended that EPA establish a default minimum compliance demonstration at 5 parts per million (ppm). One commenter recommended that EPA evaluate periodic stack tests, conducted on the same schedule as relative accuracy test audit (RATA) testing as an alternative to CEMS. At a minimum, this approach should be pursued for units with oxidation catalyst systems that would qualify as peaking units under the Acid Rain Program and are not otherwise required to conduct emissions monitoring for CO or other pollutants.

One commenter said that a more workable solution would be to measure downstream CO, but only if a CEMS is already required for NO_X. A catalyst efficiency test could be performed periodically to confirm continued reduction efficiency (an option to perform this check with portable analyzer should be included). One commenter said that if EPA includes an option to monitor CO emissions using CPMS rather than CO CEMS, a requirement to replace a catalyst bed when the pressure drop increases by more than 2 inches of water from the drop measured during the initial performance test may not be appropriate. Particular vendors are better able to specify the conditions under which catalyst replacement is warranted.

Response: In the preamble for the proposed rule, we solicited comments on the performance capabilities of a state-of-the-art CO CEMS and its ability to measure the low concentrations of CO in the exhaust of a stationary combustion turbine following an oxidation catalyst control device. In general, commenters did not support CO CEMS, stating that existing CO CEMS technology and EPA performance criteria are not adequate to reliably and accurately measure trace levels of CO. Due to the CO measurement difficulties, EPA has decided not to include the CO

emission reduction limitation in the final rule.

Comment: One commenter remarked that subsequent performance testing (suggest no more frequent than annually) is needed for units meeting the formaldehyde limit, and that there should also be some methodology for the demonstration of continuous compliance.

Response: We agree with the commenter that subsequent performance testing is needed for units meeting the formaldehyde limit. The final rule includes a requirement for annual performance testing for units meeting the formaldehyde limit and designated requirements for continuous compliance. For sources equipped with oxidation catalyst control, continuous compliance will be demonstrated by continuously monitoring the inlet temperature to the catalyst and maintaining the inlet temperature within the range suggested by the catalyst manufacturer. Sources that are not equipped with oxidation catalyst control must petition the Administrator for approval of operating limitations or approval of no operating limitations.

Comment: One commenter said that EPA should allow facilities to use existing test data to demonstrate compliance with the emission limitation if the test was conducted using the same methods specified in the rule and no process changes have been made since the test, or it can be demonstrated that the results of the performance test reliably demonstrate compliance despite process changes.

Response: Since there are no emission limitation requirements for existing sources in the final rule, we expect that few facilities will have existing test data to demonstrate compliance. Facilities that came online after the proposal would be the only sources that may have conducted emissions testing prior to the stack testing requirements of the final rule, and we will allow facilities to use existing test data to demonstrate initial compliance with the emission limitation if the data is of good quality and is no older than 2 years. (After the initial compliance demonstration, facilities must then begin to follow the annual compliance test schedule.) The facility must petition the Administrator for approval and demonstrate that the tests were conducted using the same test methods specified in the subpart, the test method procedures were correctly followed, no process or equipment changes have been made since the test, and the data are of good quality and less than 2 years old. This has been specified in the final rule.

G. Test Methods

Comment: Several commenters expressed concern regarding the accuracy and precision of CARB Method 430 at levels commensurate with the proposed standard. Two commenters noted that CARB Method 430 is susceptible to interferences. One commenter said that sample loss and measurement uncertainties can contribute to large measurement variability. Another commenter contended that CARB Method 430 is an indirect measurement method and is inferior to Method 320. This commenter also said that CARB Method 430 cannot give realistic results.

Response: New information provided during the public comment period where CARB 430 and FTIR were concurrently tested showed that CARB 430 using the CARB reporting protocol is biased low by a factor of 1.7 compared to FTIR. Therefore, we agree with the commenters' concerns regarding the accuracy of CARB Method 430 and that it is an indirect measurement method, however, EPA disagrees that CARB Method 430 cannot give realistic results. In some cases, we believe that CARB Method 430 can provide realistic results. However, we also agree that FTIR would be the better compliance method. Therefore, we have specified Method 320 and ASTM D6348–03 as the compliance procedures in the final rule.

Comment: Several issues were raised in the comments received regarding EPA Method 0011. One commenter did not support the use of EPA Method 0011 for combustion turbines because there is no need for isokinetic sampling in combustion turbine stacks, compared to CARB Method 430 the field procedure is more complex, the potential for chronic field contamination is much greater, the QA/QC procedures are vastly inferior, the data reporting procedures especially with respect to blanks are more vague, and the method does not have sufficient sensitivity for demonstrating compliance with the proposed formaldehyde limit.

Response: We agree with the commenters that the method has many shortcomings and limited application opportunities for use in measuring formaldehyde emissions from stationary combustion turbines. Accordingly, we are not including EPA Method 0011 in the final rule. Both EPA Method 0011 and CARB Method 430 can be requested on a case-by-case basis as part of EPA's alternative method review process.

Comment: Several commenters did not support Method 323. The commenters said that the method should not be used for measuring very low concentrations of formaldehyde. The minimum detection levels of the method are not suitable for the emission standards. Two commenters also noted that the method has not been validated or demonstrated for use on combustion turbines with low ppb range formaldehyde emissions.

Response: We agree with commenters that Method 323 should not be used for measuring low concentrations of formaldehyde from combustion turbines. Therefore, we are not including Method 323 in the final rule.

Comment: Numerous commenters said that CO CEMS cannot reliably measure trace level CO concentrations and 95 percent CO reduction. One commenter remarked that EPA provides no information to show that CEMS are available to accurately measure low CO concentrations, and the use of CO CEMS for low levels is well beyond the scope of current 40 CFR part 60 CEMS performance standards. Also, vendor claims for CO CEMS and CO instrumental analyzers, unless accompanied by emissions test data obtained under known and controlled conditions applicable to the subject source type, should not be considered adequate proof of availability and performance.

Response: We agree that existing CO CEMS technology and EPA performance criteria are not adequate to reliably and accurately measure trace levels of CO. The American Society for Testing and Materials (ASTM) is currently trying to address this issue, with participation by EPA. The requirement for CO CEMS has not been included in the final rule.

Comment: Three commenters sought an allowance for site specific emission limits where duct burners are utilized and the formaldehyde limit applies. Three commenters recommended that facilities should be allowed to either accept the formaldehyde limit at the stack with the duct burner in operation, or be allowed to petition the EPA for an alternate (higher) formaldehyde limit for the combined turbine/duct burner co-firing.

Response: We have included the commenters' suggestions that facilities be allowed to accept the formaldehyde limit at the stack with the duct burner in operation in the final rule; however, it is not necessary to specify in the final rule that affected sources are allowed to petition EPA for an alternate formaldehyde limit.

H. Risk-Based Approaches

The preamble to the proposed rule requested comment on whether there might be further ways to structure the

final rule to focus on the facilities which pose significant risks and avoid the imposition of high costs on facilities that pose little risk to public health and the environment. Specifically, we requested comment on the technical and legal viability of three risk-based approaches: an applicability cutoff for threshold pollutants under the authority of CAA section 112(d)(4), subcategorization and delisting under the authority of CAA section 112(c)(1) and (9), and, a concentration-based applicability threshold.[1]

We indicated that we would evaluate all comments before determining whether either approach would be included in the final rule. Numerous commenters submitted detailed comments on these risk-based approaches. These comments are summarized in the Response-to-Comments document (*see* **SUPPLEMENTARY INFORMATION** section).

Based on our consideration of the comments received and other factors, we have decided not to include the risk-based approaches in today's final rule. The risk-based approaches described in the proposed rule and addressed in the comments we received raise a number of complex issues. In addition, we must issue the final rule expeditiously because the statutory deadline for promulgation has passed, and we have agreed to a binding schedule in a consent decree entered in *Sierra Club* v. *Whitman*, Civil Action No. 1:01CV01537 (D.D.C.). Given the range of issues raised by the risk-based approaches and the need to promulgate a final rule expeditiously, we believe that it is appropriate not to include any risk-based approaches in today's final rule.

I. Other

Comment: Two commenters remarked that EPA's declaration that diesel fired turbines cannot be operated in the lean premix mode is a misstatement. While some manufacturers, on some models, only offer liquid fuel capability in diffusion flame mode, other manufacturers have offered the dual fuel option on lean premix turbines since the mid-1990's. One commenter stated that the standard should be modified because of the dual fuel capability of combustion turbines. The commenter noted that EPA has no data to represent lean premix liquid fuel operation and, therefore, cannot determine an appropriate standard.

[1] See 68 FR 1276 (January 9, 2003) (Plywood and Composite Wood Products Proposed NESHAP) and docket number A–98–44 (White Papers submitted to EPA outlining the risk-based approaches).

Response: At the time the NESHAP were proposed, we were not aware of the availability of diesel fired turbines that operated in the lean premix mode. We have since contacted several turbine manufacturers in an attempt to obtain more information about these units, and two manufacturers confirmed that they do offer diesel firing while operating in lean premix mode. The commenter is correct that we have no emissions test data for lean premix units firing liquid fuel, however, information provided by the manufacturers indicated that their emission guarantees for CO and hydrocarbons were similar for both natural gas and diesel. Also, testing on dual fuel diffusion flame units shows that formaldehyde emissions are actually lower for distillate oil firing. Therefore, we have established an emission standard for lean premix oil-fired units in the final rule.

Comment: One commenter observed that HAP emissions from sources burning natural gas are enormously different from sources burning other fuels such as diesel. The commenter questioned EPA's argument that the summation of emission factors for various HAP for different fuels is comparable. The commenter also said that EPA does not explain what the summation of emission factors means or how it might be relevant to EPA's floors for any HAP.

Response: We agree with the commenter that the composition of HAP emissions from sources burning natural gas is different than from sources burning diesel fuel. Uncontrolled formaldehyde emissions are in general lower as a result of the combustion of distillate oil than for natural gas. Other differences in emissions between natural gas and distillate oil include higher levels of pollutants such as PAH and metals for stationary combustion turbines burning distillate oil. We agree that the summation of emission factors for various HAP for different fuels may be different. As discussed in the response to previous comments, due to the differences in HAP emissions, subcategories based on fuel were established for both diffusion flame and lean premix turbines.

IV. Rationale for Selecting the Final Standards

A. How Did We Select the Source Category and Any Subcategories?

Stationary combustion turbines can be major sources of HAP emissions and, as a result, we listed them as a major source category for regulatory development under section 112 of the CAA, which allows us to establish subcategories within a source category for the purpose of regulation. Consequently, we evaluated several criteria associated with stationary combustion turbines which might serve as potential subcategories.

We identified emergency stationary combustion turbines as a subcategory. Emergency stationary combustion turbines operate only in emergencies, such as a loss of power provided by another source. These types of stationary combustion turbines operate infrequently and, when called upon to operate, must respond without failure and without lengthy periods of startup. These conditions limit the applicability of HAP emission control technology to emergency stationary combustion turbines.

Similarly, stationary combustion turbines which burn landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis or where gasified MSW is used to generate 10 percent or more of the gross heat input to the stationary combustion turbine on an annual basis were identified as a subcategory. Landfill gas, digester gas, and gasified MSW contain a family of chemicals referred to as siloxanes, which limit the application of HAP emission control technology.

Stationary combustion turbines of less than 1 MW rated peak power output were also identified as a subcategory. We believe these small stationary combustion turbines are few in number. These small stationary combustion turbines are sufficiently dissimilar from larger combustion turbines that we cannot evaluate the feasibility of emission control technology based on information concerning the larger turbines. To our knowledge, none of the smaller turbines use emission control technology to reduce HAP. Therefore, we believe it would be inappropriate to require HAP emission controls to be applied to them without further information on control technology performance.

Stationary combustion turbines can be classified as either diffusion flame or lean premix. We examined formaldehyde test data for both diffusion flame and lean premix stationary combustion turbines and observed that uncontrolled formaldehyde emissions for stationary lean premix combustion turbines are significantly lower than those of stationary diffusion flame combustion turbines. Due to the difference in the two technologies, we decided to establish subcategories for diffusion flame and lean premix stationary combustion turbines.

We further investigated subcategorizing lean premix turbines based on fuel. At the time of proposal, EPA was not aware of the availability of distillate oil fired stationary combustion turbines that operated in the lean premix mode. We received comments indicating otherwise during the public comment period from combustion turbine manufacturers. We believe there is a difference in uncontrolled HAP emissions between natural gas and distillate oil for stationary lean premix combustion turbines. This is based on test data for stationary diffusion flame combustion turbines which clearly show there is a difference in the composition of uncontrolled HAP emissions between natural gas and distillate oil. We believe this also would apply to stationary lean premix combustion turbines. For stationary lean premix combustion turbines, NO_X emissions also vary depending on which fuel is burned in the combustion process. Information from combustion turbine vendors indicate that NO_X emission guarantees for distillate oil can be up to five times higher than the NO_X emission guarantees for natural gas for stationary lean premix combustion turbines. Finally, the mass of total emissions may be similar for natural gas and distillate oil, but some pollutants such as formaldehyde are lower for distillate oil and other pollutants such as PAH and metals are higher for oil. For all practical purposes, uncontrolled natural gas metal emissions are nonexistent, while they are emitted in small quantities when burning distillate oil.

We expect that the majority of distillate oil burned in stationary combustion turbines will be fuel oil number 2. We recognize that stationary combustion turbine owners and operators may burn different varieties of distillate oil, however we believe that any other distillate oil combusted will be of similar quality and composition to fuel oil number 2. We do not anticipate that owners and operators will burn any other liquid based fuel that is more contaminated with metals than fuel oil number 2 and expect that most available liquid fuels that may be used in stationary combustion turbines will be similar and fairly consistent.

In recognition of the clear differences we found in the composition of HAP emissions depending on the fuel that is used, we have determined that it is appropriate to subcategorize further within stationary lean premix combustion turbines based on fuel use. In devising appropriate subcategories based on fuel use, we needed to consider that many combustion turbines are configured both to use natural gas and distillate oil. These dual fuel units typically burn natural gas as their primary fuel, and only utilize distillate oil as a backup. Without some allowance for this limited backup use of distillate oil, these turbines might switch subcategories frequently, causing confusion for sources and complicating compliance demonstrations. To limit the frequency of switching between subcategories which would result from limited usage of distillate oil as a backup fuel, we have defined the lean premix gas-fired subcategory in a manner which permits turbines that fire gas using lean premix technology to remain in the subcategory if all turbines at the site in question fire oil no more than a total of 1000 hours during the calendar year. We believe this 1000 hour allowance will be sufficient to accommodate those situations where distillate oil is used only as a backup. The lean premix gas-fired turbines subcategory will be defined to include: (a) Each stationary combustion turbine which is equipped only to fire gas using lean premix technology, (b) each stationary combustion turbine which is equipped both to fire gas using lean premix technology and to fire oil, during any period when it is firing gas, and (c) each stationary combustion turbine which is equipped both to fire gas using lean premix technology and to fire oil, and is located at a major source where all stationary combustion turbines fire oil no more than an aggregate total of 1000 hours during the calendar year.

The lean premix oil-fired turbines subcategory will be defined to include: (a) each stationary combustion turbine which is equipped only to fire oil using lean premix technology, and (b) each stationary combustion turbine which is equipped both to fire oil using lean premix technology and to fire gas, and is located at a major source where all stationary combustion turbines fire oil more than an aggregate total of 1000 hours during the calendar year, during any period when it is firing oil. We do not know of any actual combustion turbines which would be in this subcategory, but this is possible because we have been advised that combustion turbines can be configured to burn oil using lean premix technology.

We further investigated subcategorizing diffusion flame turbines based on fuel. For diffusion flame turbines, test data show that HAP emissions vary depending on which fuel is burned. Formaldehyde emissions are in general lower for diffusion flame units firing distillate oil versus diffusion flame units firing natural gas. Emissions data also show that NO_X levels are higher for diffusion flame units firing distillate oil than diffusion flame units firing natural gas. Finally, other fuel differences between natural gas and distillate oil include higher levels of pollutants such as PAH and metals in the emissions of stationary diffusion flame combustion turbines burning distillate oil. Quantities of these pollutants are small for distillate oil; metal emissions from natural gas are at non-detectable levels. As previously indicated, we expect that most owners and operators of stationary combustion turbines will burn distillate oil of the form fuel oil number 2. However, we recognize that other liquid based fuels may be also be fired, but these fuels will be similar to fuel oil number 2, and do not expect owners and operators to burn any other fuel that is more contaminated with metals.

As in the case of the lean premix turbines, we concluded based on the clear differences in the composition of HAP emissions depending on the fuel that is used that it is appropriate to subcategorize further within stationary diffusion flame combustion turbines based on fuel use. As in the case of the lean premix turbines, we have included a 1000 hour per site allowance for limited backup use of distillate oil in order to limit the frequency that dual fuel turbines will switch subcategories. We believe this 1000 hour allowance will be sufficient to accommodate those situations where distillate oil is used only as a backup.

The diffusion flame gas-fired turbines subcategory will be defined to include: (a) Each stationary combustion turbine which is equipped only to fire gas using diffusion flame technology, (b) each stationary combustion turbine which is equipped both to fire gas using diffusion flame technology and to fire oil, during any period when it is firing gas, and (c) each stationary combustion turbine which is equipped both to fire gas using diffusion flame technology and to fire oil, and is located at a major source where all stationary combustion turbines fire oil no more than an aggregate total of 1000 hours during the calendar year.

The diffusion flame oil-fired turbines subcategory will be defined to include: (a) each stationary combustion turbine which is equipped only to fire oil using diffusion flame technology, and (b) each stationary combustion turbine which is equipped both to fire oil using diffusion flame technology and to fire gas, and is located at a major source where all stationary combustion turbines fire oil more than an aggregate total of 1000 hours during the calendar year, during

any period when it is firing oil. We expect that the vast majority of all stationary combustion turbines which are primarily oil-fired will be included in this subcategory.

Stationary combustion turbines located on the North Slope of Alaska have been identified as a subcategory due to operation limitations and uncertainties regarding the application of controls to these units. There are very few of these units, and none have installed emission controls for the reduction of HAP.

B. What Are the Requirements for Stationary Combustion Turbines Located at Area Sources?

The final rule does not apply to stationary combustion turbines located at an area source of HAP emissions. An area source is any source that is not a major source of HAP emissions. In developing our Urban Air Toxics Strategy, we identified area sources we believe warrant regulation to protect the environment and the public health and satisfy the statutory requirements in section 112 of the CAA pertaining to area sources. Stationary combustion turbines located at area sources were not included on that list. As a result, the final rule does not apply to these stationary combustion turbines.

C. What Is the Affected Source?

The final rule applies to any stationary combustion turbine located at a major source. Consequently, a stationary combustion turbine located at major sources of HAP emissions is the affected source under the final rule.

The General Provisions at 40 CFR 63.2 require us to generally adopt a broad definition of affected source, which includes all emission units within each subcategory that are located within the same contiguous area. However, § 63.2 also provides that we may adopt a narrower definition of affected source in instances where we determine that the broader definition would "create significant administrative, practical, or implementation problems" and "the different definition would resolve those problems." This is such an instance.

Although we have taken some steps in the definition of subcategories to limit the frequency of switching between subcategories, we cannot eliminate the possibility that some individual turbines will be switched from one subcategory to another. Use of the broader definition of affected source specified by the General Provisions would require very complex aggregate compliance determinations because an individual turbine could be part of one affected source at one time and part of a different affected source at another time. This would require that the contribution of each turbine to total emissions for all emission units within each subcategory be adjusted to reflect the proportionate time the unit was operating within that subcategory. Such complicated compliance determinations are impractical and, therefore, we have decided to adopt a definition which establishes each individual combustion turbine as the affected source.

D. How Did We Determine the Basis and Level of the Emission Limitations for Existing Sources?

As established in section 112 of the CAA, the MACT standards must be no less stringent than the MACT floor. The MACT floor for existing sources is the average emission limitation achieved by the best performing 12 percent of existing sources in the subcategory (or the best performing five existing sources in subcategories with fewer than 30 sources).

From the applicable judicial precedent, we can derive certain basic principles which we must follow in deriving the MACT floor. All HAP emitted by sources in the category or subcategory in question must be considered in determining the MACT floor. If a particular HAP is an appropriate surrogate for evaluating emission reductions which have been achieved for a group of HAP, the MACT floor may be expressed in terms of that HAP. However, we must explain our basis for concluding there is a relationship between control of emissions of the HAP we utilize to characterize the MACT floor and control of other HAP. If we determine that the MACT floor requires differing controls affecting more than one group of HAP, multiple measures of the MACT floor may be necessary.

In addition, when deriving the MACT floor for a particular category or subcategory, we must consider all measures which could result in reduction of HAP emissions. These measures will include potential installation of add-on control technology, but other operational modifications such as adjustment of equipment, revision of work practices, and material substitution should also be considered. Where emissions are relatively homogeneous across the sources in a category or subcategory, and any variation in HAP emissions which does occur cannot be readily attributed to differences in any factor which is susceptible to control by the owner or operator, the MACT floor for a particular HAP or group of HAP may be expressed in terms of reductions achieved by use of potential add-on controls.

Existing Lean Premix Combustion Turbines

As explained above, we have established two subcategories of stationary lean premix combustion turbines, lean premix gas-fired turbines and lean premix oil-fired turbines. Emissions of each HAP are relatively homogeneous within each of these two subcategories, and any variation in HAP emissions cannot be readily controlled except by add-on control. To determine the MACT floor for both subcategories of existing stationary lean premix combustion turbines, the EPA's combustion turbine inventory database was consulted.

The inventory database provides population information on stationary combustion turbines in the United States (U.S.) and was constructed in order to support the development of the rule. Data in the inventory database are based on information from available databases, such as the Aerometric Information Retrieval System (AIRS), the Ozone Transport and Assessment Group (OTAG), and State and local agencies' databases. The first version of the database was released in 1997. Subsequent versions have been released reflecting additional or updated data. The most recent release of the database is version 4, released in November 1998.

The inventory database contains information on approximately 4,800 stationary combustion turbines. The current stationary combustion turbine population is estimated to be about 8,000 turbines. Therefore, the inventory database represents about 60 percent of the stationary combustion turbines in the U.S. At least 20 percent of those turbines are estimated to be lean premix combustion turbines, based on conversations with turbine manufacturers.

The information contained in the inventory database is believed to be representative of stationary combustion turbines primarily because of its comprehensiveness. The database includes both small and large stationary combustion turbines in different user segments. Forty-eight percent are "industrial," 39 percent are "utility," and 13 percent are "pipeline." Note that independent power producers (IPP) are included in the utility and industrial segments.

We examined all of the information available to us including the inventory database to identify any operational modifications such as equipment adjustments or work practice revisions which might be associated with lower

HAP emissions. We were unsuccessful in identifying any such operational modifications. Therefore, we were unable to utilize any factors other than add-on controls in deriving the MACT floor.

Another approach we investigated to identify a MACT floor was to review the requirements in existing State regulations and permits. No State regulations exist for HAP emission limits for stationary combustion turbines. Only one State permit limitation for a single HAP (benzene) was identified. Therefore, we were unable to use State regulations or permits in deriving a MACT floor.

The only add-on control technology currently proven to reduce HAP emissions from stationary lean premix combustion turbines is an oxidation catalyst emission control device. At proposal, the inventory database indicated that no existing stationary lean premix combustion turbines were controlled with oxidation catalyst systems. During the public comment period, we received a test report where a lean premix combustion turbine burning natural gas was tested twice about 2 years apart with an oxidation catalyst in operation.

We estimate that about 1 percent of existing lean premix gas-fired turbines may have oxidation catalyst systems installed. Accordingly, the average of the best performing 12 percent is no emission reduction. Therefore, the MACT floor for existing lean premix gas-fired turbines for each individual HAP is no emission reduction.

For lean premix oil-fired turbines, we do not have any data indicating that turbines in this subcategory are in actual use, nor do we have data indicating that oxidation catalysts have been installed. Accordingly, the average emission limitation achieved by the best performing existing units in this subcategory for each individual HAP would also be no emission reduction.

To determine MACT for both subcategories of existing stationary lean premix combustion turbines, we evaluated regulatory alternatives more stringent than the MACT floor. We considered requiring the use of an oxidation catalyst emission control device. According to catalyst vendors, oxidation catalysts are currently being used on some existing lean premix stationary combustion turbines. In addition, we recently received a test report where testing was conducted on a lean premix unit with an oxidation catalyst. However, an analysis of the application of oxidation catalyst control to existing lean premix stationary combustion turbines showed that the incremental cost per ton of HAP removed was excessive. We have not identified any operational modifications which are not currently in use for these turbines but might result in HAP reductions. Nor have we identified any technologies to control those metallic HAP which may be emitted during burning of distillate oil which are technologically feasible and cost-effective. For these reasons, we concluded that MACT for each individual HAP for existing sources in both subcategories of existing stationary lean premix combustion turbines is the same as the MACT floor, *i.e.*, no emission reduction.

Existing Diffusion Flame Combustion Turbines

As explained above, we have established two subcategories of stationary diffusion flame combustion turbines, diffusion flame gas-fired turbines and diffusion flame oil-fired turbines. We believe emissions of each HAP are relatively homogeneous within each of these two subcategories and any variation in HAP emissions cannot be readily controlled except by add-on control. To determine the MACT floor for both subcategories of existing stationary diffusion flame combustion turbines, we consulted the inventory database previously discussed in this preamble. At least 80 percent of those turbines are assumed to be diffusion flame combustion turbines, based on conversations with turbine manufacturers.

We investigated the use of operational modifications such as equipment adjustments and work practice revisions for stationary diffusion flame combustion turbines to determine if HAP reductions associated with such operational modifications might be relevant in deriving the MACT floor. We found no relevant references in the inventory database.

Most stationary diffusion flame combustion turbines will not operate unless preset conditions established by the manufacturer are met. Stationary diffusion flame combustion turbines, by manufacturer design, permit little operator involvement and there are no operating parameters, such as air/fuel ratio, for the operator to adjust. We concluded, therefore, that there are no specific operational modifications which could reduce HAP emissions or which could serve to identify a MACT floor.

Another approach we investigated to identify a MACT floor was to review the requirements in existing State regulations and permits. No State regulations exist for HAP emission limits for stationary combustion turbines. Only one State permit limitation for a single HAP (benzene) was identified. Therefore, we were unable to use State regulations or permits in deriving a MACT floor.

We examined the inventory database for information on HAP emission control technology. There were no turbines controlled with oxidation catalyst systems in the inventory database so we used information supplied by catalyst vendors. There are about 200 oxidation catalyst systems installed in the U.S. The only control technology currently proven to reduce HAP emissions from stationary diffusion flame combustion turbines is an oxidation catalyst emission control device, such as a CO oxidation catalyst. These control devices are used to reduce CO emissions and are currently installed on several stationary combustion turbines.

Less than 3 percent of existing stationary diffusion flame gas-fired turbines in the U.S., based on information in our inventory database and information from catalyst vendors, are equipped with oxidation catalyst emission control devices. Therefore, the average emission limitation for the best performing 12 percent of existing diffusion flame gas-fired turbines is no emission reduction and the MACT floor for each individual HAP for existing turbines in this subcategory is also no emission reduction.

We estimate that less than 1 percent of existing stationary diffusion flame oil-fired turbines have oxidation catalyst systems installed. Thus, the average of the best performing 12 percent of existing diffusion flame oil-fired turbines is no emission reduction for organic HAP. No technologies to control metallic HAP have been installed on the existing turbines in this subcategory. Therefore, the MACT floor for each individual HAP for existing turbines in the diffusion flame oil-fired subcategory is no emission reduction.

To determine MACT for both subcategories of existing diffusion flame combustion turbines, regulatory alternatives more stringent than the MACT floor were evaluated. One beyond-the-floor regulatory option is requiring an oxidation catalyst. However, cost per ton estimates of oxidation catalyst emission control devices for control of total HAP from stationary diffusion flame combustion turbines were deemed excessive. In addition, we did not identify any operational modifications which are not currently in use for these turbines but might result in HAP reductions. Moreover, we did not identify any

technologies to control those metallic HAP which may be emitted during burning of distillate oil which are technologically feasible and cost-effective. For these reasons, MACT for each individual HAP for turbines in both subcategories of existing stationary diffusion flame combustion turbines is the same as the MACT floor, *i.e.*, no emission reduction.

E. How Did We Determine the Basis and Level of the Emission Limitations and Operating Limitations for New Sources?

For new sources, the MACT floor is defined as the emission control that is achieved in practice by the best controlled similar source. To be a similar source, a source should not have any characteristics that differ sufficiently to have a material effect on the feasibility of emission controls, but the source need not be in the same source category or subcategory.

We considered using a surrogate in order to reduce the costs associated with monitoring while at the same time being relatively sure that the pollutants the surrogate is supposed to represent are also controlled. We investigated the use of formaldehyde concentration as a surrogate for all organic HAP emissions. Formaldehyde is the HAP emitted in the highest concentrations from stationary combustion turbines. Formaldehyde, toluene, benzene, and acetaldehyde account for essentially all the mass of HAP emissions from the stationary combustion turbine exhaust, and emissions data show that these pollutants are equally controlled by an oxidation catalyst.

Information from testing conducted on a diffusion flame combustion turbine equipped with an oxidation catalyst control system indicated that the formaldehyde and acetaldehyde emission reduction efficiency achieved was 97 and 94 percent, respectively. Later, after review of an expert task group, the conclusion reached was that both formaldehyde and acetaldehyde were controlled at least 90 percent. In addition, emissions tests conducted on reciprocating internal combustion engines (RICE) at Colorado State University (CSU) in 1998 showed that the benzene emission reduction efficiency across an oxidation catalyst averaged 73 percent, and the toluene emission reduction averaged 77 percent for 16 runs at various engine conditions on a two-stroke lean burn engine. The toluene emission reduction efficiency across the oxidation catalyst averaged 85 percent for ten runs at various engine conditions on a compression ignition RICE. We would expect the emissions reductions efficiencies for benzene and toluene from combustion turbines to be as high or higher than those reported for the CSU RICE tests since combustion turbines catalyst temperatures are generally higher. Finally, catalyst performance information obtained from a catalyst vendor indicated that the percent conversion for an oxidation catalyst system installed on combustion turbines did not vary significantly between formaldehyde, benzene, and toluene. The percent conversion was measured at 77, 72, and 71 for formaldehyde, benzene, and toluene, respectively. Although emissions reductions for large molecules may in theory be less than for formaldehyde, the above information shows that formaldehyde is a good surrogate for the most significant HAP pollutants emitted from combustion turbines as demonstrated by evaluating the reduction efficiency of larger, heavier molecules, hence taking differences in molecular density into account. In addition, emission data show that HAP emission levels and formaldehyde emission levels are related, in the sense that when emissions of one are low, emissions of the other are low and vice versa. This leads us to conclude that emission control technologies which lead to reductions in formaldehyde emissions will lead to reductions in organic HAP emissions. For the reasons provided above, it is appropriate to use formaldehyde as a surrogate for all organic HAP emissions.

New Lean Premix Gas-Fired Turbines

To determine the MACT floor for new stationary lean premix gas-fired turbines, we reviewed the emissions data we had available at proposal and additional test reports received during the comment period. In order to set the MACT floor for new sources in this subcategory, we chose the best performing turbine. Emissions of each HAP are relatively homogeneous within the subcategory of stationary lean premix gas-fired turbines and any variation in HAP emissions cannot be readily controlled except by add-on control. The best performing turbine is equipped with an oxidation catalyst.

The formaldehyde concentration from the best performing turbine was measured at the outlet of the control device using CARB 430. Concerns were raised during the public comment period that CARB 430 formaldehyde results can be biased low as compared to formaldehyde results obtained by FTIR. For a comprehensive discussion of test methods and the development of the correlation between CARB 430 and FTIR formaldehyde levels, please refer to the memorandum entitled "Review of Test Methods and Data used to Quantify Formaldehyde Concentrations from Combustion Turbines" in the docket. A bias factor of 1.7 was, therefore, applied to the formaldehyde concentration of the best performing turbine. The best performing turbine was tested twice under the same conditions about 2 years apart where one test measured 19 ppbvd and the other test measured 91 ppbvd formaldehyde (numbers have been bias corrected). We determined that since both of these tests were performed under similar conditions but at different times, this represented the variability of the best performing unit and used the higher value as the MACT floor. The MACT floor for organic HAP for new stationary lean premix gas-fired turbines is, therefore, an emission limit of 91 ppbvd formaldehyde at 15 percent oxygen.

We recognize that our selection of an emission limit of 91 ppbvd formaldehyde is based on quite limited data. We think that each new combustion turbine in this subcategory should be able to achieve compliance with this limit if an oxidation catalyst is properly installed and operated. If actual emission data demonstrate that we are incorrect, and that sources which properly install and operate an oxidation catalyst cannot consistently achieve compliance, we will revise the standard accordingly.

No beyond-the-floor regulatory alternatives were identified for new lean premix gas-fired turbines. We are not aware of any add-on control devices which can reduce organic HAP emissions to levels lower than those resulting from the application of oxidation catalyst systems. We, therefore, determined that MACT for organic HAP emissions from new stationary lean premix gas-fired turbines is the same as the MACT floor, *i.e.*, an emission limit of 91 ppbvd formaldehyde at 15 percent oxygen.

New Lean Premix Oil-Fired Turbines

We do not have any tests for lean premix combustion turbines firing any other fuels besides natural gas. However, we expect that emissions of organic HAP will be controlled by installation of an oxidation catalyst on any units in this subcategory to a degree similar to lean premix gas-fired turbines and diffusion flame oil-fired turbines. We also expect that organic HAP emissions from lean premix oil-fired turbines would be equal to or less than organic HAP emissions from lean premix gas-fired turbines. We have these expectations based on the fact that dual-fuel units using oxidation catalyst systems operate on distillate oil and the

fact that catalyst vendors indicate that oxidation catalyst systems operate equally well on either fuel. Therefore, we used the best performing turbine from the lean premix gas-fired turbine subcategory to set the MACT floor for lean premix oil-fired turbines. As a result, the MACT floor for organic HAP for new stationary lean premix oil-fired turbines is an emission limit of 91 ppbvd formaldehyde at 15 percent oxygen.

We are not aware of any similar sources which are equipped with emission control devices that could also reduce emissions of metallic HAP. We also examined the inventory database in an attempt to identify any operating modifications which might reduce metal emissions, but could not identify any such practices. We also referred to the inventory database to determine if any similar sources are equipped with emission controls for the reduction of particulate matter (PM) which would also reduce metal emissions. No such units were found in the inventory database and none were identified by commenters during the public comment period. For this reason, the MACT floor for new stationary lean premix oil-fired turbines is no emission control for metallic HAP emissions.

We were unable to identify any beyond-the-floor regulatory alternatives for new stationary lean premix oil-fired turbines. We know of no emission control technology currently available which can reduce HAP emissions to levels lower than those achieved through use of an oxidation catalyst. We also have not identified any add-on controls for metallic HAP. We conclude, therefore, that MACT for new lean premix oil-fired turbines would be equivalent to the MACT floor, *i.e.*, an emission limit of 91 ppbvd formaldehyde at 15 percent oxygen organic HAP, and no emission reduction for metallic HAP.

New Diffusion Flame Gas-Fired Turbines

In the proposed rule, we requested sources to submit any HAP emissions test data available from stationary combustion turbines. After the proposal, we also contacted several State agencies to request emissions test data from diffusion flame combustion turbines. Due to the CARB advisory issued on April 28, 2000, which stated that formaldehyde emissions data where the NO_X levels were greater than 50 ppmvd were suspect and should be flagged as non-quantitative, we conducted an analysis of existing diffusion flame emissions test data. Tests where the NO_X emissions were greater than 50 ppm or tests where the NO_X levels were unknown were excluded from our analysis. Most of the diffusion flame tests in the emissions database were unable to pass the screening. Therefore, we specifically requested States to provide test reports for diffusion flame combustion turbines where Method 320 was used, or CARB 430 was used and the NO_X emissions were below 50 ppmvd. During the comment period we received three additional test reports for testing conducted on a total of five stationary diffusion flame combustion turbines.

To identify the MACT floor for new stationary diffusion flame gas-fired turbines, we based our analysis on the performance of the best turbine. Individual HAP emissions are relatively homogeneous within the subcategory of stationary diffusion flame gas-fired turbines and any variation in HAP emissions cannot be readily controlled except by add-on control. The best performing turbine in this subcategory is equipped with an oxidation catalyst.

As previously indicated, formaldehyde is the HAP emitted in the highest concentrations from stationary combustion turbines and data show control of organic HAP emissions and formaldehyde emissions are related. We have, therefore, concluded that formaldehyde is an appropriate surrogate for all organic HAP emissions.

Formaldehyde was measured by CARB 430 at the outlet of the oxidation catalyst. We applied a bias factor of 1.7 to the formaldehyde concentration obtained by CARB 430 for the best performing turbine. The corrected outlet concentration of formaldehyde from the best performing turbine was 15 ppbvd. We only have one controlled test for this turbine, but we expect that similar variability would be associated with this turbine as was associated with the best performing lean premix turbine. Therefore, applying a factor of 5 to the formaldehyde concentration measured at the outlet of the best performing diffusion flame turbine is appropriate to account for variability. Therefore, we would establish a formaldehyde emission limitation of 75 ppbvd based on the outlet of the control device. However, with a similar control system, we would expect that the emission limit should be no lower than the emission limit for lean premix turbines since diffusion flame turbines on average emit more HAP. The MACT floor for new stationary diffusion flame combustion gas-fired turbines is, therefore, an emission limit of 91 ppbvd formaldehyde at 15 percent oxygen.

We were unable to identify any beyond-the-floor regulatory alternatives for new stationary diffusion flame gas-fired turbines. We know of no emission control technology currently available which can reduce organic HAP emissions to levels lower than that achieved through the use of an oxidation catalyst. We concluded, therefore, that MACT for organic HAP emissions from new diffusion flame stationary gas-fired turbines is equivalent to the MACT floor, *i.e.*, an emission limit of 91 ppbvd formaldehyde at 15 percent oxygen.

New Diffusion Flame Oil-Fired Turbines

To determine the MACT floor for new diffusion flame oil-fired turbines, we again based our analysis on the best performing turbine. Emissions of each individual HAP are relatively homogeneous within stationary diffusion flame oil-fired turbines and any variation in HAP emissions cannot be readily controlled except by add-on control. The best performing turbine in this subcategory is equipped with an oxidation catalyst.

As previously described in more detail, we are using formaldehyde as a surrogate for all organic HAP emissions. The formaldehyde was measured with EPA Method 0011 at the outlet of the control device. The EPA Method 0011 is similar to CARB 430 and the problems associated with CARB 430 are expected to be associated with EPA Method 0011. So again we applied a bias factor of 1.7 to the formaldehyde outlet concentration of the best performing diffusion flame oil-fired turbine. The corrected formaldehyde concentration from this turbine is 44 ppbvd. We only had one controlled test for this turbine, but would expect some variability as has been shown with other turbines. However, since formaldehyde emissions from distillate oil fired turbines are lower on average by a factor of 1.4, we do not believe that the MACT emission limit should be set higher than the emission limit for new stationary diffusion flame gas-fired turbines. Therefore, the MACT floor for organic HAP for new stationary diffusion flame oil-fired turbines is an emission limit of 91 ppbvd formaldehyde at 15 percent oxygen.

We examined the inventory database to identify any operating practices which could affect metal emissions. We were unable to identify any such practices. We also determined that no similar sources are equipped with emission control devices for the reduction of PM which could also reduce metal emissions. Therefore, the MACT floor for metallic HAP for new diffusion flame oil-fired turbines is no emission reduction.

To determine MACT for new stationary diffusion oil-fired turbines, we tried to identify beyond-the-floor options. There are currently no beyond-the-floor regulatory alternatives for this subcategory as we know of no emission control technology current available that can reduce organic HAP emissions to levels lower than that obtained with the use of an oxidation catalyst. We also have not identified any add-on controls for metallic HAP. We conclude, therefore, that MACT for new diffusion flame oil-fired turbines would be equivalent to the MACT floor, *i.e.*, an emission limit of 91 ppbvd formaldehyde at 15 percent oxygen organic HAP, and no emission reduction for metallic HAP.

Other Subcategories

Although the final rule will apply to all stationary combustion turbines located at major sources of HAP emissions, emergency stationary combustion turbines, stationary combustion turbines which burn landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis or where gasified MSW is used to generate 10 percent or more of the gross heat input to the stationary combustion turbine on an annual basis, stationary combustion turbines of less than 1 MW rated peak power output, and stationary combustion turbines located on the North Slope of Alaska are not required to meet the emission limitations or operating limitations.

For each of the other subcategories of stationary combustion turbines, we have concerns about the applicability of emission control technology. For example, emergency stationary combustion turbines operate infrequently. In addition, when called upon to operate they must respond immediately without failure and without lengthy startup periods. This infrequent operation limits the applicability of HAP emission control technology.

Landfill and digester gases contain a family of silicon based gases called siloxanes. Siloxanes are also a component of municipal waste. Combustion of siloxanes forms compounds that can foul post-combustion catalysts, rendering catalysts inoperable within a very short period of time. It is our judgment based on public comments that firing even 10 percent landfill or digester gas will cause fouling that will render the oxidation catalyst inoperable within a short period of time. Pretreatment of exhaust gases to remove siloxanes was investigated. However, no pretreatment systems are in use and their long term effectiveness is unknown. We also considered fuel switching for this subcategory of turbines. Switching to a different fuel such as natural gas or diesel would potentially allow the turbine to apply an oxidation catalyst emission control device. However, fuel switching would defeat the purpose of using this type of fuel which would then either be allowed to escape uncontrolled or would be burned in a flare with no energy recovery. We believe that switching landfill or digester gas or gasified MSW to another fuel is inappropriate and is an environmentally inferior option.

For stationary combustion turbines of less than 1 MW rated peak power output, we have concerns about the effectiveness of scaling down the oxidation catalyst emission control technology. Just as there are often unforeseen problems associated with scaling up a technology, there can be problems associated with scaling down a technology.

Stationary combustion turbines located on the North Slope of Alaska have been identified as a subcategory due to operation limitations and uncertainties regarding the application of controls to these units. There are very few of these units; in addition, none have installed emission controls for the reduction of HAP.

As a result, we identified subcategories for each of these types of stationary combustion turbines and investigated MACT floors and MACT for each subcategory. As expected, since we identified these types of stationary combustion turbines as separate subcategories based on concerns about the applicability of emission control technology, we found no stationary combustion turbines in these subcategories using any emission control technology to reduce HAP emissions. As discussed above, we are not aware of any work practices that might constitute a MACT floor, nor did we find that the use of a particular fuel results in HAP emission reductions. The MACT floor, therefore, for each of these subcategories is no emission reduction.

Despite our concerns with the applicability of emission control technology, we examined the cost per ton of HAP removed for these subcategories. This analysis can be found in the docket (Docket ID No. OAR–2002–0060 (A–95–51)) for the final rule. Whether our concerns are warranted or not, we consider the incremental cost per ton of HAP removed excessive—primarily because of the very small reduction in HAP emissions that would result.

We also considered the non-air health, environmental, and energy impacts of an oxidation catalyst system, as discussed previously in this preamble, and concluded that there would be only a small energy impact and no non-air health or environmental impacts. However, as stated above, we did not adopt this regulatory option due to cost considerations and concerns about the applicability of this technology to these subcategories. We were not able to identify any other means of achieving HAP emission reduction for these subcategories.

As a result, for all of these reasons, we conclude that MACT for these subcategories is the MACT floor (*i.e.*, no emission reduction).

F. How Did We Select the Initial Compliance Requirements?

New and reconstructed sources complying with the emission limitation for formaldehyde emissions are required to conduct an initial performance test. The purpose of the initial test is to demonstrate initial compliance with the formaldehyde emission limitation.

G. How Did We Select the Continuous Compliance Requirements?

If you must comply with the emission limitations, continuous compliance with these requirements is required at all times except during startup, shutdown, and malfunction of your stationary combustion turbine. You are required to develop a startup, shutdown, and malfunction plan.

We considered requiring FTIR CEMS; however, we concluded that the costs of FTIR CEMS were excessive and were not yet demonstrated at the low formaldehyde levels of the standards. We considered requiring those sources to continuously monitor operating load to demonstrate continuous compliance because the data establishing the formaldehyde outlet concentration level are based on tests that were done at high loads. However, we believe that the performance of a stationary combustion turbine at high load is also indicative of its operation at lower loads. In fact, the operator can make no parameter adjustments that would lead to lower emissions.

For these reasons, EPA determined that it would be appropriate to require sources that comply with the emission limitation for formaldehyde emissions and that use an oxidation catalyst emission control device to continuously monitor the oxidation catalyst inlet temperature. Continuously monitoring the oxidation catalyst inlet temperature and maintaining this temperature within the range recommended by the

catalyst manufacturer will ensure proper operation of the oxidation catalyst emission control device and continuous compliance with the emission limitation for formaldehyde.

Sources that do not use an oxidation catalyst emission control device are required to petition the Administrator for approval of operating limitations or approval of no operating limitations.

H. How Did We Select the Testing Methods To Measure These Low Concentrations of Formaldehyde?

The final rule requires the use of Method 320 or ASTM D6348–03 to determine compliance with the emission limitation for formaldehyde. With regard to formaldehyde, we believe systems meeting the requirements of Method 320, a self-validating FTIR method, can be used to attain detection limits for formaldehyde concentrations well below the current emission limitations with a path length of 10 meters or less. Some of the older technology may require 100 or even 200 meter path lengths. We expect state-of-the-art digital signal processing (to reduce signal to noise ratio) would be needed. Method 320 also includes formaldehyde spike recovery criteria, which require spike recoveries of 70 to 130 percent.

While we believe FTIR systems can meet the requirements of Method 320 and measure formaldehyde concentrations at these low levels, we have limited experience with their use. As a result, we solicited comments on the ability and use of FTIR systems to meet the validation and quality assurance requirements of Method 320 for the purpose of determining compliance with the emission limitation for formaldehyde. Commenters were generally in agreement that Method 320 is the most accurate and reliable test method currently available to test for formaldehyde emissions from the stationary combustion turbine exhaust.

We are also allowing the use of ASTM D6348–03 in the final rule to determine compliance with the emission limitation for formaldehyde. As mentioned in the preamble to the proposed rule, the method was reviewed by the EPA as a potential alternative to Method 320. Suggested revisions to ASTM D6348–98 were sent to ASTM by the EPA that would allow the EPA to accept ASTM D6348–98 as an acceptable alternative. The ASTM has revised the method following EPA's suggested revisions. The EPA has determined that the revised method, ASTM D6348–03, "Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy," is an acceptable alternative to Method 320 for formaldehyde measurement.

As an alternative to Method 320, we proposed Method 323 for natural gas-fired sources. Method 323 uses the acetyl acetone colorimetric method to measure formaldehyde emissions in the exhaust of natural gas-fired, stationary combustion sources. Commenters did not support Method 323 and were concerned whether this method could provide reliable results. In addition, Method 323 has not been validated or demonstrated for use on stationary combustion turbines emitting low formaldehyde emissions. Therefore, Method 323 has not been included as a compliance method for formaldehyde in the final rule.

At proposal we believed CARB Method 430 and EPA SW–846 Method 0011 were capable of measuring formaldehyde concentrations at these low levels. Commenters were not supportive of these methods. In addition, CARB 430 is susceptible to interferences and sample loss contributes to large measurement variability. Method 0011 uses a similar analytical approach to CARB 430 and has many shortcomings and limited application opportunities. Accordingly, we are not including CARB 430 and Method 0011 in the final rule.

For these reasons, EPA has specified that Method 320 or ASTM D6348–03 should be used to determine compliance with the formaldehyde emission limitation in the final rule.

I. How Did We Select the Notification, Recordkeeping and Reporting Requirements?

The notification, recordkeeping, and reporting requirements are based on the NESHAP General Provisions of 40 CFR part 63.

V. Summary of Environmental, Energy and Economic Impacts

We estimate that 20 percent of the stationary combustion turbines affected by the final rule will be located at major sources. As a result, the environmental, energy, and economic impacts presented in this preamble reflect these estimates.

The outcome of the petition to delist certain subcategories which has been submitted to EPA could significantly affect the estimated impacts of the final rule. If approved, the delisting could significantly decrease the number of sources affected by the final rule and could affect the final emission estimates. Thus, the estimated impacts could change.

A. What Are the Air Quality Impacts?

The final rule will reduce total national HAP emissions by an estimated 98 tpy in the 5th year after the standards are promulgated. The emission reduction achieved by the final rule would be due to the sources that install an oxidation catalyst control system. We estimate that all new stationary combustion turbines will install oxidation catalyst control to comply with the standards.

To estimate air impacts, national HAP emissions in the absence of the final rule (*i.e.*, HAP emission baseline) were calculated. We then assumed a HAP reduction of 90 percent, achieved by using oxidation catalyst emission control devices to comply with the formaldehyde emission limitation, and applied this reduction to the baseline HAP emissions to estimate total national HAP emission reduction. The total national HAP emission reduction is the sum of formaldehyde, acetaldehyde, benzene, and toluene emissions reductions. In addition to HAP emission reduction, the final rule will reduce criteria air pollutant emissions, primarily CO emissions.

B. What Are the Cost Impacts?

The national total annualized cost of the final rule in the 5th year following promulgation is estimated to be about $43 million. Approximately $147,400 of that amount is the estimated annualized cost for monitoring, recordkeeping, and reporting. To calculate the annualized control costs, we obtained estimates of the capital costs of oxidation catalyst emission control devices from vendors. We then calculated the national total annualized costs of control for the new stationary combustion turbines installing oxidation catalyst emission control in the next 5 years. Our projection of new stationary combustion turbine capacity that will come online during the next 5 years is based on estimates from the Department of Energy indicating that 218 new stationary combustion turbines will begin operation between 2002 and 2007.

C. What Are the Economic Impacts?

The EPA prepared an economic impact analysis to evaluate the impacts the final rule would have on combustion turbines producers, consumers of goods and services produced by combustion turbines, and society. The analysis shows minimal changes in prices and output for products made by the 24 industries affected by the final rule. The price increase for affected output is less than 0.02 percent and the reduction in output

is less than 0.02 percent for each affected industry. Estimates of impacts on fuel markets show price increases of less than 0.06 percent for petroleum products and natural gas, and price increases of 0.53 and 0.72 percent for base-load and peak-load electricity, respectively. The price of coal is expected to decline by about 0.24 percent, and this is due to a small reduction in demand for this fuel type. Reductions in output are expected to be less than 0.67 percent for each energy type, including base-load and peak-load electricity. The social costs of the final rule are estimated at $7.8 million (1998 dollars). Social costs include the compliance costs, but also include those costs that reflect changes in the national economy due to changes in consumer and producer behavior in response to the compliance costs associated with a regulation. In this case, changes in energy use among both consumers and producers to reduce the impact of the regulatory requirements of the final rule lead to the estimated social costs being somewhat less than the total annualized compliance cost estimate of $43 million (1998$). The primary reason for the lower social cost estimate is the increase in electricity supply generated by existing unaffected sources, which mostly offsets the impact of increased electricity prices to consumers.

For more information on these impacts, please refer to the economic impact analysis in the public docket.

D. What Are the Non-Air Health, Environmental and Energy Impacts?

The only energy requirement is a small increase in fuel consumption resulting from back pressure caused by operating an oxidation catalyst emission control device. This energy impact is small in comparison to the costs of other impacts. There are no known non-air environmental or health impacts as a result of the implementation of the final rule.

VI. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), we must determine whether a regulatory action is "significant" and, therefore, subject to review by the Office of Management and Budget (OMB) and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligation of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, we have determined that the final rule is a "significant regulatory action" within the meaning of the Executive Order. As such, this action was submitted to OMB for review. Changes made in response to OMB suggestions or recommendations are included in the docket.

B. Paperwork Reduction Act

The information collection requirements in the final rule have been submitted for approval to the Office of Management and Budget under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The information requirements are not enforceable until OMB approves them.

The information requirements are based on notification, recordkeeping, and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A), which are mandatory for all operators subject to national emission standards. These recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414). All information submitted to EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to Agency policies set forth in 40 CFR part 2, subpart B.

The final rule will require maintenance inspections of the control devices but will not require any notifications or reports beyond those required by the General Provisions. The recordkeeping requirements require only the specific information needed to determine compliance.

The annual monitoring, reporting, and recordkeeping burden for this collection (averaged over the first 3 years after the effective date of the final rule) is estimated to be 2,448 labor hours per year at a total annual cost of $333,450. This estimate includes a one-time performance test, semiannual excess emission reports, maintenance inspections, notifications, and recordkeeping. Total capital/startup costs associated with the monitoring requirements over the 3-year period of the ICR are estimated at $22,500, with no operation and maintenance costs.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR part 9. When this ICR is approved by OMB, the Agency will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number for the approved information collection requirements contained in this final rule.

C. Regulatory Flexibility Act

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the final rule. The EPA has also determined that the final rule will not have a significant economic impact on a substantial number of small entities.

For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) A small business whose parent company has fewer than 100 or 1,000 employees, or fewer than 4 billion kW-hr per year of electricity usage, depending on size definition for the affected North American Industry Classification System (NAICS) code; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. It should be noted that small entities in 6 NAICS codes are affected by the final rule, and the small

business definition applied to each industry by NAICS code is that listed in the Small Business Administration (SBA) size standards (13 CFR 121).

After considering the economic impacts of today's final rule on small entities, EPA has concluded that this action will not have a significant economic impact on a substantial number of small entities. We have determined, based on the existing combustion turbines inventory, that 29 small entities out of 300 in the industries impacted by the final rule may be affected. None of these small entities will incur control costs associated with the final rule, but will incur monitoring, recordkeeping, and reporting costs and the costs of performance testing. These 29 small entities own 51 affected turbines in the existing combustion turbines inventory, which represents 2.5 percent of the existing turbines overall. Of these entities, 22 of these entities are small communities and 7 are affected small firms. None of the 29 affected small entities are estimated to have compliance costs that exceed one-half of 1 percent of their revenues. The median compliance costs to affected small entities is 0.07 percent of sales. In addition, the final rule is likely to also increase profits at the many small firms and increase revenues for the many small communities using combustion turbines that are not affected by the final rule as a result of the very slight increase in market prices.

It should be noted that it is likely that the ongoing deregulation of the electric power industry across the nation should minimize the rule's impacts on small entities. Increased competition in the electric power industry is forecasted to decrease the market price for wholesale electric power. It is likely that open access to the grid and lower market prices for electricity will make it less attractive for local communities to purchase and operate new combustion turbines. For more information on the results of the analysis of small entity impacts, please refer to the economic impact analysis in the docket.

Although the final rule will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has tried to reduce the impact of the final rule on small entities. In the final rule, the Agency is applying the minimum level of control and the minimum level of monitoring, recordkeeping, and reporting to affected sources allowed by the Clean Air Act. Existing stationary combustion turbines have no emission requirements. In addition, as mentioned earlier in the preamble, new turbines with capacities under 1.0 MW are not subject to the final rule. This provision should reduce the level of small entity impacts.

D. Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, we generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any 1 year. Before promulgating a rule for which a written statement is needed, section 205 of the UMRA generally requires us to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows us to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before we establish any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, we must develop a small government agency plan under section 203 of the UMRA. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that the final rule contains a Federal mandate that will not result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. The highest cost in any 1 year is less than $43 million. Thus, today's rule is not subject to the requirements of sections 202 and 205 of the UMRA.

Although not required by the UMRA, we have consulted with State and local air pollution control officials. We also have held meetings on the rule with many of the stakeholders from numerous individual companies, environmental groups, consultants and vendors, labor unions, and other interested parties. We have added materials to the Air docket to document those meetings.

In addition, we have determined that the final rule contains no regulatory requirements that might significantly or uniquely affect small governments. Therefore, today's rule is not subject to the requirements of section 203 of the UMRA.

E. Executive Order 13132: Federalism

Executive Order 13132 (64 FR 43255, August 10, 1999) requires us to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" are defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

The final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. The final rule primarily affects private industry, and does not impose significant economic costs on State or local governments. Thus, Executive Order 13132 does not apply to the final rule.

Although not required by Executive Order 13132, we consulted with representatives of State and local governments to enable them to provide meaningful and timely input into the development of the final rule. This consultation took place during the ICCR committee meetings where members representing State and local governments participated in developing recommendations for EPA's combustion-related rules, including the final rule. The concerns raised by representatives of State and local governments were considered during the development of the final rule.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175 (65 FR 67249, November 6, 2000) requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of

regulatory policies that have tribal implications." "Policies that have tribal implications" is defined in the Executive Order to include regulations that have "substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes."

The final rule does not have tribal implications. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175. Thus, Executive Order 13175 does not apply to the final rule.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that we have reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, we must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives.

We interpret Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The final rule is not subject to Executive Order 13045 because it is based on technology performance and not on health or safety risks.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This rule is not a "significant energy action" as defined in Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 Fed. Reg. 28355 (May 22, 2001)) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. The basis for this determination is provided below.

The increase in petroleum product output, which includes increases in fuel production, is estimated at 0.013 percent, or about 2,003 barrels per day based on 2000 U.S. fuel production nationwide. The reduction in coal production is estimated at 0.00007 percent, or about 7,936 short tons per year based on 2000 U.S. coal production nationwide. The reduction in electricity output is estimated at 0.083 percent, or about 20.4 billion kilowatt-hours per year based on 2000 U.S. electricity production nationwide. Production of natural gas is expected to increase by 11.7 million cubic feet (ft^3) per day. The maximum of all energy price increases, which include increases in natural gas prices as well as those for petroleum products, coal, and electricity, is estimated to be the 0.71 percent increase in peak-load electricity rates nationwide. Energy distribution costs may increase by roughly no more than the same amount as electricity rates. We expect that there will be no discernable impact on the import of foreign energy supplies, and no other adverse outcomes are expected to occur with regards to energy supplies. Also, the increase in cost of energy production should be minimal given the very small increase in fuel consumption resulting from back pressure related to operation of oxidation catalyst emission control devices. All of the estimates presented above account for some passthrough of costs to consumers as well as the direct cost impact to producers. For more information on these estimated energy effects, please refer to the economic impact analysis for the final rule. This analysis is available in the public docket.

No new combustion turbines with a capacity of less than 1.0 MW will be affected. Also, the control level applied to affected new combustion turbines is the minimum that can be applied consistent with the provisions of the Clean Air Act.

Therefore, we conclude that the final rule when implemented will not have a significant adverse effect on the supply, distribution, or use of energy.

I. National Technology Transfer and Advancement Act

As noted in the proposed rule, section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Public Law No. 104–113; 15 U.S.C. 272 note) directs the EPA to use voluntary consensus standards in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to the Office of Management and Budget (OMB), with explanations when an agency does not use available and applicable voluntary consensus standards.

The final rule involves technical standards. The EPA cites the following standards in the final rule: EPA Methods 1, 1A, 3A, 3B, 4, and 320. Consistent with the NTTAA, EPA conducted searches to identify voluntary consensus standards in addition to these EPA methods. No applicable voluntary consensus standards were identified for EPA Method 1A. The search and review results have been documented and are placed in the docket (Docket ID No. OAR–2002–0060 (A–95–51)) for the final rule.

The search for emissions measurement procedures identified six voluntary consensus standards. The EPA determined that five of these six standards identified for measuring emissions of the HAP or surrogates subject to emission standards in the final rule were impractical alternatives to EPA test methods for the purposes of the rule. Therefore, EPA does not intend to adopt these standards for this purpose. (See Docket ID No. OAR–2002–0060 (A–95–51) for further information on the methods.)

The voluntary consensus standard ASTM D6348–03, "Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy," is an acceptable alternative to EPA Method 320 for formaldehyde measurement provided that, in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130.

Section 63.6120 and Table 3 to subpart YYYY of the final rule list the EPA testing methods included in the regulation. Under §§ 63.7(f) and 63.8(f) of subpart A of the General Provisions, a source may apply to EPA for permission to use alternative test methods or alternative monitoring requirements in place of any of the EPA testing methods, performance specifications, or procedures.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. section 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a

rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing today's final rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the comptroller General of the United States prior to publication of the rule in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2). The final rule will be effective on March 5, 2004.

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: August 29, 2003.

Marianne Lamont Horinko,

Acting Administrator.

■ For the reasons set out in the preamble, title 40, chapter I, part 63 of the Code of the Federal Regulations is amended as follows:

PART 63—[AMENDED]

■ 1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

■ 2. Part 63 is amended by adding subpart YYYY to read as follows:

Subpart YYYY—National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines

Sec.

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What This Subpart Covers

§ 63.6080 What is the purpose of subpart YYYY?

Subpart YYYY establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emissions from stationary combustion turbines located at major sources of HAP emissions, and requirements to demonstrate initial and continuous compliance with the emission and operating limitations.

§ 63.6085 Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary combustion turbine located at a major source of HAP emissions.

(a) Stationary combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle stationary combustion turbine, any regenerative/recuperative cycle stationary combustion turbine, the combustion turbine portion of any stationary cogeneration cycle combustion system, or the combustion turbine portion of any stationary combined cycle steam/electric generating system. Stationary means that the combustion turbine is not self propelled or intended to be propelled while performing its function, although it may be mounted on a vehicle for portability or transportability. Stationary combustion turbines covered by this subpart include simple cycle stationary combustion turbines, regenerative/recuperative cycle stationary combustion turbines, cogeneration cycle stationary combustion turbines, and combined cycle stationary combustion turbines. Stationary combustion turbines subject to this subpart do not include turbines located at a research or laboratory facility, if research is conducted on the turbine itself and the turbine is not being used to power other applications at the research or laboratory facility.

(b) A major source of HAP emissions is a contiguous site under common control that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

§ 63.6090 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary combustion turbine located at a major source of HAP emissions.

(1) *Existing stationary combustion turbine.* A stationary combustion turbine is existing if you commenced construction or reconstruction of the stationary combustion turbine on or before January 14, 2003. A change in ownership of an existing stationary combustion turbine does not make that stationary combustion turbine a new or reconstructed stationary combustion turbine.

(2) *New stationary combustion turbine.* A stationary combustion turbine is new if you commenced construction of the stationary

combustion turbine after January 14, 2003.

(3) *Reconstructed stationary combustion turbine.* A stationary combustion turbine is reconstructed if you meet the definition of reconstruction in § 63.2 of subpart A of this part and reconstruction is commenced after January 14, 2003.

(b) *Subcategories with limited requirements.*

(1) A new or reconstructed stationary combustion turbine located at a major source which meets either of the following criteria does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of § 63.6145(d):

(i) The stationary combustion turbine is an emergency stationary combustion turbine; or

(ii) The stationary combustion turbine is located on the North Slope of Alaska.

(2) A stationary combustion turbine which burns landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, or a stationary combustion turbine where gasified municipal solid waste (MSW) is used to generate 10 percent or more of the gross heat input on an annual basis does not have to meet the requirements of this subpart except for:

(i) The initial notification requirements of § 63.6145(d); and

(ii) Additional monitoring and reporting requirements as provided in § 63.6125(c) and § 63.6150.

(3) An existing, new, or reconstructed stationary combustion turbine with a rated peak power output of less than 1.0 megawatt (MW) at International Organization for Standardization (ISO) standard day conditions, which is located at a major source, does not have to meet the requirements of this subpart and of subpart A of this part. This determination applies to the capacities of individual combustion turbines, whether or not an aggregated group of combustion turbines has a common add-on air pollution control device. No initial notification is necessary, even if the unit appears to be subject to other requirements for initial notification. For example, a 0.75 MW emergency turbine would not have to submit an initial notification.

(4) Existing stationary combustion turbines in all subcategories do not have to meet the requirements of this subpart and of subpart A of this part. No initial notification is necessary for any existing stationary combustion turbine, even if a new or reconstructed turbine in the same category would require an initial notification.

(5) Combustion turbine engine test cells/stands do not have to meet the requirements of this subpart but may have to meet the requirements of subpart A of this part if subject to another subpart. No initial notification is necessary, even if the unit appears to be subject to other requirements for initial notification.

§ 63.6092 Are duct burners and waste heat recovery units covered by subpart YYYY?

No, duct burners and waste heat recovery units are considered steam generating units and are not covered under this subpart. In some cases, it may be difficult to separately monitor emissions from the turbine and duct burner, so sources are allowed to meet the required emission limitations with their duct burners in operation.

§ 63.6095 When do I have to comply with this subpart?

(a) *Affected sources.* (1) If you start up a new or reconstructed stationary combustion turbine which is a lean premix gas-fired stationary combustion turbine, a lean premix oil-fired stationary combustion turbine, a diffusion flame gas-fired stationary combustion turbine, or a diffusion flame oil-fired stationary combustion turbine as defined by this subpart on or before March 5, 2004, you must comply with the emission limitations and operating limitations in this subpart no later than March 5, 2004.

(2) If you start up a new or reconstructed stationary combustion turbine which is a lean premix gas-fired stationary combustion turbine, a lean premix oil-fired stationary combustion turbine, a diffusion flame gas-fired stationary combustion turbine, or a diffusion flame oil-fired stationary combustion turbine as defined by this subpart after March 5, 2004, you must comply with the emission limitations and operating limitations in this subpart upon startup of your affected source.

(b) *Area sources that become major sources.* If your new or reconstructed stationary combustion turbine is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, it must be in compliance with any applicable requirements of this subpart when it becomes a major source.

(c) You must meet the notification requirements in § 63.6145 according to the schedule in § 63.6145 and in 40 CFR part 63, subpart A.

Emission and Operating Limitations

§ 63.6100 What emission and operating limitations must I meet?

For each new or reconstructed stationary combustion turbine which is a lean premix gas-fired stationary combustion turbine, a lean premix oil-fired stationary combustion turbine, a diffusion flame gas-fired stationary combustion turbine, or a diffusion flame oil-fired stationary combustion turbine as defined by this subpart, you must comply with the emission limitations and operating limitations in Table 1 and Table 2 of this subpart.

General Compliance Requirements

§ 63.6105 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations and operating limitations which apply to you at all times except during startup, shutdown, and malfunctions.

(b) If you must comply with emission and operating limitations, you must operate and maintain your stationary combustion turbine, oxidation catalyst emission control device or other air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.

Testing and Initial Compliance Requirements

§ 63.6110 By what date must I conduct the initial performance tests or other initial compliance demonstrations?

(a) You must conduct the initial performance tests or other initial compliance demonstrations in Table 4 of this subpart that apply to you within 180 calendar days after the compliance date that is specified for your stationary combustion turbine in § 63.6095 and according to the provisions in § 63.7(a)(2).

(b) An owner or operator is not required to conduct an initial performance test to determine outlet formaldehyde concentration on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (b)(5) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

(5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

§ 63.6115 When must I conduct subsequent performance tests?

Subsequent performance tests must be performed on an annual basis as specified in Table 3 of this subpart.

§ 63.6120 What performance tests and other procedures must I use?

(a) You must conduct each performance test in Table 3 of this subpart that applies to you.

(b) Each performance test must be conducted according to the requirements of the General Provisions at § 63.7(e)(1) and under the specific conditions in Table 2 of this subpart.

(c) Do not conduct performance tests or compliance evaluations during periods of startup, shutdown, or malfunction. Performance tests must be conducted at high load, defined as 100 percent plus or minus 10 percent.

(d) You must conduct three separate test runs for each performance test, and each test run must last at least 1 hour.

(e) If your stationary combustion turbine is not equipped with an oxidation catalyst, you must petition the Administrator for operating limitations that you will monitor to demonstrate compliance with the formaldehyde emission limitation in Table 1. You must measure these operating parameters during the initial performance test and continuously monitor thereafter. Alternatively, you may petition the Administrator for approval of no additional operating limitations. If you submit a petition under this section, you must not conduct the initial performance test until after the petition has been approved or disapproved by the Administrator.

(f) If your stationary combustion turbine is not equipped with an oxidation catalyst and you petition the Administrator for approval of additional operating limitations to demonstrate compliance with the formaldehyde emission limitation in Table 1, your petition must include the following information described in paragraphs (f)(1) through (5) of this section.

(1) Identification of the specific parameters you propose to use as additional operating limitations;

(2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters and how limitations on these parameters will serve to limit HAP emissions;

(3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(g) If you petition the Administrator for approval of no additional operating limitations, your petition must include the information described in paragraphs (g)(1) through (7) of this section.

(1) Identification of the parameters associated with operation of the stationary combustion turbine and any emission control device which could change intentionally (*e.g.*, operator adjustment, automatic controller adjustment, etc.) or unintentionally (*e.g.*, wear and tear, error, etc.) on a routine basis or over time;

(2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;

(3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of why establishing limitations on the parameters is not possible;

(4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of why you could not establish upper and/or lower values for the parameters which would establish limits on the parameters as operating limitations;

(5) For the parameters which could change in such a way as to increase HAP emissions, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;

(6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and

(7) A discussion of why, from your point of view, it is infeasible, unreasonable or unnecessary to adopt the parameters as operating limitations.

§ 63.6125 What are my monitor installation, operation, and maintenance requirements?

(a) If you are operating a stationary combustion turbine that is required to comply with the formaldehyde emission limitation and you use an oxidation catalyst emission control device, you must monitor on a continuous basis your catalyst inlet temperature in order to comply with the operating limitations in Table 2 and as specified in Table 5 of this subpart.

(b) If you are operating a stationary combustion turbine that is required to comply with the formaldehyde emission limitation and you are not using an oxidation catalyst, you must continuously monitor any parameters specified in your approved petition to the Administrator, in order to comply with the operating limitations in Table 2 and as specified in Table 5 of this subpart.

(c) If you are operating a stationary combustion turbine which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, or a stationary combustion turbine where gasified MSW is used to generate 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your turbine in a manner which minimizes HAP emissions.

(d) If you are operating a lean premix gas-fired stationary combustion turbine or a diffusion flame gas-fired stationary combustion turbine as defined by this subpart, and you use any quantity of distillate oil to fire any new or existing stationary combustion turbine which is located at the same major source, you must monitor and record your distillate oil usage daily for all new and existing stationary combustion turbines located at the major source with a non-resettable hour meter to measure the number of hours that distillate oil is fired.

§ 63.6130 How do I demonstrate initial compliance with the emission and operating limitations?

(a) You must demonstrate initial compliance with each emission and operating limitation that applies to you according to Table 4 of this subpart.

(b) You must submit the Notification of Compliance Status containing results of the initial compliance demonstration according to the requirements in § 63.6145(f).

Continuous Compliance Requirements

§ 63.6135 How do I monitor and collect data to demonstrate continuous compliance?

(a) Except for monitor malfunctions, associated repairs, and required quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments of the monitoring system), you must conduct all parametric monitoring at all times the stationary combustion turbine is operating.

(b) Do not use data recorded during monitor malfunctions, associated repairs, and required quality assurance or quality control activities for meeting the requirements of this subpart, including data averages and calculations. You must use all the data collected during all other periods in assessing the performance of the control device or in assessing emissions from the new or reconstructed stationary combustion turbine.

§ 63.6140 How do I demonstrate continuous compliance with the emission and operating limitations?

(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Table 1 and Table 2 of this subpart according to methods specified in Table 5 of this subpart.

(b) You must report each instance in which you did not meet each emission imitation or operating limitation. You must also report each instance in which you did not meet the requirements in Table 7 of this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in § 63.6150.

(c) Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, and malfunction are not violations if you have operated your stationary combustion turbine in full conformity with all provisions of your startup, shutdown, and malfunction plan, and you have otherwise satisfied the general duty to minimize emissions established by § 63.6(e)(1)(i).

Notifications, Reports, and Records

§ 63.6145 What notifications must I submit and when?

(a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8(e), 63.8(f)(4), and 63.9(b) and (h) that apply to you by the dates specified.

(b) As specified in § 63.9(b)(2), if you start up your new or reconstructed stationary combustion turbine before March 5, 2004, you must submit an Initial Notification not later than 120 calendar days after March 5, 2004.

(c) As specified in § 63.9(b), if you start up your new or reconstructed stationary combustion turbine on or after March 5, 2004, you must submit an Initial Notification not later than 120 calendar days after you become subject to this subpart.

(d) If you are required to submit an Initial Notification but are otherwise not affected by the emission limitation requirements of this subpart, in accordance with § 63.6090(b), your notification must include the information in § 63.9(b)(2)(i) through (v) and a statement that your new or reconstructed stationary combustion turbine has no additional emission limitation requirements and must explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary combustion turbine).

(e) If you are required to conduct an initial performance test, you must submit a notification of intent to conduct an initial performance test at least 60 calendar days before the initial performance test is scheduled to begin as required in § 63.7(b)(1).

(f) If you are required to comply with the emission limitation for formaldehyde, you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii). For each performance test required to demonstrate compliance with the emission limitation for formaldehyde, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test.

§ 63.6150 What reports must I submit and when?

(a) Anyone who owns or operates a stationary combustion turbine which must meet the emission limitation for formaldehyde must submit a semiannual compliance report according to Table 6 of this subpart. The semiannual compliance report must contain the information described in paragraphs (a)(1) through (a)(4) of this section. The semiannual compliance report must be submitted by the dates specified in paragraphs (b)(1) through (b)(5) of this section, unless the Administrator has approved a different schedule.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) For each deviation from an emission limitation, the compliance report must contain the information in paragraphs (a)(4)(i) through (a)(4)(iii) of this section.

(i) The total operating time of each stationary combustion turbine during the reporting period.

(ii) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(iii) Information on the number, duration, and cause for monitor downtime incidents (including unknown cause, if applicable, other than downtime associated with zero and span and other daily calibration checks).

(b) Dates of submittal for the semiannual compliance report are provided in (b)(1) through (b)(5) of this section.

(1) The first semiannual compliance report must cover the period beginning on the compliance date specified in § 63.6095 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date specified in § 63.6095.

(2) The first semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified in § 63.6095.

(3) Each subsequent semiannual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each stationary combustion turbine that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established the date for submitting annual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) If you are operating as a stationary combustion turbine which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, or a stationary

combustion turbine where gasified MSW is used to generate 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 6 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (d)(1) through (5) of this section. You must report the data specified in (c)(1) through (c)(3) of this section.

(1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas, digester gas, or gasified MSW is equivalent to 10 percent or more of the total fuel consumption on an annual basis.

(2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.

(3) Any problems or errors suspected with the meters.

(d) Dates of submittal for the annual report are provided in (d)(1) through (d)(5) of this section.

(1) The first annual report must cover the period beginning on the compliance date specified in § 63.6095 and ending on December 31.

(2) The first annual report must be postmarked or delivered no later than January 31.

(3) Each subsequent annual report must cover the annual reporting period from January 1 through December 31.

(4) Each subsequent annual report must be postmarked or delivered no later than January 31.

(5) For each stationary combustion turbine that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established the date for submitting annual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (d)(1) through (4) of this section.

(e) If you are operating a lean premix gas-fired stationary combustion turbine or a diffusion flame gas-fired stationary combustion turbine as defined by this subpart, and you use any quantity of distillate oil to fire any new or existing stationary combustion turbine which is located at the same major source, you must submit an annual report according to Table 6 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (d)(1) through (5) of this section. You must report the data specified in (e)(1) through (e)(3) of this section.

(1) The number of hours distillate oil was fired by each new or existing stationary combustion turbine during the reporting period.

(2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.

(3) Any problems or errors suspected with the meters.

§ 63.6155 What records must I keep?

(a) You must keep the records as described in paragraphs (a)(1) through (5).

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in § 63.10(b)(2)(xiv).

(2) Records of performance tests and performance evaluations as required in § 63.10(b)(2)(viii).

(3) Records of the occurrence and duration of each startup, shutdown, or malfunction as required in § 63.10(b)(2)(i).

(4) Records of the occurrence and duration of each malfunction of the air pollution control equipment, if applicable, as required in § 63.10(b)(2)(ii).

(5) Records of all maintenance on the air pollution control equipment as required in § 63.10(b)(iii).

(b) If you are operating a stationary combustion turbine which fires landfill gas, digester gas or gasified MSW equivalent to 10 percent or more of the gross heat input on an annual basis, or if you are operating a lean premix gas-fired stationary combustion turbine or a diffusion flame gas-fired stationary combustion turbine as defined by this subpart, and you use any quantity of distillate oil to fire any new or existing stationary combustion turbine which is located at the same major source, you must keep the records of your daily fuel usage monitors.

(c) You must keep the records required in Table 5 of this subpart to show continuous compliance with each operating limitation that applies to you.

§ 63.6160 In what form and how long must I keep my records?

(a) You must maintain all applicable records in such a manner that they can be readily accessed and are suitable for inspection according to § 63.10(b)(1).

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must retain your records of the most recent 2 years on site or your records must be accessible on site. Your records of the remaining 3 years may be retained off site.

Other Requirements and Information

§ 63.6165 What parts of the General Provisions apply to me?

Table 7 of this subpart shows which parts of the General Provisions in § 63.1 through 15 apply to you.

§ 63.6170 Who implements and enforces this subpart?

(a) This subpart is implemented and enforced by the U.S. EPA or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out whether this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under section 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are:

(1) Approval of alternatives to the emission limitations or operating limitations in § 63.6100 under § 63.6(g).

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

(5) Approval of a performance test which was conducted prior to the effective date of the rule to determine outlet formaldehyde concentration, as specified in § 63.6110(b).

§ 63.6175 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA; in 40 CFR 63.2, the General Provisions of this part; and in this section:

Area source means any stationary source of HAP that is not a major source as defined in this part.

Associated equipment as used in this subpart and as referred to in section 112(n)(4) of the CAA, means equipment associated with an oil or natural gas

exploration or production well, and includes all equipment from the well bore to the point of custody transfer, except glycol dehydration units, storage vessels with potential for flash emissions, combustion turbines, and stationary reciprocating internal combustion engines.

CAA means the Clean Air Act (42 U.S.C. 7401 *et seq.*, as amended by Public Law 101–549, 104 Stat. 2399).

Cogeneration cycle stationary combustion turbine means any stationary combustion turbine that recovers heat from the stationary combustion turbine exhaust gases using an exhaust heat exchanger, such as a heat recovery steam generator.

Combined cycle stationary combustion turbine means any stationary combustion turbine that recovers heat from the stationary combustion turbine exhaust gases using an exhaust heat exchanger to generate steam for use in a steam turbine.

Combustion turbine engine test cells/stands means engine test cells/stands, as defined in subpart PPPPP of this part, that test stationary combustion turbines.

Compressor station means any permanent combination of compressors that move natural gas at increased pressure from fields, in transmission pipelines, or into storage.

Custody transfer means the transfer of hydrocarbon liquids or natural gas: after processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit;

(3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless of whether or not such failure is permitted by this subpart; or

(4) Fails to conform to any provision of the applicable startup, shutdown, or malfunction plan, or to satisfy the general duty to minimize emissions established by § 63.6(e)(1)(i).

Diffusion flame gas-fired stationary combustion turbine means:

(1)(i) Each stationary combustion turbine which is equipped only to fire gas using diffusion flame technology,

(ii) Each stationary combustion turbine which is equipped both to fire gas using diffusion flame technology and to fire oil, during any period when it is firing gas, and

(iii) Each stationary combustion turbine which is equipped both to fire gas using diffusion flame technology and to fire oil, and is located at a major source where all new, reconstructed, and existing stationary combustion turbines fire oil no more than an aggregate total of 1000 hours during the calendar year.

(2) Diffusion flame gas-fired stationary combustion turbines do not include:

(i) Any emergency stationary combustion turbine,

(ii) Any stationary combustion turbine located on the North Slope of Alaska, or

(iii) Any stationary combustion turbine burning landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, or any stationary combustion turbine where gasified MSW is used to generate 10 percent or more of the gross heat input on an annual basis.

Diffusion flame oil-fired stationary combustion turbine means:

(1)(i) Each stationary combustion turbine which is equipped only to fire oil using diffusion flame technology, and

(ii) Each stationary combustion turbine which is equipped both to fire oil using diffusion flame technology and to fire gas, and is located at a major source where all new, reconstructed, and existing stationary combustion turbines fire oil more than an aggregate total of 1000 hours during the calendar year, during any period when it is firing oil.

(2) Diffusion flame oil-fired stationary combustion turbines do not include:

(i) Any emergency stationary combustion turbine, or

(ii) Any stationary combustion turbine located on the North Slope of Alaska.

Diffusion flame technology means a configuration of a stationary combustion turbine where fuel and air are injected at the combustor and are mixed only by diffusion prior to ignition.

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO_2.

Distillate oil means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is fuel oil number 2.

Emergency stationary combustion turbine means any stationary combustion turbine that operates in an emergency situation. Examples include stationary combustion turbines used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility is interrupted, or stationary combustion turbines used to pump water in the case of fire or flood, etc. Emergency stationary combustion turbines do not include stationary combustion turbines used as peaking units at electric utilities or stationary combustion turbines at industrial facilities that typically operate at low capacity factors. Emergency stationary combustion turbines may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are required by the manufacturer, the vendor, or the insurance company associated with the turbine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary combustion turbines.

Glycol dehydration unit means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes "rich" glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The "lean" glycol is then recycled.

Hazardous air pollutant (HAP) means any air pollutant listed in or pursuant to section 112(b) of the CAA.

ISO standard day conditions means 288 degrees Kelvin (15°C), 60 percent relative humidity and 101.3 kilopascals pressure.

Landfill gas means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO_2.

Lean premix gas-fired stationary combustion turbine means:

(1)(i) Each stationary combustion turbine which is equipped only to fire gas using lean premix technology,

(ii) Each stationary combustion turbine which is equipped both to fire gas using lean premix technology and to

fire oil, during any period when it is firing gas, and

(iii) Each stationary combustion turbine which is equipped both to fire gas using lean premix technology and to fire oil, and is located at a major source where all new, reconstructed, and existing stationary combustion turbines fire oil no more than an aggregate total of 1000 hours during the calendar year.

(2) Lean premix gas-fired stationary combustion turbines do not include:

(i) Any emergency stationary combustion turbine,

(ii) Any stationary combustion turbine located on the North Slope of Alaska, or

(iii) Any stationary combustion turbine burning landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, or any stationary combustion turbine where gasified MSW is used to generate 10 percent or more of the gross heat input on an annual basis.

Lean premix oil-fired stationary combustion turbine means:

(1)(i) Each stationary combustion turbine which is equipped only to fire oil using lean premix technology, and

(ii) Each stationary combustion turbine which is equipped both to fire oil using lean premix technology and to fire gas, and is located at a major source where all new, reconstructed, and existing stationary combustion turbines fire oil more than an aggregate total of 1000 hours during the calendar year, during any period when it is firing oil.

(2) Lean premix oil-fired stationary combustion turbines do not include:

(i) Any emergency stationary combustion turbine, or

(ii) Any stationary combustion turbine located on the North Slope of Alaska.

Lean premix technology means a configuration of a stationary combustion turbine where the air and fuel are thoroughly mixed to form a lean mixture for combustion in the combustor. Mixing may occur before or in the combustion chamber.

Major source, as used in this subpart, shall have the same meaning as in § 63.2, except that:

(1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;

(2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in this section, shall not be aggregated;

(3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and

(4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in this section, shall not be aggregated.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner which causes or has the potential to cause the emission limitations in this standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Municipal solid waste as used in this subpart is as defined in § 60.1465 of Subpart AAAA of 40 CFR Part 60, New Source Performance Standards for Small Municipal Waste Combustion Units.

Natural gas means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. May be field or pipeline quality. For the purposes of this subpart, the definition of natural gas includes similarly constituted fuels such as field gas, refinery gas, and syngas.

Natural gas transmission means the pipelines used for the long distance transport of natural gas (excluding processing). Specific equipment used in natural gas transmission includes the land, mains, valves, meters, boosters, regulators, storage vessels, dehydrators, compressors, and their driving units and appurtenances, and equipment used transporting gas from a production plant, delivery point of purchased gas, gathering system, storage area, or other wholesale source of gas to one or more distribution area(s).

Natural gas transmission and storage facility means any grouping of equipment where natural gas is processed, compressed, or stored prior to entering a pipeline to a local distribution company or (if there is no local distribution company) to a final end user. Examples of a facility for this source category are: an underground natural gas storage operation; or a natural gas compressor station that receives natural gas via pipeline, from an underground natural gas storage operation, or from a natural gas processing plant. The emission points associated with these phases include, but are not limited to, process vents. Processes that may have vents include, but are not limited to, dehydration and compressor station engines. Facility, for the purpose of a major source determination, means natural gas transmission and storage equipment that is located inside the boundaries of an individual surface site (as defined in this section) and is connected by ancillary equipment, such as gas flow lines or power lines. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Natural gas transmission and storage equipment or groupings of equipment located on different gas leases, mineral fee tracts, lease tracts, subsurface unit areas, surface fee tracts, or surface lease tracts shall not be considered part of the same facility.

North Slope of Alaska means the area north of the Arctic Circle (latitude 66.5 degrees North).

Oil and gas production facility as used in this subpart means any grouping of equipment where hydrocarbon liquids are processed, upgraded (*i.e.*, remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For purposes of a major source determination, facility (including a building, structure, or installation) means oil and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility. Examples of facilities in the oil and natural gas production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

Oxidation catalyst emission control device means an emission control

device that incorporates catalytic oxidation to reduce CO emissions.

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. For oil and natural gas production facilities subject to subpart HH of this part, the potential to emit provisions in § 63.760(a) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to § 63.1270(a)(1) and the maximum annual throughput for transmission facilities may be determined according to § 63.1270(a)(2).

Production field facility means those oil and gas production facilities located prior to the point of custody transfer.

Production well means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

Regenerative/recuperative cycle stationary combustion turbine means any stationary combustion turbine that recovers heat from the stationary combustion turbine exhaust gases using an exhaust heat exchanger to preheat the combustion air entering the combustion chamber of the stationary combustion turbine.

Research or laboratory facility means any stationary source whose primary purpose is to conduct research and development into new processes and products, where such source is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce, except in a *de minimis* matter.

Simple cycle stationary combustion turbine means any stationary combustion turbine that does not recover heat from the stationary combustion turbine exhaust gases.

Stationary combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle stationary combustion turbine, any regenerative/recuperative cycle stationary combustion turbine, the combustion turbine portion of any stationary cogeneration cycle combustion system, or the combustion turbine portion of any stationary combined cycle steam/electric generating system. Stationary means that the combustion turbine is not self propelled or intended to be propelled while performing its function. Stationary combustion turbines do not include turbines located at a research or laboratory facility, if research is conducted on the turbine itself and the turbine is not being used to power other applications at the research or laboratory facility.

Storage vessel with the potential for flash emissions means any storage vessel that contains a hydrocarbon liquid with a stock tank gas-to-oil ratio equal to or greater than 0.31 cubic meters per liter and an American Petroleum Institute gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.

Surface site means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

Tables to Subpart YYYY of Part 63.

As stated in § 63.6100, you must comply with the following emission limitations:

TABLE 1 TO SUBPART YYYY OF PART 63.—EMISSION LIMITATIONS

For each new or reconstructed stationary combustion turbine described in § 63.6100 which is . . .	You must meet the following emission limitations . . .
1. a lean premix gas-fired stationary combustion turbine as defined in this subpart, 2. a lean premix oil-fired stationary combustion turbine as defined in this subpart, 3. a diffusion flame gas-fired stationary combustion turbine as defined in this subpart, or 4. a diffusion flame oil-fired stationary combustion turbine as defined in this subpart.	limit the concentration of formaldehyde to 91 ppbvd or less at 15 percent O_2.

As stated in §§ 63.6100 and 63.6140, you must comply with the following operating limitations:

TABLE 2 TO SUBPART YYYY OF PART 63.—OPERATING LIMITATIONS

For . . .	You must . . .
1. each stationary combustion turbine that is required to comply with the emission limitation for formaldehyde and is using an oxidation catalyst.	maintain the 4-hour rolling average of the catalyst inlet temperature within the range suggested by the catalyst manufacturer.
2. each stationary combustion turbine that is required to comply with the emission limitation for formaldehyde and is not using an oxidation catalyst.	maintain any operating limitations approved by the Administrator.

As stated in § 63.6120, you must comply with the following requirements for performance tests and initial compliance demonstrations:

TABLE 3 TO SUBPART YYYY OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS AND INITIAL COMPLIANCE DEMONSTRATIONS

You must . . .	Using . . .	According to the following requirements . . .
a. demonstrate formaldehyde emissions meet the emission limitations specified in Table 1 by a performance test initially and on an annual basis AND.	Test Method 320 of 40 CFR part 63, appendix A; ASTM D6348–03 provided that %R as determined in Annex A5 of ASTM D6348–03 is equal or greater than 70% and less than or equal to 130%; or other methods approved by the Administrator.	formaldehyde concentration must be corrected to 15 percent O_2, dry basis. Results of this test consist of the average of the three 1 hour runs. Test must be conducted within 10 percent of 100 percent load.
b. select the sampling port location and the number of traverse points AND.	Method 1 or 1A of 40 CFR part 60, appendix A § 63.7(d)(1)(i).	if using an air pollution control device, the sampling site must be located at the outlet of the air pollution control device.
c. determine the O_2 concentration at the sampling port location AND.	Method 3A or 3B of 40 CFR part 60, appendix A.	measurements to determine O_2 concentration must be made at the same time as the performance test.
d. determine the moisture content at the sampling port location for the purposes of correcting the formaldehyde concentration to a dry basis.	Method 4 of 40 CFR part 60, appendix A or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03.	measurements to determine moisture content must be made at the same time as the performance test.

As stated in §§ 63.6110 and 63.6130, you must comply with the following requirements to demonstrate initial compliance with emission limitations:

TABLE 4 TO SUBPART YYYY OF PART 63.—INITIAL COMPLIANCE WITH EMISSION LIMITATIONS

For the . . .	You have demonstrated initial compliance if . . .
emission limitation for formaldehyde..	the average formaldehyde concentration meets the emission limitations specified in Table 1.

As stated in §§ 63.6135 and 63.6140, you must comply with the following requirements to demonstrate continuing compliance with operating limitations:

TABLE 5 OF SUBPART YYYY OF PART 63.—CONTINUOUS COMPLIANCE WITH OPERATING LIMITATIONS

For each stationary combustion turbine complying with the emission limitation for formaldehyde . . .	You must demonstrate continuous compliance by . . .
1. with an oxidation catalyst	continuously monitoring the inlet temperature to the catalyst and maintaining the 4-hour rolling average of the inlet temperature within the range suggested by the catalyst manufacturer.
2. without the use of an oxidation catalyst	continuously monitoring the operating limitations that have been approved in your petition to the Administrator.

As stated in § 63.6150, you must comply with the following requirements for reports:

TABLE 6 OF SUBPART YYYY OF PART 63.—REQUIREMENTS FOR REPORTS

If you own or operate a . . .	you must . . .	According to the following requirements . . .
1. stationary combustion turbine which must comply with the formaldehyde emission limitation.	report your compliance status	semiannually, according to the requirements of § 63.6150.
2. stationary combustion turbine which fires landfill gas, digester gas or gasified MSW equivalent to 10 percent or more of the gross heat input on an annual basis.	report (1) the fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas, digester gas, or gasified MSW is equivalent to 10 percent or more of the gross heat input on an annual basis, (2) the operating limits provided in your federally enforceable permit, and any deviations from these limits, and (3) any problems or errors suspected with the meters.	annually, according to the requirements in § 63.6150.

TABLE 6 OF SUBPART YYYY OF PART 63.—REQUIREMENTS FOR REPORTS—Continued

If you own or operate a . . .	you must . . .	According to the following requirements . . .
3. a lean premix gas-fired stationary combustion turbine or a diffusion flame gas-fired stationary combustion turbine as defined by this subpart, and you use any quantity of distillate oil to fire any new or existing stationary combustion turbine which is located at the same major source.	report (1) the number of hours distillate oil was fired by each new or existing stationary combustion turbine during the reporting period, (2) the operating limits provided in your federally enforceable permit, and any deviations from these limits, and (3) any problems or errors suspected with the meters.	annually, according to the requirements in §63.6150.

You must comply with the applicable General Provisions requirements:

TABLE 7 OF SUBPART YYYY OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART YYYY

Citation	Subject	Applies to Subpart YYYY	Explanation
§63.1	General applicability of the General Provisions.	Yes	Additional terms defined in §63.6175.
§63.2	Definitions	Yes	Additional terms defined in §63.6175.
§63.3	Units and abbreviations	Yes.	
§63.4	Prohibited activities	Yes.	
§63.5	Construction and reconstruction	Yes.	
§63.6(a)	Applicability	Yes.	
§63.6(b)(1)–(4)	Compliance dates for new and reconstructed sources.	Yes.	
§63.6(b)(5)	Notification	Yes.	
§63.6(b)(6)	[Reserved].		
§63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major.	Yes.	
§63.6(c)(1)–(2)	Compliance dates for existing sources	Yes.	
§63.6(c)(3)–(4)	[Reserved].		
§63.6(c)(5)	Compliance dates for existing area sources that become major.	Yes.	
§63.6(d)	[Reserved].		
§63.6(e)(1)	Operation and maintenance	Yes.	
§63.6(e)(2)	[Reserved].		
§63.6(e)(3)	SSMP	Yes.	
§63.6(f)(1)	Applicability of standards except during startup, shutdown, or malfunction (SSM).	Yes.	
§63.6(f)(2)	Methods for determining compliance	Yes.	
§63.6(f)(3)	Finding of compliance	Yes.	
§63.6(g)(1)–(3)	Use of alternative standard	Yes.	
§63.6(h)	Opacity and visible emission standards	No	Subpart YYYY does not contain opacity or visible emission standards.
§63.6(i)	Compliance extension procedures and criteria.	Yes.	
§63.6(j)	Presidential compliance exemption	Yes.	
§63.7(a)(1)–(2)	Performance test dates	Yes	Subpart YYYY contains performance test dates at §63.6110.
§63.7(a)(3)	Section 114 authority	Yes.	
§63.7(b)(1)	Notification of performance test	Yes.	
§63.7(b)(2)	Notification of rescheduling	Yes.	
§63.7(c)	Quality assurance/test plan	Yes.	
§63.7(d)	Testing facilities	Yes.	
§63.7(e)(1)	Conditions for conducting performance tests.	Yes.	
§63.7(e)(2)	Conduct of performance tests and reduction of data.	Yes	Subpart YYYY specifies test methods at §63.6120.
§63.7(e)(3)	Test run duration	Yes.	
§63.7(e)(4)	Administrator may require other testing under section 114 of the CAA.	Yes.	
§63.7(f)	Alternative test method provisions	Yes.	
§63.7(g)	Performance test data analysis, recordkeeping, and reporting.	Yes.	
§63.7(h)	Waiver of tests	Yes.	
§63.8(a)(1)	Applicability of monitoring requirements	Yes	Subpart YYYY contains specific requirements for monitoring at §63.6125.
§63.8(a)(2)	Performance specifications	Yes.	
§63.8(a)(3)	[Reserved].		
§63.8(a)(4)	Monitoring for control devices	No.	

TABLE 7 OF SUBPART YYYY OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART YYYY—Continued

Citation	Subject	Applies to Subpart YYYY	Explanation
§ 63.8(b)(1)	Monitoring	Yes.	
§ 63.8(b)(2)–(3)	Multiple effluents and multiple monitoring systems.	Yes.	
§ 63.8(c)(1)	Monitoring system operation and maintenance.	Yes.	
§ 63.8(c)(1)(i)	Routine and predictable SSM	Yes.	
§ 63.8(c)(1)(ii)	Parts for repair of CMS readily available	Yes.	
§ 63.8(c)(1)(iii)	SSMP for CMS required	Yes.	
§ 63.8(c)(2)–(3)	Monitoring system installation	Yes.	
§ 63.8(c)(4)	Continuous monitoring system (CMS) requirements.	Yes	Except that subpart YYYY does not require continuous opacity monitoring systems (COMS).
§ 63.8(c)(5)	COMS minimum procedures	No.	
§ 63.8(c)(6)–(8)	CMS requirements	Yes	Except that subpart YYYY does not require COMS.
§ 63.8(d)	CMS quality control	Yes.	
§ 63.8(e)	CMS performance evaluation	Yes	Except for § 63.8(e)(5)(ii), which applies to COMS.
§ 63.8(f)(1)–(5)	Alternative monitoring method	Yes.	
§ 63.8(f)(6)	Alternative to relative accuracy test	Yes.	
§ 63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§ 63.6135 and 63.6140.
§ 63.9(a)	Applicability and State delegation of notification requirements.	Yes.	
§ 63.9(b)(1)–(5)	Initial notifications	Yes	Except that § 63.9(b)(3) is reserved.
§ 63.9(c)	Request for compliance extension	Yes.	
§ 63.9(d)	Notification of special compliance requirements for new sources.	Yes.	
§ 63.9(e)	Notification of performance test	Yes.	
§ 63.9(f)	Notification of visible emissions/opacity test.	No	Subpart YYYY does not contain opacity or VE standards.
§ 63.9(g)(1)	Notification of performance evaluation	Yes.	
§ 63.9(g)(2)	Notification of use of COMS data	No	Subpart YYYY does not contain opacity or VE standards.
§ 63.9(g)(3)	Notification that criterion for alternative to relative accuracy test audit (RATA) is exceeded.	Yes	If alternative is in use.
§ 63.9(h)	Notification of compliance status	Yes	Except that notifications for sources not conducting performance tests are due 30 days after completion of performance evaluations. § 63.9(h)(4) is reserved.
§ 63.9(i)	Adjustment of submittal deadlines	Yes.	
§ 63.9(j)	Change in previous information	Yes.	
§ 63.10(a)	Administrative provisions for recordkeeping and reporting.	Yes.	
§ 63.10(b)(1)	Record retention	Yes.	
§ 63.10(b)(2)(i)–(iii)	Records related to SSM	Yes.	
§ 63.10(b)(2)(iv)–(v)	Records related to actions during SSM	Yes.	
§ 63.10(b)(2)(vi)–(xi)	CMS records	Yes.	
§ 63.10(b)(2)(xii)	Record when under waiver	Yes.	
§ 63.10(b)(2)(xiii)	Records when using alternative to RATA.	Yes	For CO standard if using RATA alternative.
§ 63.10(b)(2)(xiv)	Records of supporting documentation	Yes.	
§ 63.10(b)(3)	Records of applicability determination	Yes.	
§ 63.10(c)	Additional records for sources using CMS.	Yes	Except that § 63.10(c)(2)–(4) and (9) are reserved.
§ 63.10(d)(1)	General reporting requirements	Yes.	
§ 63.10(d)(2)	Report of performance test results	Yes.	
§ 63.10(d)(3)	Reporting opacity or VE observations	No	Subpart YYYY does not contain opacity or VE standards.
§ 63.10(d)(4)	Progress reports	Yes.	
§ 63.10(d)(5)	Startup, shutdown, and malfunction reports.	No	Subpart YYYY does not require reporting of startup, shutdowns, or malfunctions.
§ 63.10(e)(1) and (2)(i)	Additional CMS reports	Yes.	
§ 63.10(e)(2)(ii)	COMS-related report	No	Subpart YYYY does not require COMS.
§ 63.10(e)(3)	Excess emissions and parameter exceedances reports.	Yes.	

TABLE 7 OF SUBPART YYYY OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART YYYY—Continued

Citation	Subject	Applies to Subpart YYYY	Explanation
§ 63.10(e)(4)	Reporting COMS data	No	Subpart YYYY does not require COMS.
§ 63.10(f)	Waiver for recordkeeping and reporting	Yes.	
§ 63.11	Flares	No.	
§ 63.12	State authority and delegations	Yes.	
§ 63.13	Addresses	Yes.	
§ 63.14	Incorporation by reference	Yes.	
§ 63.15	Availability of information	Yes.	

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April 19, 2004

Part II

Environmental Protection Agency

40 CFR Part 63
National Emission Standards for Hazardous Air Pollutants: Surface Coating of Plastic Parts and Products; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[OAR–2002–0074; FRL–7554–4]

RIN 2060–AG57

National Emission Standards for Hazardous Air Pollutants: Surface Coating of Plastic Parts and Products

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national emission standards for hazardous air pollutants (NESHAP) for plastic parts and products surface coating operations located at major sources of hazardous air pollutants (HAP). The final rule implements section 112(d) of the Clean Air Act (CAA) by requiring these operations to meet HAP emission standards reflecting the application of the maximum achievable control technology (MACT). The final rule will protect air quality and promote the public health by reducing emissions of HAP from facilities in the plastic parts and products surface coating source category. The organic HAP emitted by these operations include methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), toluene, ethylene glycol monobutyl ether (EGBE) and other glycol ethers, and xylenes. Exposure to these substances has been demonstrated to cause adverse health effects such as irritation of the lung, skin, and mucous membranes, and effects on the central nervous system, liver, and heart. In general, these findings have only been shown with concentrations higher than those typically in the ambient air. The final standards are expected to reduce nationwide organic HAP emissions from major sources in this source category by approximately 80 percent.

DATES: The final rule is effective April 19, 2004. The incorporation by reference of certain publications listed in the final rule is approved by the Director of the Federal Register as of April 19, 2004.

ADDRESSES: *Docket.* Docket ID No. OAR–2002–0074 (formerly Docket No. A–99–12) is located at the EPA Docket Center, EPA West (6102T), 1301 Constitution Avenue, NW., Room B–102, Washington, DC 20460.

Background Information Document. A background information document (BID) for the promulgated NESHAP may be obtained from the docket; the U.S. EPA Library (C267–01), Research Triangle Park, NC 27711, telephone (919) 541–2777; or from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, telephone (703) 487–4650. Refer to "National Emission Standards for Hazardous Air Pollutants (NESHAP): Surface Coating of Plastic Parts and Products-Summary of Public Comments and Responses on Proposed Rule" (EPA–453/R–03–007).

FOR FURTHER INFORMATION CONTACT: Ms. Kim Teal, Coatings and Consumer Products Group, Emission Standards Division (C539–03), U.S. EPA, Research Triangle Park, NC 27711; telephone number (919) 541–5580; facsimile number (919) 541–5689; electronic mail address: *teal.kim@epa.gov*.

SUPPLEMENTARY INFORMATION: *Regulated Entities.* The source category definition includes facilities that apply coatings to plastic parts and products. In general, facilities that coat plastic parts and products are covered under the North American Industrial Classification System (NAICS) codes listed in Table 1. However, facilities classified under other NAICS codes may be subject to the final standards if they meet the applicability criteria. Not all facilities classified under the NAICS codes in the following table will be subject to the final standards because some of the classifications cover products outside the scope of the NESHAP for plastic parts and products.

TABLE 1.—CATEGORIES AND ENTITIES POTENTIALLY REGULATED BY THE FINAL RULE

Category	NAICS	Examples of potentially regulated entities
Industrial	337214	Office furniture, except wood.
	32614, 32615	Plastic foam products (*e.g.*, pool floats, wrestling mats, life jackets).
	326199	Plastic products not elsewhere classified (*e.g.*, name plates, coin holders, storage boxes, license plate housings, cosmetic caps, cup holders).
	333313	Office machines.
	33422	Radio and television broadcasting and communications equipment (*e.g.*, cellular telephones).
	336211	Motor Vehicle Body Manufacturing.
	336399	Motor vehicle parts and accessories.
	336212	Truck Trailer Manufacturing.
	336213	Motor Home Manufacturing.
	336214	Travel Trailer and Camper Manufacturing.
	336999	Transportation equipment not elsewhere classified (*e.g.*, snowmobile hoods, running boards, tractor body panels, personal watercraft parts).
	339111, 339112	Medical equipment and supplies.
	33992	Sporting and athletic goods.
	33995	Signs and advertising specialties.
	339999	Manufacturing industries not elsewhere classified (*e.g.*, bezels, consoles, panels, lenses).
Federal, State, and Local Governments.		Government owned or operated facilities that perform plastic parts and products surface coating.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your coating operation is regulated by this action, you should examine the applicability criteria in § 63.4481 of the final rule.

Docket. The EPA has established an official public docket for this action under Docket ID No. OAR–2002–0074 (formerly docket No. A–99–12). The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. Although a part of the official docket, the public docket does not include Confidential Business Information or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the EPA Docket Center, EPA West, Room B–102, 1301 Constitution Avenue, NW., Washington, DC 20460.

The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566–1744, and the telephone number for the Docket is (202) 566–1742. A reasonable fee may be charged for copying docket materials.

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WorldWide Web (WWW). In addition to being available in the docket, an electronic copy of the final rule will be available on the WWW. Following the Administrator's signature, a copy of the final rule will be posted at *http://www.epa.gov/ttn/oarpg* on EPA's Technology Transfer Network (TTN) policy and guidance page for newly proposed or promulgated rules. The TTN provides information and technology exchange in various areas of air pollution control. If more information regarding the TTN is needed, call the TTN HELP line at (919) 541–5384.

Judicial Review. Under section 307(b)(1) of the CAA, judicial review of the final rule is available only by the filing of a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by June 18, 2004. Under section 307(d)(7)(B) of the CAA, only an objection to the rule that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Under section 307(b)(2) of the CAA, the requirements established by the final rule may not be challenged separately in any civil or criminal proceedings brought by EPA to enforce these requirements.

Outline: The following outline is provided to aid in reading the preamble to the final rule:

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I. Background

A. What Is the Source of Authority for Development of NESHAP?

Section 112 of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. The Plastic Parts and Products (Surface Coating) category of major sources was listed on July 16, 1992 (57 FR 31576), under the Surface Coating Processes industry group. Major sources of HAP are those that emit or have the potential to emit considering controls equal to or greater than 9.1 megagrams per year (Mg/yr) (10 tons per year (tpy)) of any one HAP or 22.7 Mg/yr (25 tpy) of any combination of HAP.

B. What Criteria Are Used in the Development of NESHAP?

Section 112(c)(2) of the CAA requires that we establish NESHAP for the control of HAP from both new and existing major sources, based upon the criteria set out in section 112(d). The CAA requires the NESHAP to reflect the maximum degree of reduction in emissions of HAP that is achievable, taking into consideration the cost of achieving the emission reduction, any non-air quality health and environmental impacts, and energy requirements. This level of control is commonly referred to as MACT.

The MACT floor is the minimum control level allowed for NESHAP and is defined under section 112(d)(3) of the CAA. In essence, the MACT floor ensures that the standard is set at a level that assures that all major sources achieve the level of control at least as stringent as that already achieved by the better-controlled and lower-emitting sources in each source category or subcategory. For new sources, the MACT floor cannot be less stringent than the emission control that is achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than standards for new sources, but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources in the category or subcategory (or the best-performing five sources for categories or subcategories with fewer than 30 sources).

In developing the final NESHAP, we considered control options that are more stringent than the MACT floor, taking into account consideration of the cost of achieving the emission reduction, any

non-air quality health and environmental impacts, and energy requirements. In the final rule, EPA is promulgating standards for both existing and new sources consistent with these statutory requirements.

C. What Are the Primary Sources of Emissions and What Are the Emissions?

The final NESHAP regulate emissions of organic HAP. Available emission data collected during the development of the final NESHAP show that the primary organic HAP emitted from the surface coating of plastic parts and products operations include MEK, MIBK, toluene, and xylenes. These compounds account for over 85 percent of this category's nationwide organic HAP emissions. Other organic HAP emissions identified include EGBE and other glycol ethers.

The majority of organic HAP emissions from a facility engaged in plastic parts and products surface coating operations can be attributed to the application, drying, and curing of coatings. The remaining emissions are primarily from cleaning operations. In most cases, organic HAP emissions from mixing, storage, and waste handling are relatively small.

The organic HAP emissions associated with coatings (the term "coatings" includes protective and decorative coatings as well as adhesives) occur at several points. Coatings are most often applied either by using a spray gun in a spray booth or by dipping the substrate in a tank containing the coating. In a spray booth, volatile components evaporate from the coating as it is applied to the part and from the overspray. The coated part then passes through an open (flash-off) area where additional volatiles evaporate from the coating. Finally, the coated part passes through a drying/curing oven, or is allowed to air dry, where the remaining volatiles are evaporated.

Organic HAP emissions also occur from the activities undertaken during cleaning operations where solvent is used to remove coating residue or other unwanted materials. Cleaning in this industry includes cleaning of spray guns and transfer lines (*e.g.*, tubing or piping), tanks, and the interior of spray booths. Cleaning also includes applying solvents to manufactured parts prior to coating application and to equipment (*e.g.*, cleaning rollers, pumps, conveyors, etc.).

Mixing and storage are other sources of emissions. Organic HAP emissions can occur from displacement of organic vapor-laden air in containers used to store organic HAP solvents or to mix coatings containing organic HAP solvents. The displacement of vapor-laden air can occur during the filling of containers and can be caused by changes in temperature or barometric pressure, or by agitation during mixing.

D. What Are the Health Effects Associated With Organic HAP Emissions From the Surface Coating of Plastic Parts and Products?

The HAP to be controlled with the final rule are associated with a variety of adverse health effects. These adverse health effects include chronic health disorders (*e.g.*, birth defects and effects on the central nervous system, liver, and heart), and acute health disorders (*e.g.*, irritation of the lung, skin, and mucous membranes, and effects on the central nervous system).

We do not have the type of current detailed data on each of the facilities covered by these emission standards for this source category, and the people living around the facilities, that would be necessary to conduct an analysis to determine the actual population exposures to the organic HAP emitted from these facilities and potential for resultant health effects. Therefore, we do not know the extent to which the adverse health effects described above occur in the populations surrounding these facilities. However, to the extent the adverse effects do occur, the final rule will reduce emissions and subsequent exposures.

II. Summary of the Final Rule

A. What Source Categories and Subcategories Are Affected by the Final Rule?

The final rule applies to you if you own or operate a plastic parts and products surface coating facility that is a major source, or is located at a major source, or is part of a major source of HAP emissions. We define a plastic parts and products surface coating facility as any facility engaged in the surface coating of any plastic part or product. If application of coating to a substrate occurs, then surface coating also includes associated activities, such as surface preparation, cleaning, mixing, and storage. However, these associated activities do not comprise surface coating if the application of coating does not occur. Coating application with handheld, non-refillable aerosol containers, touch-up markers, marking pens, or the application of paper film or plastic film which may be pre-coated with an adhesive by the manufacturer is not a coating operation for the purposes of the final rule.

You will not be subject to the final rule if your plastic parts and products surface coating facility is located at an area source. An area source of HAP is any facility that has the potential to emit HAP but is not a major source. You may establish area source status by limiting the source's potential to emit HAP through appropriate mechanisms available through your permitting authority.

The final rule does not apply to surface coating or a coating operation that meets any of the criteria listed below:

- A coating operation conducted at a source where the source uses only coatings, thinners and/or other additives, and cleaning materials that contain no organic HAP, as determined according to the procedures in the final rule.
- Surface coating that occurs at research or laboratory facilities, or is part of janitorial, building, and facility maintenance operations, or that occurs at hobby shops operated for noncommercial purposes.
- Surface coating of plastic performed on-site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State) or the National Aeronautics and Space Administration (NASA), or the surface coating of military munitions manufactured by or for the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State).
- Surface coating where plastic is extruded onto plastic parts or products to form a coating.
- Surface coating of magnet wire.
- In-mold coating or gel coating operations in manufacturing of reinforced plastic composites that meet the applicability criteria of the Reinforced Plastic Composites Production NESHAP (40 CFR part 63, subpart WWWW, 68 FR 19375, April 21, 2003).
- Surface coating of plastic components of wood furniture that meet the applicability criteria for Wood Furniture Manufacturing NESHAP (40 CFR part 63, subpart JJ).
- Surface coating of plastic components of large appliances that meet the applicability criteria for large appliance surface coating (40 CFR part 63, subpart NNNN).
- Surface coating of plastic components of metal furniture that meet the applicability criteria for Metal Furniture Surface Coating NESHAP (40 CFR part 63, subpart RRRR; 68 FR 28606, May 23, 2003).
- Surface coating of plastic components of wood building products that meet the applicability criteria for Wood Building Products Surface

Coating NESHAP (40 CFR part 63, subpart QQQQ; 68 FR 31746, May 28, 2003).

- Surface coating of plastic components of aerospace vehicles that meet the applicability criteria for Aerospace Manufacturing and Rework NESHAP (40 CFR part 63, subpart GG).
- The application of specialty coatings defined in appendix A to 40 CFR part 63, subpart GG to a plastic aerospace vehicle or component.
- Surface coating of plastic components of ships that meet the applicability criteria for Shipbuilding and Ship Repair NESHAP (40 CFR part 63, subpart II).
- Surface coating of plastic using a web coating process that meets the applicability criteria for Paper and Other Web Coating NESHAP (40 CFR part 63, subpart JJJJ).
- Surface coating of fiberglass boats or parts of fiberglass boats (including, but not limited to, the use of assembly adhesives) where the facility meets the applicability criteria for Boat Manufacturing NESHAP (40 CFR part 63, subpart VVVV), except where the surface coating of the boat is a post-mold coating operation performed on personal watercraft or parts of personal watercraft.
- Surface coating of plastic components of automobiles and light-duty trucks that meet the applicability criteria for Automobiles and Light-Duty Trucks Surface Coating NESHAP (40 CFR part 63, subpart IIII (under development)).

If you perform surface coating of plastic parts or products that meet the applicability criteria for both the Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII (under development)) and these NESHAP, then you may comply with the requirements of the Automobiles and Light-Duty Trucks NESHAP for the surface coating of all your plastic parts used in automobile or light-duty truck manufacturing in lieu of complying with each subpart separately.

The final rule contains four subcategories: general use coating, thermoplastic olefin (TPO) coating, automotive lamp coating, and assembled on-road vehicle coating. The general use subcategory includes all surface coating operations in the plastic parts and products source category that are not included in the other four subcategories. This includes operations that coat a wide variety of substrates, surfaces, and types of plastic parts, as well as more specialized coating scenarios. The TPO subcategory encompasses all materials used in the surface coating of TPO substrates for automotive applications. The TPO subcategory requires the use of solvents to facilitate proper adhesion of coatings. The automotive lamp subcategory addresses the unique requirements for surface coating of exterior automotive lamps (*e.g.*, headlamps, tail lamps, etc.). Automotive lamps are subject to regulatory requirements established by the National Highway Traffic Safety Administration resulting in the use of specific coatings to achieve required performance specifications. The assembled on-road vehicle subcategory addresses surface coating of fully-assembled vehicles that are physically larger than the other plastic parts and products coated in this source category and that may contain heat-sensitive parts. The large size and presence of heat-sensitive parts make certain lower-HAP technologies, such as heat-cured waterborne coatings, infeasible for assembled on-road vehicles. The assembled on-road vehicle subcategory will affect primarily recreational vehicle manufacture and automobile body refinishing.

Each subcategory consists of all coating operations, including associated surface preparation, equipment cleaning, mixing, storage, and waste handling.

B. What Is the Relationship to Other Rules?

The new source performance standards (NSPS) that could potentially apply to sources also subject to the final rule are the Standards of Performance for Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines (40 CFR part 60, subpart TTT). The NSPS apply to facilities that apply coatings to plastic parts for use in business machines if the facility began construction, reconstruction, or modification after January 8, 1986. The pollutants regulated are volatile organic compounds. Because of the differences between the NSPS and the NESHAP, compliance with either rule cannot be deemed compliance with the other. A plastic parts and products surface coating operation that meets the applicability requirements of both the NSPS and the NESHAP must comply with both.

Affected sources that meet the applicability criteria in the final plastic parts and products rule may also meet the applicability criteria of other coating NESHAP. For example, some facilities that coat plastic and metal parts using the same or different coatings, coating application processes, and conveyance equipment, either simultaneously or at alternative times could be subject to both the Plastic Parts and Products Surface Coating NESHAP and the Miscellaneous Metal Parts and Products Surface Coating NESHAP (40 CFR part 63, subpart MMMM).

In the final rule, we have minimized the burden of complying with multiple surface coating emission limits by offering two alternatives to complying separately with each applicable emission limit. The first alternative allows a facility to have all applicable surface coating operations comply with the emission limit that represents the predominant type of coating activity at that facility. Predominant activity means the coating activity that represents 90 percent or more of the surface coating activities at a facility. For example, if a facility is subject to both the Plastic Parts and Miscellaneous Metal Parts NESHAP and the activities subject to the Miscellaneous Metal Parts NESHAP account for 90 percent or more of the surface coating activity at the facility, then the facility may comply with the emission limitations for miscellaneous metal parts and products for both types of surface coating operations.

The predominant activity alternative may be applied if 90 percent or more of the surface coating is in the general use or TPO coating subcategory; however, this alternative is not available where assembled on-road vehicle, or automotive lamp coating represents the predominant activity. The emission limits for those two subcategories reflect specialized performance requirements and the need for higher-HAP-containing materials. It would not be appropriate to apply emission limits specifically developed for unique performance characteristics to other types of coatings.

You must include all surface coating activities that meet the applicability criteria of a subcategory in a surface coating NESHAP and constitute more than 1 percent of total coating activities. Coating activities that meet the applicability criteria of a subcategory in a surface coating NESHAP but comprise less than 1 percent of total coating activities need not be included in the determination of predominant activity but they must be included in the compliance calculations.

The second alternative allows a facility to calculate and comply with a facility-specific emission limit for each 12-month rolling average compliance period. The facility would use the relative amount of coating activity subject to each emission limit in each NESHAP to calculate a weighted, or composite, emission limit for that facility. Compliance with that facility-specific emission limit for all surface coating activities included in the

facility-specific emission limit constitutes compliance with the emission limits in the Plastic Parts NESHAP, as well as other applicable NESHAP.

As with the predominant activity alternative, you must include all surface coating activities that meet the applicability criteria of a subcategory in a surface coating NESHAP and constitute more than 1 percent of total coating activities. Coating activities that meet the applicability criteria of a subcategory in a surface coating NESHAP but comprise less than 1 percent of total coating activities need not be included in the facility-specific emission limit calculation, but they must be included in the compliance calculations.

C. What Is the Affected Source?

We define an affected source as a stationary source, a group of stationary sources, or part of a stationary source to which a specific emission standard applies. The final rule defines the affected source as the collection of all operations associated with the surface coating of plastic parts and products within each of the four subcategories (TPO, automotive lamps, assembled on-road vehicle, and general use). If application to a substrate occurs, these operations include preparation of a coating for application (*e.g.*, mixing with thinners and/or other additives); surface preparation of the plastic parts and products (including the use of a cleaning material to remove dried coating); coating application and flash-off; drying and/or curing of applied coatings; cleaning of equipment used in surface coating; storage of coatings, thinners and/or other additives, and cleaning materials; and handling and conveyance of waste materials from the surface coating operations. The coating operation does not include the application of coatings using hand-held nonrefillable aerosol containers, touch-up markers, marking pens, or the application of paper film or plastic film that may be pre-coated with an adhesive by the manufacturer.

D. What Are the Emission Limits, Operating Limits, and Other Standards?

Emission Limits. We are limiting organic HAP emissions from each existing affected source using the emission limits in Table 2 of this preamble. For each new or reconstructed affected source, the final emission limits are given in Table 3 of this preamble. For each of the subcategories, the emission limit is expressed as the mass of organic HAP emissions per mass of coating solids used during each 12-month compliance period.

TABLE 2.—EMISSION LIMITS FOR EXISTING AFFECTED SOURCES

For any affected source applying coating to . . .	The organic HAP emission limit you must meet, in kilograms (kg) organic HAP emitted/kg coating solids used. (Same number applies to lb organic HAP emitted/lb coating solids used)
TPO substrates	0.26
Automotive lamps	0.45
Assembled on-road vehicles	1.34
Other (general use) plastic parts and products	0.16

TABLE 3.—EMISSION LIMITS FOR NEW OR RECONSTRUCTED AFFECTED SOURCES

For any affected source applying coating to . . .	The organic HAP emission limit you must meet, in kg organic HAP emitted/kg coating solids used (Same number applies to lb organic HAP emitted/lb coating solids used)
TPO substrates	0.22
Automotive lamps	0.26
Assembled on-road vehicles	1.34
Other (general use) plastic parts and products	0.16

You may choose from several compliance options in the final rule to achieve the emission limits. You could comply by applying materials (coatings, thinners and/or other additives, and cleaning materials) that meet the emission limits, either individually or collectively, during each compliance period. You could also use a capture system and add-on control device to meet the emission limits. You could also comply by using a combination of both approaches.

Operating Limits. If you reduce emissions by using a capture system and add-on control device (other than a solvent recovery system for which you conduct a liquid-liquid material balance), the operating limits apply to you. These limits are site-specific parameter limits that you determine during the initial performance test of the system. For capture systems that are not permanent total enclosures, you establish average volumetric flow rates or duct static pressure limits for each capture device (or enclosure) in each capture system. For capture systems that are permanent total enclosures, you establish limits on average facial velocity or pressure drop across openings in the enclosure.

For thermal oxidizers, you monitor the combustion temperature. For catalytic oxidizers, you monitor the temperature immediately before and after the catalyst bed, or you monitor the temperature before or after the catalyst bed and implement a site-specific

inspection and maintenance plan for the catalytic oxidizer. For regenerative carbon adsorbers for which you do not conduct a liquid-liquid material balance, you monitor the carbon bed temperature and the amount of steam or nitrogen used to desorb the bed. For condensers, you monitor the outlet gas temperature from the condenser. For concentrators, you monitor the temperature of the desorption gas stream and the pressure drop across the concentrator.

The site-specific parameter limits that you establish must reflect operation of the capture system and control devices during a performance test that demonstrates achievement of the emission limits during representative operating conditions.

Work Practice Standards. If you use an emission capture system and control device for compliance, you must develop and implement a work practice plan to minimize organic HAP emissions from mixing operations; storage tanks and other containers; and handling operations for coatings, thinners and/or other additives, cleaning materials, and waste materials. If your affected source has an existing documented plan that incorporates steps taken to minimize emissions from the aforementioned sources, you may be able to use your existing plan to satisfy the requirement for a work practice plan.

If you use a capture system and control device for compliance, you are required to develop and operate according to a startup, shutdown, and malfunction plan (SSMP) during periods of startup, shutdown, or malfunction of the capture system and control device.

The NESHAP General Provisions (40 CFR part 63, subpart A) codify certain procedures and criteria for all 40 CFR part 63 NESHAP and apply to you as indicated in the final rule. The General Provisions contain administrative procedures, preconstruction review procedures for new sources, and procedures for conducting compliance-related activities such as notifications, reporting and recordkeeping, performance testing, and monitoring. The final rule refers to individual sections of the General Provisions to emphasize key sections that are relevant. However, unless specifically overridden in the final rule, all of the applicable General Provisions requirements apply to you.

E. What Are the Testing and Initial Compliance Requirements?

Existing affected sources must be in compliance with the final rule no later than April 19, 2007. New and reconstructed sources must be in compliance upon initial startup of the affected source or by April 19, 2004, whichever is later. However, affected sources are not required to demonstrate compliance until the end of the initial compliance period when they will have accumulated the necessary records to document the rolling 12-month organic HAP emission rate.

Compliance with the emission limits is based on a rolling 12-month organic HAP emission rate determined each month. Each 12-month period is a compliance period. The initial compliance period, therefore, is the 12-month period beginning on the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period begins on the compliance date and extends through the end of that month plus the following 12 months. In other words, the initial compliance period could be almost 13 months long, but all subsequent compliance periods will be 12 months long. We have defined "month" as a calendar month or a pre-specified period of 28 to 35 days to allow for flexibility at sources where data are based on a business accounting period.

Being "in compliance" means that the owner or operator of the affected source meets the requirements to achieve the final emission limitations during the initial compliance period. However, they will not have accumulated the records for the rolling 12-month organic HAP emission rate until the end of the initial compliance period. At the end of the initial compliance period, the owner or operator uses the data and records generated to determine whether or not the affected source is in compliance with the organic HAP emission limit and other applicable requirements for that period. If the affected source does not meet the applicable limit and other requirements, it is out of compliance for the entire compliance period.

Emission Limits. There are three options for complying with the final emission limits, and the testing and initial compliance requirements vary accordingly. You may choose to use one compliance option for the entire affected source, or you may use different compliance options for different coating operations within the affected source. You may also use different compliance options for the same coating operation at different times, different compliance options when different coatings are applied to the same part, or when the same coating is applied to different parts. However, you may not use different compliance options at the same time on the same coating operation.

Option 1: Compliant materials. This option is a pollution prevention option that allows you to easily demonstrate compliance by using low-HAP or non-HAP coatings and other materials. If you use coatings that, based on their organic HAP content, individually meet the kilogram (kg) (lb) organic HAP emitted per kg (lb) coating solids used levels in the applicable emission limits and you use non-HAP thinners and other additives and cleaning materials, this compliance option is available to you. For this option, we have minimized recordkeeping and reporting requirements. You may demonstrate compliance by using manufacturer's formulation data and readily available purchase records to determine the organic HAP content of each coating or other material and the amount of each material used. You do not need to perform any detailed emission rate calculations.

If you demonstrate compliance based on the coatings and other materials used, you demonstrate that the organic HAP content of each coating meets the emission limits for the appropriate subcategory as shown in Tables 2 and 3 of this preamble, and that you used no organic HAP-containing thinners and/or other additives, or cleaning materials. For example, if you are using the compliant materials option and your existing source has TPO coating operations, automotive lamp coating operations, assembled on-road vehicle coating operations, and general use coating operations, you demonstrate that: (1) Each coating used in the TPO coating operation has an organic HAP content no greater than 0.26 kg (0.26 lb) organic HAP emitted per kg (lb) coating solids used; (2) each coating used in the automotive lamp coating operations has an organic HAP content no greater than 0.45 kg (0.45 lb) organic HAP emitted per kg (lb) coating solids used; (3) each coating used in the assembled on-road vehicle coating operations has an organic HAP content no greater than 1.34 kg (1.34 lb) organic HAP emitted per kg (lb) coating solids used; (4) each general use coating has an organic HAP content no greater than 0.16 kg (0.16 lb) organic HAP emitted per kg (lb) coating solids used; and (5) that you used no organic HAP-containing thinners and/or other additives, or cleaning materials. Note that "no organic HAP" is not intended to mean absolute zero. Materials that contain "no organic HAP" means materials that contain organic HAP levels below the levels specified in § 63.4541(a) of the final rule, which are typical Occupational Safety and Health

Administration (OSHA) reporting levels for material safety data sheets. These typical reporting levels only count organic HAP that are present at 0.1 percent or more by mass for OSHA-defined carcinogens and at 1.0 percent or more by mass for other compounds.

To determine the mass of organic HAP in coatings, thinners and/or other additives, and cleaning materials and the mass fraction of coating solids, you may rely on manufacturer's formulation data. You are not required to perform tests or analysis of the material if formulation data are available. Alternatively, you could use results from the test methods listed below. You may also use alternative test methods provided you get EPA approval in accordance with the NESHAP General Provisions, 40 CFR 63.7(f). However, if there is any inconsistency between the test method results (either EPA's or an approved alternative) and manufacturer's data, the test method results prevail for compliance and enforcement purposes, unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

The following test methods are used to determine HAP content. For organic HAP content, use Method 311 of 40 CFR part 63, appendix A. You may also use nonaqueous volatile matter as a surrogate for organic HAP, which includes all organic HAP plus all other organic compounds, excluding water. If you choose this option, use Method 24 of 40 CFR part 60, appendix A. If you are determining HAP content for reactive adhesives (that is, adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere), you may use the alternative to Method 24 that is included in appendix A of the final rule. For determining mass fraction of coating solids, use Method 24.

Option 2: Compliance based on the emission rate without add-on controls. This option is a pollution prevention option that allows you to demonstrate compliance based on the organic HAP contained in the mix of coatings, thinners and/or other additives, and cleaning materials you use. This option offers the flexibility to use some individual coatings that do not, by themselves, meet the kg (lb) organic HAP emitted per kg (lb) coating solids used levels in the applicable emission limits if you use other low-HAP or non-HAP coatings such that overall emissions from the affected source over a 12-month period meet the emission limits. You must use this option if you use HAP-containing thinners and/or other additives, and cleaning materials and do not have add-on controls. You keep track of the mass of organic HAP in each coating, thinner or other additive, and cleaning material, and the amount of each material you use in your affected source each month of the compliance period. You use this information to determine the total mass of organic HAP in all coatings, thinners and/or other additives, and cleaning materials divided by the total mass of coating solids used during the compliance period. You demonstrate that your emission rate (in kg (lb) organic HAP emitted per kg (lb) coating solids used) meets the applicable emission limit. You may use readily available purchase records and manufacturer's formulation data to determine the amount of each coating or other material you used and the organic HAP in each material. The final rule contains equations that show you how to perform the calculations to demonstrate compliance.

If you demonstrate compliance using Option 2, you are required to:

- Determine the quantity of each coating, thinner and/or other additive, and cleaning material used.
- Determine the mass of organic HAP in each coating, thinner and other additive, and cleaning material using the same types of data and methods previously described for Option 1, including the alternative methods for reactive coatings. You may rely on manufacturer's formulation data or you may choose to use test results as described under Option 1.
- Determine the mass fraction of coating solids for each coating using the same types of data or methods described under Option 1. In this option, you may include the solids from powder coatings in the compliance calculations.
- Calculate the total mass of organic HAP in all materials and total mass of coating solids used each month. You may subtract from the total mass of organic HAP the amount contained in waste materials you send to a hazardous waste treatment, storage, and disposal facility regulated under 40 CFR part 262, 264, 265, or 266.
- Calculate the total mass of organic HAP emissions and total mass of coating solids used for the initial compliance period by adding together all the monthly values for mass of organic HAP and for mass of coating solids used for the 12 months of the initial compliance period.
- Calculate the ratio of the total mass of organic HAP emitted for the materials used to the total mass of coating solids used (kg (lb) organic HAP emitted per kg (lb) of coating solids used) for the initial compliance period.
- Record the calculations and results and include them in your Notification of Compliance Status.

Note that if you choose to use this option for a particular coating operation rather than for all coating operations at the source, you calculate the organic HAP emission rate using just the materials used in that operation. Similarly, if your facility has multiple coating operations using this option (*e.g.*, a TPO coating operation, an automotive lamp coating operation, an assembled on-road vehicle coating operation, and a general use coating operation), you do a separate calculation for each coating operation to show that each coating operation meets its emission limit. If you are complying with a facility-specific emission limit, you include all coating operations that are subject to the facility-specific emission limit in the compliance calculations.

Option 3: Compliance based on using a capture system and add-on controls device. This option allows sources to use a capture system and an add-on pollution control device, such as a combustion device or a recovery device, to meet the emission limits. While we believe that, based on typical emission characteristics, most sources will not use control devices, we are providing this option for sources that use control devices. Fewer than 10 percent of the existing sources for which we have data use control devices. Under this option, testing is required to demonstrate the capture system and control device efficiencies. Alternatively, you may conduct a liquid-liquid material balance to demonstrate the amount of organic HAP collected by your recovery device. The final rule provides equations showing you how to use records of materials usage, organic HAP contents of each material, capture and control efficiencies, and coating solids content to calculate your emission rate during the compliance period.

If you demonstrate compliance based on this option, you demonstrate that your emission rate considering controls (in kg (lb) organic HAP emitted per kg (lb) of coating solids used) is less than the applicable emission limit. For a capture system and add-on control device, other than a solvent recovery system for which you conduct a liquid-liquid material balance, your testing and initial compliance requirements are as follows:

- Conduct an initial performance test to determine the capture and control efficiencies of the equipment and to establish operating limits to be achieved on a continuous basis. The performance test must be completed no later than the

compliance date for existing sources and 180 days after the compliance date for new and reconstructed sources.

- Calculate the mass of organic HAP in each coating and other material, and the mass fraction of coating solids for each coating used during each month of the initial compliance period.
- Calculate the total mass of organic HAP in all coatings and other materials, and total mass of coating solids used each month in the controlled operation or group of coating operations. You may subtract from the total mass of organic HAP the amount contained in waste materials you send to a hazardous waste treatment, storage, and disposal facility regulated under 40 CFR part 262, 264, 265, or 266.
- Calculate the organic HAP emissions from the controlled coating operations each month using the capture and control efficiencies determined during the performance test, and the total mass of organic HAP in materials used in controlled coating operations that month.
- Calculate the total mass of organic HAP emissions and total mass of coating solids used for the initial compliance period by adding together all the monthly values for mass of organic HAP emissions and for mass of coating solids for the 12 months in the initial compliance period.
- Calculate the ratio of the total mass of organic HAP emissions to the total mass of coating solids used during the initial compliance period.
- Record the calculations and results and include them in your Notification of Compliance Status.
- Develop and implement a work practice plan to minimize emissions from storage, mixing, and handling of organic HAP-containing materials.

Note that if you choose to use this option for a particular coating operation rather than for the entire affected source, you calculate the organic HAP emission rate using just the materials used in that operation. Similarly, if your facility has multiple coating operations using this option (*e.g.*, a TPO coating operation, an automotive lamp coating operation, an assembled on-road vehicle coating operation, and a general use coating operation), you do a separate calculation for each coating operation to show that each coating operation meets its emission limit. If you are complying with a facility-specific emission limit, you would include all coating operations that are subject to the facility-specific emission limit in the compliance calculations.

If you use a capture system and add-on control device, other than a solvent recovery system for which you conduct liquid-liquid material balances, you use specified test methods to determine both the efficiency of the capture system and the emission reduction efficiency of the control device. To determine the capture efficiency, you would either verify the presence of a permanent total enclosure using EPA Method 204 of 40 CFR part 51, appendix M (and all materials must be applied and dried within the enclosure); or use one of three protocols in § 63.4565 of the final rule to measure capture efficiency. If you have a permanent total enclosure and all materials are applied and dried within the enclosure and you route all exhaust gases from the enclosure to a control device, you assume 100 percent capture.

To determine the emission reduction efficiency of the control device, you conduct measurements of the inlet and outlet gas streams. The test consists of three runs, each run lasting 1 hour, using the following EPA Methods in 40 CFR part 60, appendix A:

- Method 1 or 1A for selection of the sampling sites.
- Method 2, 2A, 2C, 2D, 2F, or 2G to determine the gas volumetric flow rate.
- Method 3, 3A, or 3B for gas analysis to determine dry molecular weight.
- Method 4 to determine stack moisture.
- Method 25 or 25A to determine organic volatile matter concentration. Alternatively, any other test method or data that have been validated according to the applicable procedures in Method 301 of 40 CFR part 63, appendix A, and approved by the Administrator, could be used.

If you use a solvent recovery system, you could choose to determine the overall control efficiency using a liquid-liquid material balance instead of conducting an initial performance test. If you use the material balance alternative, you are required to measure the amount of all materials used in the controlled coating operations served by the solvent recovery system during each month of the initial compliance period, and to determine the total volatile matter contained in these materials. You also measure the amount of volatile matter recovered by the solvent recovery system during each month of the initial compliance period. Then you compare the amount recovered to the amount used to determine the overall control efficiency each month and apply this efficiency to the total mass of organic HAP in the materials used to determine total organic HAP emissions for the month. You total these 12 monthly organic HAP emission values and divide by the total of the 12 monthly values for coating solids used to calculate the emission rate for the 12-month initial compliance period. You record the calculations and results and include them in your Notification of Compliance Status.

Operating Limits. As mentioned above, you establish operating limits as part of the initial performance test of a capture system and control device, other than a solvent recovery system for which you conduct liquid-liquid material balances. The operating limits are the minimum or maximum (as applicable) values achieved for capture systems and control devices during the most recent performance test, conducted under representative conditions, that demonstrated compliance with the emission limits.

The final rule specifies the parameters to monitor for the types of emission control systems commonly used in the industry. You are required to install, calibrate, maintain, and continuously operate all monitoring equipment according to manufacturer's specifications and ensure that the continuous parameter monitoring systems (CPMS) meet the requirements in § 63.4568 of the final rule. If you use control devices other than those identified in the final rule, you submit the operating parameters to be monitored to the Administrator for approval. The authority to approve the parameters to be monitored is retained by EPA and is not delegated to States.

If you use a thermal or catalytic oxidizer, you continuously monitor the appropriate temperature and record it at least every 15 minutes. For thermal oxidizers, the temperature monitor is placed in the firebox or in the duct immediately downstream of the firebox before any substantial heat exchange occurs. The operating limit is the average temperature measured during the performance test and for each consecutive 3-hour period; the average temperature has to be at or above this limit. For catalytic oxidizers, temperature monitors are placed immediately before and after the catalyst bed. The operating limits are the average temperature just before the catalyst bed and the average temperature difference across the catalyst bed during the performance test. For each 3-hour period, the average temperature and the average temperature difference must be at or above these limits. Alternatively, if you develop and implement an inspection and maintenance plan for the catalytic oxidizer, then you are allowed to monitor only the temperature before the catalyst bed and meet only the temperature operating limit before the

catalyst bed and are not required to monitor the difference across the bed.

If you use a regenerative carbon adsorber and do not conduct liquid-liquid material balances to demonstrate compliance, you monitor the carbon bed temperature after each regeneration and the total amount of steam or nitrogen used to desorb the bed for each regeneration. The operating limits are the carbon bed temperature at the time the carbon bed is returned to service (not to be exceeded) and the amount of steam or nitrogen used for desorption (to be met as a minimum).

If you use a condenser and do not conduct liquid-liquid material balances to demonstrate compliance, you monitor the outlet gas temperature to ensure that the air stream is being cooled to a low enough temperature. The operating limit is the average condenser outlet gas temperature measured during the performance test and for each consecutive 3-hour period, the average temperature must be at or below this limit.

If you use a concentrator, you monitor the temperature of the desorption concentrate stream and the pressure drop across the concentrator. These values must be recorded at least once every 15 minutes. The operating limits must be the 3-hour average temperature (to be met as a minimum) and the 3-hour average pressure drop (to be met as a minimum) measured during the performance test.

For each capture system that is not a permanent total enclosure, you establish operating limits for gas volumetric flow rate or duct static pressure for each enclosure or capture device. The operating limit is the average volumetric flow rate or duct static pressure during the performance test, to be met as a minimum. For each capture system that is a permanent total enclosure, the operating limit requires the average facial velocity of air through all natural draft openings to be at least 200 feet per minute or the pressure drop across the enclosure to be at least 0.007 inches water.

Work Practices. If you use a capture system and control device for compliance, you are required to develop and implement on an ongoing basis a work practice plan for minimizing organic HAP emissions from storage, mixing, material handling, and waste handling operations. This plan must include a description of all steps taken to minimize emissions from these sources (*e.g.*, using closed storage containers, practices to minimize emissions during filling and transfer of contents from containers, using spill minimization techniques, placing solvent-laden cloths in closed containers immediately after use, etc.). You must make the plan available for inspection if the Administrator requests to see it.

If you use a capture system and control device for compliance, you are required to develop and operate according to a SSMP during periods of startup, shutdown, or malfunction of the capture system and control device.

F. What Are the Continuous Compliance Provisions?

Emission Limits. If you use the compliant materials option (Option 1), you demonstrate continuous compliance if each coating meets the applicable emission limit and you use no organic HAP-containing thinners and/or other additives, or cleaning materials. If you use the emission rate without add-on controls option (Option 2), you demonstrate continuous compliance if, for each 12-month compliance period, the ratio of kg (lb) organic HAP emitted to kg (lb) coating solids used is less than or equal to the applicable emission limit. You follow the same procedures for calculating the organic HAP emitted to coating solids used ratio that you used for the initial compliance period.

For each coating operation on which you use a capture system and control device (Option 3), other than a solvent recovery system for which you conduct a liquid-liquid material balance, you use the continuous parameter monitoring results for the month as part of the determination of the mass of organic HAP emissions. If the monitoring results indicate no deviations from the operating limits and there were no bypasses of the control device, you assume the capture system and control device are achieving the same percent emission reduction efficiency as they did during the most recent performance test in which compliance was demonstrated. You then apply this percent reduction to the total mass of organic HAP in materials used in the controlled coating operations to determine the emissions from those operations during the month. If there were any deviations from the operating limits during the month or any bypasses of the control device, you account for them in the calculation of the monthly emissions by assuming the capture system and control device were achieving zero emission reduction during the periods of deviation, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device, and the use of these data is approved by your permitting authority. Determine the organic HAP emission rate by dividing the total mass of organic HAP emissions for the 12-month compliance period by the total mass of coating solids used during the 12-month compliance period. Every month, you calculate the emission rate for the previous 12-month period.

For each coating operation on which you use a solvent recovery system and conduct a liquid-liquid material balance each month, you use the liquid-liquid material balance to determine control efficiency. To determine the overall control efficiency, you must measure the amount of all materials used during each month and determine the volatile matter content of these materials. You must also measure the amount of volatile matter recovered by the solvent recovery system during the month, calculate the overall control efficiency, and apply it to the total mass of organic HAP in the materials used to determine total organic HAP emissions each month. Then you determine the 12-month organic HAP emission rate in the same manner described above.

Operating Limits. If you use a capture system and control device, the final rule requires you to achieve on a continuous basis the operating limits you establish during the performance test. If the continuous monitoring shows that the capture system and control device are operating outside the range of values established during the performance test, you have deviated from the established operating limits.

If you operate a capture system and control device with bypass lines that could allow emissions to bypass the control device, you demonstrate that captured organic HAP emissions within the affected source are being routed to the control device by monitoring for potential bypass of the control device. You may choose from the following five monitoring procedures:

- Flow control position indicator to provide a record of whether the exhaust stream is directed to the control device.
- Car-seal or lock-and-key valve closures to secure the bypass line valve in the closed position when the control device is operating.
- Valve closure monitoring to ensure any bypass line valve or damper is closed when the control device is operating.
- Automatic shutdown system to stop the coating operation when flow is diverted from the control device.
- Flow direction indicator to provide a record of whether the exhaust stream is flowing toward the control device.

A deviation would occur for any period of time the bypass monitoring

indicates that emissions are not routed to the control device.

Work Practices. If you use an emission capture system and control device for compliance, you are required to implement, on an ongoing basis, the work practice plan you developed during the initial compliance period. If you did not develop a plan for reducing organic HAP emissions or you do not implement the plan, this would be a deviation from the work practice standard.

If you use a capture system and control device for compliance, you are required to operate according to your SSMP during periods of startup, shutdown, or malfunction of the capture system and control device.

G. What Are the Notification, Recordkeeping, and Reporting Requirements?

You are required to comply with the applicable requirements in the NESHAP General Provisions, subpart A of 40 CFR part 63, as described in the final rule. The General Provisions notification requirements include: initial notifications, notification of performance test if you are complying using a capture system and control device, notification of compliance status, and additional notifications required for affected sources with continuous monitoring systems. The General Provisions also require certain records and periodic reports.

Initial Notifications. If you own or operate an existing affected source, you must send a notification to the EPA Regional Office in the region where your facility is located and to your State agency no later than 1 year after publication of the final rule in the **Federal Register**. For new and reconstructed sources, you must send the notification within 120 days after the date of initial startup or 120 days after publication of the final rule, whichever is later. That report notifies us and your State agency that you have an existing affected source that is subject to the final standards or that you have constructed a new affected source. Thus, it allows you and the permitting authority to plan for compliance activities. You also need to send a notification of planned construction or reconstruction of a source that would be subject to the final rule and apply for approval to construct or reconstruct.

Notification of Performance Test. If you demonstrate compliance by using a capture system and control device for which you do not conduct a liquid-liquid material balance, you must conduct a performance test. The performance test is required no later than the compliance date for an existing affected source. For a new or reconstructed affected source, the performance test is required no later than 180 days after startup or 180 days after **Federal Register** publication of the final rule, whichever is later. You must notify EPA (or the delegated State or local agency) at least 60 calendar days before the performance test is scheduled to begin and submit a report of the performance test results no later than 60 days after the test.

Notification of Compliance Status. You must submit a Notification of Compliance Status within 30 days after the end of the initial 12-month compliance period. In the notification, you must certify whether each affected source has complied with the final standards; identify the option(s) you used to demonstrate initial compliance; summarize the data and calculations supporting the compliance demonstration; and provide information on any deviations from the emission limits, operating limits, or other requirements.

If you elect to comply by using a capture system and control device for which you conduct performance tests, you must provide the results of the tests. Your notification must also include the measured range of each monitored parameter, the operating limits established during the performance test, and information showing whether the source has complied with its operating limits during the initial compliance period.

If you are complying with a single emission limit representing the predominant surface coating activity under § 63.4490(c)(1) of the final rule, include all calculations and supporting documentation for the predominant activity determination. If you are complying with a facility-specific emission limit under § 63.4490(c)(2) of the final rule, include the calculation of the facility-specific emission limit and any supporting information.

Recordkeeping Requirements. You must keep records of reported information and all other information necessary to document compliance with the final rule for 5 years. As required under the General Provisions, records for the 2 most recent years must be kept on-site or be readily accessible from the site (for example, by a computer network); the other 3 years' records may be kept off-site. Records pertaining to the design and operation of the control and monitoring equipment must be kept for the life of the equipment.

Depending on the compliance option that you choose, you may need to keep records of the following:

- Organic HAP content or volatile organic matter content and coating solids content (for all compliance options).
- Quantity of the coatings, thinners and/or other additives, and cleaning materials used during each compliance period. If you are using the compliant material option for all coatings at the source, you may maintain purchase records for each material used rather than a record of the volume used.
- For the emission rate (with or without add-on controls) compliance options, calculations of your emission rate for each 12-month compliance period.
- All documentation supporting initial notifications and notifications of compliance status.

If you demonstrate compliance by using a capture system and control device, you must keep records of the following:

- All required measurements, calculations, and supporting documentation needed to demonstrate compliance with the standards.
- All results of performance tests and parameter monitoring.
- All information necessary to demonstrate conformance with your plan for minimizing emissions from mixing, storage, and waste handling operations.
- All information necessary to demonstrate conformance with the affected source's SSMP when the plan procedures are followed.
- The occurrence and duration of each startup, shutdown, or malfunction of the emission capture system and control device.
- Actions taken during startup, shutdown, and malfunction that are different from the procedures specified in the affected source's SSMP.
- Each period during which a CPMS is malfunctioning or inoperative (including out-of-control periods). The final rule requires you to collect and keep records according to certain minimum data requirements for the CPMS. Failure to collect and keep the specified minimum data would be a deviation that is separate from any emission limits, operating limits, or work practice standards.

Deviations, as determined from these records, must be recorded and also reported. A deviation is any instance when any requirement or obligation established by the final rule including, but not limited to, the emission limits, operating limits, and work practice standards, is not met.

If you use a capture system and control device to reduce organic HAP emissions, you must make your SSMP

available for inspection if the Administrator requests to see it. The plan stays in your records for the life of the affected source or until the source is no longer subject to the final standards. If you revise the plan, you must keep the previous superseded versions on record for 5 years following the revision.

If you are using the predominant activity or facility-specific emission limit alternative, you must keep the records of the data and calculations needed to determine the predominant activity or to calculate the facility-specific emission limit for your facility.

Periodic Reports. Each reporting year is divided into two semiannual reporting periods. If no deviations occur during a semiannual reporting period, you submit a semiannual report stating that the affected source has been in continuous compliance. If deviations occur, you include them in the report as follows:

- Report each deviation from the emission limit.
- Report each deviation from the work practice standards if you use an emission capture system and control device.
- If you use an emission capture system and control device, other than a solvent recovery system for which you conduct liquid-liquid material balances, report each deviation from an operating limit and each time a bypass line diverts emissions from the control device to the atmosphere.
- Report other specific information on the periods of time the deviations occurred.

You also have to include in each semiannual report an identification of the compliance option(s) you used for each affected source and any time periods when you changed to another compliance option.

Other Reports. You are required to submit reports for periods of startup, shutdown, or malfunction of the capture system and control device. If the procedures you follow during any startup, shutdown, or malfunction are inconsistent with your SSMP, you report those procedures with your semiannual reports in addition to immediate reports required by 40 CFR 63.10(d)(5)(ii).

III. What Are the Significant Changes Since Proposal?

A. Applicability

We have revised the applicability section to clarify who is subject to the final rule. Specifically, the section includes activities associated with coating operations such as surface preparation, cleaning, mixing, and storage as long as these activities are associated with coating application at the facility.

We revised the scope of the assembled on-road vehicle subcategory to include the surface coating of fully assembled motor vehicles and trailers, including the coating of any metal substrate on the vehicle. In addition, we amended the assembled on-road vehicle subcategory to include the concurrent coating of parts such as radiator grills that are removed from the fully assembled on-road vehicle to prevent overspray of sensitive systems or equipment and to facilitate full coverage.

We have clarified that when determining whether your facility is below the applicability threshold, you may exclude coatings that meet the definition of non-HAP coating when determining whether you use 378 liters (100 gal) per year, or more, of coatings in the surface coating of plastic parts and products (§ 63.4481(b) of the final rule). Thus, a facility using mostly non-HAP coatings and less than 100 gal per year of HAP-containing coatings will not be subject to the final rule. In addition, we have included a definition of "non-HAP coating" in the final rule.

B. Scope of Category

We have clarified the scope of the final rule to exclude surface coating operations using only coatings, thinners and other additives, and cleaning materials that contain no organic HAP. We also excluded surface coating of plastic that is subject to several other NESHAP. In addition, we included a provision that allows sources that meet the applicability criteria of both the final rule and the Automobiles and Light-Duty Trucks NESHAP to comply with the Automobiles and Light-Duty Trucks NESHAP for all their surface coating operations associated with the manufacturing of automobiles or light-duty trucks in lieu of complying with each subpart separately.

C. Emission Limits

The emission limits remain as proposed, except for the TPO subcategory. The new source TPO limit increased from 0.17 to 0.22 kg (lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period (see § 63.4490(a)(3)). The existing source TPO limit increased from 0.23 to 0.26 kg (lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period (see § 63.4490(b)(3)). The changes were the result of additional data and information from commenters resulting in revised emission rate estimates for some sources in the TPO subcategory.

D. Method for Determining HAP Content

In the final rule, we have included a method for determining the HAP content for reactive adhesives based on the HAP actually emitted, rather than determining the mass fraction of organic HAP in the coatings using Method 311 or Method 24. Facilities may use the alternative method for reactive adhesives contained in appendix A to the final rule. In addition, we included a provision for reactive adhesives to allow facilities to rely on manufacturer's data that expressly states the organic HAP mass fraction emitted.

E. Deviations From Operating Parameters

The proposed rule stated that if your add-on control system deviates from the operating limit specified in Table 1 to subpart PPPP of 40 CFR part 63, then you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation. We have written the final rule to allow the use of other data to indicate the actual efficiency of the emission capture system and add-on control device, as long as the use of these data is approved by the respective permitting authority.

F. New Alternatives To Facilitate Compliance With Multiple Coating NESHAP and Multiple Emission Limits

The final rule allows facilities subject to more than one surface coating emission limit to comply with each applicable emission limit separately or to adopt one of two alternatives. The first alternative allows all coating operations to comply with the emission limit representing the predominant surface coating activity at the facility (the predominant activity means the surface coating activity representing 90 percent or more of the total surface coating activity).

The predominant activity approach is also available for sources that are subject to more than one subcategory emission limit. That is, a source may determine which subcategory represents 90 percent or more of the coating activities that take place at the facility, and then have all coating operations at the facility comply with the emission limit that represents the predominant activity.

The second alternative allows a facility to comply with a facility-specific emission limit calculated from the relative amount of coating activity that is subject to individual emission limits. The facility-specific emission limit may

include separate emission limits from one or more applicable NESHAP.

You must include all surface coating activities that meet the applicability criteria of a subcategory in a surface coating NESHAP and constitute more than 1 percent of total coating activities. Coating activities that meet the applicability criteria of a subcategory in a surface coating NESHAP but comprise less than 1 percent of total coating activities need not be included in the facility-specific emission limit calculation but they must be included in the compliance calculations.

Another approach that you may use is the equivalency by permit option in 40 CFR part 63, subpart E (§ 63.94). Under this approach, you may design an emissions control program that is suited for your process or plant as long as you can demonstrate that your program will achieve the same emissions reductions as the NESHAP. You must then work with your State, local, or tribal air pollution control agency to submit an equivalency demonstration. This equivalency demonstration will be reviewed by the appropriate EPA Regional Office. The equivalency demonstration is approved as part of the operating permit approval process. For more information, please see the section 112(l) Web site at *http://www.epa.gov/ttn/atw/112(l)/112-lpg.html.*

IV. What Are the Responses to Significant Comments?

For the full set of comment summaries and responses, refer to the BID (National Emission Standards for Hazardous Air Pollutants: Surface Coating of Plastic Parts and Products, August 2003, EPA–453/R–03–007), which contains EPA's responses to each public comment and is available in Docket ID No. OAR–2002–0074 (formerly Docket No. A–99–12).

A. Applicability and Scope of Source Category

Comment: Several commenters requested that the applicability threshold be increased from 100 gal per year to 250 gal per year to be consistent with the applicability threshold in the miscellaneous metal parts and products rule. One commenter believes uniformity is necessary for facilities subject to both rules. One commenter further requested that use of HAP-free materials should not count toward the applicability threshold level.

Several commenters also requested that coatings used in volumes of less than 50 gal per year (not to exceed a total of 100 gal per year) be exempt from the final rule and noted that a similar exemption is part of the proposed NESHAP for miscellaneous metal parts and products. Another commenter requested the same exemption, but asked that a total of up to 250 gal per year be eligible because that is the level in the Miscellaneous Metal Parts and Products NESHAP. Another commenter requested that the allowed facility total be 500 gal per year.

Response: The applicability threshold of 100 gal or more per year has not been revised, and the final rule does not contain the suggested provision that coatings used in small volumes (less than 50 gal per year, not to exceed 100 gal per year) should be exempt from the emission limits.

The applicability threshold of 100 gal or more per year of coating was selected based on an analysis of the data provided to the EPA through the plastic parts and products industry survey. These data indicate that sources using 100 gal or more per year of plastic part surface coating materials were engaged in surface coating as part of their primary activity and those using less than this amount were not. Moreover, facilities using 100 gal or more per year apply coatings using similar processes and control techniques, making the emission limits and emission reduction requirements relevant to all sources of this size or larger. Since the threshold is based on an analysis of data from the actual facilities that will be subject to the rule, the final rule does not revise the threshold.

In response to comment, we have changed the rule to clearly state that the use of non-HAP materials (as defined in the rule) does not count towards the 100 gal applicability threshold in the final rule. This would avoid a situation where a source would be subject to the final rule even though it was using mostly non-HAP coatings and less than 100 gal per year of HAP-containing coatings. Because the purpose of the final rule is to control HAP, we agree that it is appropriate to consider only HAP-containing coating in determining whether a source meets the applicability threshold.

The final rule does not include the exemption for small volumes of individual coatings (less than 50 gal per year). In determining MACT, EPA included all reported coatings, even those used in small volumes, in the emission rate for each source. Since small volume coatings were included in the emission rate for each source, the emission limits should be achievable for sources that include all coatings in their compliance demonstrations.

Comment: One commenter suggested including all lamps that are subject to National Highway and Traffic Safety Administration regulations for vehicle lamps (49 CFR 571.108) in the headlamp subcategory. The commenter noted that all vehicle exterior lamps must meet the same Federal safety standards and technical requirements for coatings that warranted the separate subcategory for headlamps. The reflective finishes on tail lamps and other lamps, therefore, require the use of the same argent reflective coatings and HAP-containing solvents that are used on headlamps.

Response: We agree with the commenter and have revised the scope of the headlamp coating subcategory to include coating operations on all exterior automotive lamps (headlamps, tail lamps, turn signals, brake lights, and side marker lights). To reflect the broader content of this subcategory, we have also changed the name of the subcategory to "automotive lamp coating." This change in the scope of this subcategory, however, has not affected the results of the MACT analysis that are the basis for the emission limits for this subcategory.

B. Overlap With Rules for Other Source Categories

Department of Defense Coatings

Comment: One commenter stated that EPA should establish a separate source category for DoD surface coating operations not covered by the Aerospace or the Shipbuilding and Ship Repair NESHAP (40 CFR part 63, subparts GG and II, respectively) and exempt these coating operations from the final rule for plastic parts. The commenter described the unique material requirements and operating conditions for military coating operations that are different from commercial operations. The commenter claimed that the proposed compliance options would be impractical and extremely costly for DoD facilities because of the complexity of military coating operations, the number of coatings and solvents used, and the number of different items and substrates coated. Many DoD installations (especially those that service or remanufacture artillery, armored vehicles, weapons systems, and support equipment) use thousands of different coatings, and each material is subject to its own military specification.

Because DoD facilities use HAP-containing solvents, the commenter claimed they could not use the proposed compliant materials option. Reformulating solvents or coatings requires extensive field testing before they may be approved for use in tactical field equipment and weapons systems. In addition, updating the coatings for

which there is a military specification requires updating the documentation applicable to military specifications and the documentation for the relevant equipment and weapons systems that adopt those military specifications.

The proposed emission rate option and the add-on controls option are not feasible because they would require DoD to be able to accurately track the amount of coating or cleaning solvent used on each item or substrate. As noted above, DoD installations may use thousands of different coatings on a variety of substrates, including metal, plastic, ceramics, rubber, fabric, wood, and composites.

The commenter requested a separate source category so that emission limits and a regulatory format could be developed that would be most appropriate for military coating needs. The commenter claimed that a separate rule also would ensure that all DoD coatings could comply with emission limits using the same units of measure. The commenter noted that DoD facilities use many of the same high performance coatings on plastic and metal items and substrates, and they could be potentially regulated by both the NESHAP for plastic parts and products and the NESHAP for miscellaneous metal parts and products.

Response: After several visits to DoD surface coating operations and meetings with DoD stakeholders, EPA agrees that a separate source category for DoD surface coating operations is warranted. One factor that we considered in this decision is the unique military specifications for coatings used on tactical and other military equipment. Further data collection and analysis are required to determine what emission limits are achievable for these coating operations. Another factor that we considered is the issue that military facilities may use thousands of different coatings, and that the types of equipment that are coated and the types of coatings used in a given time period are unpredictable and often influenced by world events. Further analysis is needed to determine what emission limit formats, compliance demonstration, and recordkeeping requirements are practical for this type of situation. Another consideration was the high probability that these sources would be subject to multiple NESHAP.

The EPA will be developing separate NESHAP for "Defense Land Systems and Miscellaneous Equipment" surface coating operations. Those NESHAP will include operations that do not meet the applicability criteria of the Aerospace NESHAP or the Shipbuilding and Ship Repair NESHAP. The comments pertaining to the format of the standards and appropriate compliance options will be taken into consideration in the development of those NESHAP.

Exclusion of Activities Subject to Other Surface Coating NESHAP

Comment: One commenter requested that surface coating of plastic subject to the Paper and Other Web Coating NESHAP (40 CFR part 63, subpart JJJJ) be included in the list of coating operations that are exempt from the final rule.

Response: The final rule specifically exempts the surface coating of plastic web substrates. The EPA agrees that the coating of plastic web substrates that is already subject to the Paper and Other Web Coating NESHAP should not be subject to additional regulation under the final rule. This change will clarify the applicability of both NESHAP.

Comment: One commenter strongly recommended that one rule, either the final rule or 40 CFR part 63, subpart MMMM, apply to all assembled on-road vehicles. According to the commenter, motor home manufacturers offer customers numerous options that determine the surfaces of each vehicle. The commenter claimed that a substrate tracking program would need to be broken down to individual work orders to meet the requirements for calculating and demonstrating compliance with both subparts.

Response: The EPA agrees with the commenter. Both the final rule and 40 CFR part 63, subpart MMMM state that the surface coating of all assembled on-road vehicles, including the coating of any metal substrate on the assembled vehicle, will be subject to only the emission limits of the assembled on-road vehicle subcategory in the final rule. This is consistent with the data and methodology used to set the MACT emission limit for the assembled on-road vehicle subcategory. A separate assembled on-road vehicle subcategory was established because of the large size of assembled on-road vehicles and the fact that assembled vehicles frequently contain heat-sensitive parts that prevent the use of curing ovens and various low-HAP coating technologies. However, the coating of metal parts prior to the assembly of the vehicle, such as a motor home chassis, will still be subject to 40 CFR part 63, subpart MMMM. Likewise, the surface coating of plastic parts prior to the final assembly of the motor home will be subject to either the general use, automotive lamp, or TPO emission limit in the final rule, as appropriate for the type of coating operation.

Comment: One commenter requested that EPA clarify that the Aerospace NESHAP (40 CFR part 63, subpart GG), rather than the Plastic Parts NESHAP, cover parts necessary for the proper functioning of aircraft. Another commenter requested the final rule clarify that all aerospace coating, cleaning, and depainting activities are subject to the Aerospace NESHAP and exempt from subpart PPPP. The commenter stated that the proposal preamble indicated that coating activity exempted from the Aerospace NESHAP would be subject to the NESHAP. The commenter argued that the Aerospace NESHAP found that MACT controls were not warranted for certain aerospace surface coating operations and that regulating these operations under the final rule would be an unexplained change in policy. Another commenter maintained that EPA has not demonstrated that the aerospace rework industry can cost-effectively achieve the general use emission limit. The commenter noted that many coatings for plastic surfaces and parts associated with the interior of aircraft must meet Federal Aviation Administration or Original Equipment Manufacturer specifications.

Another commenter suggested that the final rule include an alternative compliance option for facilities subject to the final NESHAP under development for the surface coating of automobiles and light-duty trucks that also coat plastic parts that would not be subject to the Automobiles and Light-Duty Trucks NESHAP. The commenter noted that some automobile and light-duty truck facilities will be subject to the final rule for plastic parts coating, the NESHAP for the surface coating of automobiles and light-duty trucks, and the Miscellaneous Metal Parts and Products NESHAP. The commenter suggested that a source be allowed to comply with the final NESHAP for automobiles and light-duty trucks for all coating operations if the principle activity is the surface coating of automobiles and light-duty truck bodies. The commenter noted that the plastic and metal parts coating operations are often integrated with the body coating operations, since all three coating operations may share common coating supplies, application equipment, cleaning solvents, and emission controls. The shared equipment and materials could make tracking separate compliance for each NESHAP overly burdensome and would reduce the certainty of compliance.

One commenter requested that EPA clarify that shipbuilding or ship repair surface coating operations are subject to only the Shipbuilding and Ship Repair NESHAP (40 CFR part 63, subpart II).

The commenter noted that the Shipbuilding and Ship Repair NESHAP covers only paints and thinners, and does not cover caulks, sealants, and adhesives. Since the plastic parts rule covers all coating materials, the commenter was concerned that it would cover those materials that were not specifically addressed by the Shipbuilding and Ship Repair NESHAP and will make shipbuilding and ship repair sources subject to multiple NESHAP.

Response: We agree with the commenter that coating operations that are addressed in the Aerospace NESHAP, and for which EPA determined that MACT controls were not needed, are not intended to be regulated under the Plastic Parts and Products NESHAP. To clarify this intent, the final plastic parts rule includes a provision that specifies that the final rule does not apply to coatings that meet the applicability criteria for the Aerospace NESHAP (40 CFR part 63, subpart GG). In addition, the final rule excludes the application of specialty coatings, as defined in appendix A to subpart GG, to metal parts of aerospace vehicles or components.

The coating of plastic parts that would not meet the applicability of the Aerospace NESHAP or that would not require any of the specialty coatings defined in appendix A to 40 CFR part 63, subpart GG would be subject to the plastic parts final rule. Information provided during the comment period indicates that any plastic coating activities would comprise less than 5 percent of total coating activities at an aerospace facility. Consequently, the facility could elect to comply with the predominant activity compliance alternative to reduce its recordkeeping and reporting burden.

We agree that the final rule for the surface coating of plastic parts is not intended to apply to coating operations that meet the applicability criteria of the Shipbuilding and Ship Repair NESHAP. Although the Shipbuilding and Ship Repair NESHAP did not establish emission limits for sealants, caulks, and adhesives used in shipbuilding or ship repair, such types of coatings used for shipbuilding or ship repair operations are more appropriately addressed under the Shipbuilding and Ship Repair NESHAP. The review of the Shipbuilding and Ship Repair NESHAP, required by section 112(d)(6)of the CAA, is an appropriate mechanism for evaluating whether emission limits are needed for sealants, caulks, and adhesives used in shipbuilding or ship repair.

For sources that will be subject to the final Automobiles and Light-Duty Trucks NESHAP, the final plastic parts and products rule includes a provision to mitigate the overlap at these facilities. For these plastic part surface coating operations, a facility has the option to comply with the requirements of the final Automobiles and Light-Duty Trucks NESHAP as long as the plastic parts are for use in automobiles or light-duty trucks.

Complying With the Rule Representing the Majority of the Substrate (Plastic or Metal) on Pre-Assembled Parts

Comment: Several commenters supported this option in the proposed rule. However, one commenter requested that this option be revised to include facilities that coat both metal and plastic components separately, as well as those that coat multi-substrate parts. The commenter noted that this would prevent a source from having to track the amount of coating applied to individual parts in a coating operation when a source coats separate plastic and metal parts and preassembled parts that contain plastic and metal on the same line.

Several other commenters did not support the proposed option. One commenter claimed that the proposed rule is unclear and overly burdensome for facilities that coat both metal and plastic parts (which may not be pre-assembled) and that this compliance option would help few, if any, facilities. One commenter noted that because the same cleaning solvents are used for multiple substrates and coating operations, it would be extremely difficult to determine the quantity used for plastic parts and products versus other substrates. Another commenter noted that the relative amount of plastic and metal coated at a facility could change over time and a facility could potentially fluctuate between applicable NESHAP.

Response: We recognize and appreciate some of the problems that were identified with this approach by the commenters. Although some commenters supported this approach, it is not included in the final rule. The final rule instead offers more practical compliance approaches, including a predominant activity and a facility-specific emission limit alternative, as described in this preamble.

Comply With the Most Stringent NESHAP

Comment: Several commenters supported this provision. One commenter agreed that complying with only one NESHAP would prevent excessive monitoring, recordkeeping, and reporting. One commenter suggested that this option would require less recordkeeping than tracking and determining which substrate represents the greatest coating activity.

However, several commenters stated that different units of measure (*e.g.*, lb organic HAP per lb solids versus lb organic HAP per gal solids) make it difficult to determine which surface coating NESHAP among several is more stringent. Additionally, one commenter noted that case-by-case demonstrations of relative stringency based on total estimated annual emissions are difficult because of the different standards and units of measure in the various NESHAP. One commenter noted that when different NESHAP have different methods of compliance demonstration, sources must track and allocate material usage differently for different parts. Cleaning solvents in particular are a problem, since some NESHAP emission limits include cleaning solvents while others impose work practices instead.

One commenter noted that the rule as proposed places the burden on the source to determine the most stringent limit, and that the different units used for different surface coating rules may cause a source to mistakenly fall out of compliance through miscalculation or misunderstanding.

Several commenters suggested options so that sources would not have to determine which rule is most stringent on a case-by-case basis. Some commenters suggested that the relative stringency of different NESHAP should be stated in each rulemaking so that facilities subject to more than one NESHAP do not need to perform a case-by-case determination of which applicable rule is most stringent. Another commenter suggested that the different surface coating rules contain factors or equations so a source could convert emission limits from one unit to another (*e.g.*, lb organic HAP/lb solids to lb organic HAP/gal solids).

One commenter recommended that EPA allow facilities subject to both the Plastic Parts and Products NESHAP and the Miscellaneous Metal Parts and Products NESHAP the option of complying with the standards of their choice since both NESHAP will significantly reduce organic HAP emissions.

Response: Through clarification of the applicability provisions of the final rule, as described in this preamble, we have significantly reduced the potential for sources to be subject to multiple surface coating NESHAP. However, we recognize that some sources may be subject to both the final rule and the

miscellaneous metal parts rule, and possibly other NESHAP. We agree with the commenters who argued that demonstrating compliance with the most stringent NESHAP is complicated by the fact that it is hard to determine which NESHAP is most stringent because of differences in units, the affected source targeted (*e.g.*, whether cleaning is included in the emission limits), and compliance periods. Therefore, the option of complying with the most stringent NESHAP is not included in the final rule. Instead, the final rule provides the predominant activity and facility-specific emission limit compliance alternatives, as described in this preamble.

Predominant Activity Compliance Option

Comment: Several commenters supported the predominant activity compliance option. One of the commenters preferred the "predominant activity" compliance option only if it is based on estimates of surface area coated. The commenter provided as an example a truck manufacturing facility that could estimate the total surface area coated by using truck part design information for each truck and tracking the number of trucks manufactured each year.

Several commenters recommended that the predominant activity demonstration be made only at the time a source applies for or renews its operating permit under title V or when the source becomes subject to regulations applicable to new source review or prevention of significant deterioration. The commenters noted that a "one-time" or periodic demonstration would reduce the recordkeeping burden and avoid the potential for some facilities to fluctuate back and forth between two applicable NESHAP if predominant activity was tracked over a short time frame.

Response: The final rule provides two alternatives for reducing the burden associated with complying with more than one coating NESHAP or with more than one subcategory emission limit. The first alternative allows a facility to identify its predominant type of coating activity and comply with the NESHAP or the subcategory emission limit that applies to that activity for all coating operations. The predominant activity is defined as the activity that represents 90 percent or more of the surface coating that occurs at a facility. The second alternative allows a facility to calculate and comply with a facility-specific emission limit.

We have analyzed the relative differences in emission limits that are included in the predominant activity compliance option, as it would apply to the NESHAP for plastic parts and products and the NESHAP for miscellaneous metal parts and products. We have determined, for certain subcategories, that the environmental benefit of complying with the emission limit for the predominant activity is essentially equivalent to complying separately with each emission limit. For subcategories where the environmental benefit would not be substantially equivalent to complying with each standard separately, the predominant activity alternative is not provided. The predominant activity alternative does not apply to coating operations that are subject to the assembled on-road vehicle or automotive lamp emission limits in the final rule. These emission limits reflect the need for specialized performance requirements that can currently be accomplished only with materials that contain substantially higher HAP than materials used at other types of coating operations. It would be inappropriate to allow coating operations that can be performed with lower-HAP materials to comply with substantially higher-HAP emission limits than would otherwise be applicable.

Under the predominant activity alternative, if all coating operations comply with the emission limit applicable to the predominant activity, the facility will be considered in compliance with the emission limits otherwise applicable to the minority surface coating operations (*i.e*, those that amount to less than 10 percent of the coating activity).

The predominant activity determination could be based on representative coating data from the prior 1 to 5 years of operation for existing sources, or it could be based on reliable projections for future operations. For new sources, the determination would be based on projections of coating activity for the next 1 to 5 years or other period that is believed to represent future coating operations.

We believe the most appropriate basis for the predominant activity determination is the percentage of coating solids that is applied to parts subject to different emission limits. A facility would not need to measure the amount of coating solids used on different parts and products to determine the relative amount of coating activity subject to different emission limits. Instead, a facility could use other reliable and verifiable information including, but not limited to, product design, volume of coatings used, or the number of different parts and products coated during a representative period as long as it is approved by the permitting authority.

Create a Subcategory for Overlap Sources or Job Shops

Comment: One commenter suggested that developing subcategories for facilities subject to multiple NESHAP would not be feasible because EPA might need to create several subcategories to address different combinations of NESHAP. Another commenter stated that a subcategory for mixed coating operations could not be considered as an option without a proposed numerical emission limit. The same commenter claimed that emission limits for this option can not be developed based on the current MACT database.

Response: We agree with the commenters that this option is not feasible for several reasons. First, as stated in the proposal preamble (67 FR 72280, December 4, 2002), this option may not afford as much operating flexibility as other options being considered. Second, we did not have sufficient data to develop emission limits since most sources responding to the plastic parts and miscellaneous metal parts industry surveys tended to provide only data relevant to those surveys and the surveys were completed by sources that were more or less dedicated to one substrate or another. As a result, we did not have representative or accurate data from those sources most likely to be subject to this type of emission limit. Finally, as one commenter alluded to, even if useful data became available, an emission limit for these "job shop" sources would need to be proposed for public comment.

Expand the Definition of the Source Category and Subcategories To Include Incidental Surface Coating Operations

Comment: One commenter stated that an approach for "incidental" surface coating operations, would not be useful for sources such as truck manufacturers because neither plastic nor metal coating is incidental to their operations. Another commenter claimed that the incidental surface coating operations option may provide some relief.

Response: The final rule does not expand the definition of the plastic parts and products or miscellaneous metal parts and products source categories or subcategories to include incidental surface coating operations. However, as described previously, under the predominant activity compliance alternative in the final rule,

a source may comply with the emission limit that represents 90 percent or more of the coating activity at a source. For both the predominant activity and facility-specific emission limit alternatives, you may exclude coating activities that meet the applicability criteria of other surface coating NESHAP as long as these coating activities do not constitute more than 1 percent of total coating activities. Although these incidental coating activities can be excluded from the emission limit calculation or predominant activity determination, the coating activities must be included in the facility-wide compliance calculation.

Comments on the Proposal To Establish a Multi-Component Emission Limit

Comment: One commenter disagreed with EPA's suggestion of setting a multi-component emission limit for several reasons. The commenter did not think it would reduce recordkeeping because in both cases (separate compliance and a multi-component emission limit) a source would have to track the amount of each coating applied to each substrate in each subcategory. The commenter also contended that this approach would likely increase emissions compared to compliance with the individual limits, but did not provide any supporting explanation. The commenter was also concerned that some facilities could operate out of compliance if the emission limit does not accurately reflect the mix of substrates that they coat. Finally, the commenter believed that this option would amount to emissions averaging across subcategory boundaries and would contradict CAA section 112(d)(3), which mandates that standards for a subcategory cannot be less stringent than the MACT floor for the subcategory.

Several other commenters, however, supported this approach. One commenter argued that restricting emission averaging among coating operations discourages innovative and environmentally beneficial approaches to low-HAP coatings. The commenter argued that allowing averaging would promote more cost-effective regulation of HAP emissions while achieving an overall environmental benefit. The commenter also argued that the same flexible approach should be incorporated for meeting the requirements of multiple NESHAP at the same facility, as well as meeting multiple emission limits within a single NESHAP.

One commenter supported the idea of a source subject to two or more subcategory limits (*e.g.*, TPO and general use) to calculate a source-specific multi-component emission limit based on the relative amount of coating solids used on each plastic substrate. However, the commenter recommended that EPA not require a facility to calculate the limit each month and instead be allowed to calculate it annually or when renewing its permit.

While not commenting directly on this option, many commenters also expressed concern that many sources coat both plastic and metal parts, often using the same coatings and cleaning solvents. According to these commenters, requiring a facility to demonstrate compliance with separate emission limits in two or more surface coating NESHAP would be difficult and burdensome. These comments have been summarized earlier in this section.

Response: Through clarification of the applicability provisions of the final rule, as described in this preamble, we have significantly reduced the potential for sources to be subject to multiple surface coating NESHAP. In addition, EPA is providing in the final rule, the opportunity for a source to determine and comply with a facility-specific weighted emission limit for all coating operations that take place at the source. The emission limit would be weighted according to the relative amount of coatings used that would be subject to separate emission limits. This alternative emission limit may include applicable emission limits from two or more NESHAP.

In calculating the facility-specific emission limit, the basis for the weighting of the individual emission limits must be the mass of coating solids used in each subcategory. The mass coating solids used in the different coating operations may be calculated by a variety of methods, as long as it is accepted by the permitting authority. For example, in some cases a facility that uses the same coating for plastic and metal parts may be able to use the design specifications of the parts coated and the numbers of each type of part coated to calculate the weight of coating solids used for metal and plastic surfaces subject to the individual emission limits. In other situations, actual records of coating usage for each operation may be needed to provide a valid calculation.

In calculating a facility-specific emission limit for operations subject to NESHAP with emission limits in different formats, you will need to convert emission limits to the same format. To do so, you must use a default value for solids density of 12.5 lbs solids per gal solids (1.50 kg solids/liter solids) to convert emission limits in the Miscellaneous Metal Parts and Products NESHAP that are in "HAP per volume solids" to the "HAP per mass solids" units of the Plastic Parts and Products NESHAP. This default value was calculated from the weighted-average solids density of coatings in the metal parts survey database and represents the average solids density of metal parts coatings.

The following example illustrates how the facility-specific emission limit may be used. Assume a facility has three coating operations subject to the following emission limits:

- Plastic parts general use (0.16 lb organic HAP/lb solids);
- Plastic parts TPO (0.26 lb HAP/lb solids); and
- Miscellaneous metal parts general use (2.6 lb organic HAP/gal solids).

The three coating operations used the following pounds of coating solids in the 12 months of the compliance period:

- Plastic parts general use: 30,000 lbs;
- Plastic parts TPO: 30,000 lbs; and
- Miscellaneous metal parts general use: 40,000 lbs.

First, the miscellaneous metal parts general use emission limit must be converted to lb organic HAP/lb solids units as in the plastic parts rule. For this example, we will use the default solids density of 12.5 lb solids per gal solids:

$$\frac{2.6 \text{ lb HAP}}{\text{gal solids}} \times \frac{1 \text{ gal solids}}{12.5 \text{ lb solids}} = \frac{0.21 \text{ lb HAP}}{\text{gal solids}}$$

Next, the facility-specific emission limit is calculated using Equation 1 in § 63.4490 of the final rule:

$$\frac{(0.16)\,(30{,}000) + (0.26)\,(30{,}000) + (0.21)\,(40{,}000)}{(30{,}000 + 30{,}000 + 40{,}000)} = \frac{0.21 \text{ lb HAP}}{\text{lb solids}}$$

If all coating operations comply with an emission limit of 0.21 lb organic HAP/lb solids and with the other compliance provisions of the final rule, the facility will be in compliance with the final rule for that compliance

period. The calculation must be repeated for each 12-month compliance period. In this example, compliance will also constitute compliance with the Miscellaneous Metal Parts and Products NESHAP for the metal parts coating operations. The facility may use either the compliant materials option, the emission rate without add-on controls option, or the emission rate with add-on controls option to demonstrate compliance with the facility-specific emission limit.

This approach is consistent with the CAA because the emission limits from which the facility-specific emission limit would be calculated are based on the MACT emission limits for each applicable coating operation. We believe that overall emissions would be essentially the same as if each coating operation were complying separately with each applicable emission limit. The facility-specific emission limit needs to be calculated each month of the 12 month compliance period because of the wide differences in the various emission limits available for inclusion. A relatively small change in the mix of coating operations conducted during a compliance period may have a significant effect on the weighted emission limit. Thus, it would not be appropriate for a facility to establish and maintain a fixed facility-specific emission limit based on historical data or long term projections.

In the final rule, the facility-specific emission limit and predominant activity alternatives provide sources with comprehensive and flexible approaches that will reduce the recordkeeping associated with sources that coat multiple substrates and whose workload could fluctuate over time. These alternatives reduce the likelihood of overlap among multiple surface coating NESHAP.

C. The MACT Floor Approach and Database

Comment: Several commenters requested that the rule be revised to either exempt solvent blends from HAP limits or change the MACT floors to reflect the default HAP contents. One commenter noted that when sources provided EPA with coating data they were not aware that solvent blends contained HAP, and therefore did not report any HAP content in these materials. Therefore, according to the commenters, using the default HAP contents in the rule, as proposed, to determine compliance is not consistent with the MACT floor. Other commenters requested that EPA verify that the manner in which solvent blends were accounted for in the database is consistent with the default HAP fractions in Tables 3 and 4 of this preamble.

Response: When we analyzed the data provided to us in establishing the MACT floor for the general use, automotive lamp, and TPO subcategories, we accounted for the HAP in solvent blends, consistent with Tables 3 and 4 of this preamble. Therefore, no adjustments to the proposed limits are necessary to account for the HAP in solvent blends.

For the assembled on-road vehicle subcategory, the proposed limits are based on data provided to EPA that, according to the commenters, did not account for the HAP in solvent blends. We have reviewed more detailed HAP data from EPA surveys for sources in this subcategory. Based on these data, the HAP from solvent blends accounts for only about 0.1 percent of all HAP emitted from the coating operations at these sources. Therefore, we believe that no adjustment in the emission limit for the assembled on-road vehicle subcategory is needed to account for the HAP in solvent blends that will be included in the compliance calculations.

Comment: Several commenters provided additional data that resulted in revised emission rates for some of the MACT floor facilities in the TPO subcategory. Two commenters expressed concern that the MACT floor database could contain errors that were still undetected. The commenters were also concerned that some coating materials could not be accurately linked to specific subcategories at several sources that had coating operations in more than one subcategory. The commenters recommended adding a 20-percent correction factor to the proposed emission limits to account for potential errors that had not yet been identified and to account for materials that were not linked to specific subcategory coating operations.

Two commenters also questioned EPA's assumptions about capture efficiency and the approach for dividing HAP emissions among the spray booth, flash-off, and curing ovens for those facilities that did not supply specific information when estimating emission rates for sources with add-on controls. The commenters questioned whether EPA should have assumed 100 percent capture efficiency for total enclosures when data for some sources indicated only about 65 percent capture efficiency. The commenters also argued that the majority of emissions (about 80 percent) occur in the spray booth and that it is inappropriate to divide emissions evenly among the spray booth, flash-off area, and the oven and drying area. Both commenters stated that these estimates affect the estimated HAP emissions from the floor facilities.

One commenter requested that EPA modify the emission limits for TPO because the proposed limits are not practically achievable for solventborne systems, or the final rule should include a predominant activity option for TPO surface coating sources that are also subject to the automobile and light-duty truck NESHAP. The commenter argued that because the floor facilities for existing sources in the TPO category include both waterborne and solventborne technologies, solventborne facilities are faced with disadvantages in meeting the standards. The commenter stated that problems arise because it is not economically feasible to convert to waterborne coatings and waterborne coatings do not meet all customer needs. The commenter also noted that some operations could not meet the emission limit even with add-on controls. The commenter noted that in the proposal preamble, EPA concluded that waterborne coatings and add-on controls were not feasible as options more stringent than the MACT floor for existing TPO surface coating operations.

Response: We have evaluated the additional data provided on the sources in the TPO subcategory and have corrected the emission rates for these sources where appropriate, and recalculated the MACT floor (the average emission rate of the best-performing five sources for existing sources). The final emission limits reflect those changes, and are higher than the proposed emission limits for new and existing sources. In addition, the data and analysis for each of the MACT floor facilities for each subcategory were checked against the original survey response for each facility and no other corrections were identified that would warrant additional changes to the limits. Since we have adopted the specific data corrections noted by the commenters and have confirmed the other data used in establishing the emission limits for each subcategory, we see no need to increase the limits by 20 percent as suggested by the commenters.

We disagree with the commenter that the TPO emission limits should be revised to exclude sources using waterborne coatings or add-on controls. The commenter provided no data or information that would indicate that these sources should be put into a separate subcategory or subject to a separate emission limit from those that are using solventborne coatings. The products being coated by the lower-emitting "MACT floor" facilities are

similar to those being coated by the rest of the sources in the subcategory. Therefore, these sources need to be included in the MACT analysis for TPO coating and the emission limit for existing TPO sources can be no less stringent than the average emission limit of the five best controlled sources. Existing facilities have the flexibility to meet these limits in a variety of ways, including use of waterborne coatings, use of other low-HAP coating or cleaning materials, add-on controls, or a combination of these. In addition, the final rule includes a compliance alternative for sources subject to the Automobile and Light-Duty Truck NESHAP where compliance with that NESHAP for all plastic part coating operations constitutes compliance with this rule. Also, the final rule includes a predominant activity compliance alternative suggested by commenters as an alternative for TPO sources that are located at sources that are also subject to other surface coating NESHAP, and also includes the facility-specific emission limit alternative. These three alternatives that were not included in the proposed rule will increase the compliance flexibility for sources that are potentially subject to the TPO emission limit.

Comment: One commenter requested the final rule move marine engine plastic part coatings from the general use category to either a separate category or a category that more accurately reflects performance and durability requirements for marine engine parts. Another commenter believes that the general use emission limits are more stringent than the miscellaneous metal parts emission limits and believes the plastic parts rule will be difficult and expensive to meet. The commenter noted that coating of the large plastic cover on a stern drive or inboard marine engine enhances the appearance of the engine and protects it in a harsh marine environment.

Another commenter stated that it is not technically feasible for coatings used on personal water craft (PWC) to meet the emission limits from the general use category. The commenter believes PWC coatings need a separate category that more accurately reflects PWC's performance and durability requirements. The PWC are consumer products and the product is judged by its ability to maintain appearance in a harsh marine environment. In this respect, the coating serves as a protective coating for the fiberglass laminate of the PWC hull and deck. The commenter argued that compliant coatings and alternative coating technology, such as electro-deposition coating and powder coating, are not acceptable because they do not have a high-quality finish for high-visibility products. To resolve this issue, one commenter requested the general use emission limits be harmonized and suggested that PWC could meet a limit based on combined compliance with the plastic parts and miscellaneous metal parts general use emission limits. The commenter indicated that compliance would be facilitated if they could offset higher emissions from the plastic part coating operations.

Response: The commenters did not provide data to support the claim that the coatings used on PWC or marine engine covers could not meet the proposed emission limits, or to support the development of alternative emission limits. Therefore, the final rule does not contain a separate category or emission limit for PWC or marine engine cover coating operations. However, a source coating both metal and plastic parts will be allowed to calculate a facility-specific emission limit based on the relative amount of coating performed on each substrate. This approach will allow facilities that coat PWC or engine covers more flexibility in complying with the limits for their plastic part surface coating operations.

D. Compliance Options for Meeting the Emission Limits

Comment: One commenter stated that the emission rate without add-on controls option allows sources to take credit for HAP included in materials recycled off-site and argued that sources that recycle on-site should receive the same credit. Language in §§ 63.4541, 63.4551, and 63.4561(a) led the commenter to expect that sources with add-on control also receive credit for recycled coatings, thinners, or cleaning materials in the compliance calculations and that EPA should clarify this in the final rule. Another commenter also questioned whether sources that recycle materials off-site need to determine the HAP content of the materials received back from the recycler. The commenter noted that sources that recycle on-site do not need to determine the HAP content of the recycled material.

Response: In the compliance calculations in both the emission rate without add-on controls option and the emission rate with add-on controls option, you only need to include the HAP and solids from those materials that are actually consumed in a coating operation for which you are calculating the emission rate. If the unused portion of a material is recovered on-site and used in a second (different) coating operation for which you are separately calculating the emission rate, you do not need to include the amount of HAP and solids contained in the recovered material in the emission rate calculation for the first coating operation. However, you do need to include the HAP and solids from the recovered material in the second coating operation for which you are calculating the emission rate.

If you are calculating a single facility-wide emission rate for all coating operations, you do not need to account for materials that are recovered in one operation and used in another on-site operation. Instead, you would only need to account for materials that are actually consumed by the whole facility. For example, you would use the assumption that all HAP in the purchased coating materials are emitted on-site (either during their first use or during re-use on site). If you send HAP-containing materials off-site for recycling or disposal, such that a portion of the HAP is not emitted on-site, you can subtract this from the facility-wide emission calculation.

If you recycle materials on-site, you do not need to determine the HAP content of the materials after recycling for use in compliance calculations. Similarly, we have clarified the final rule to specify that if you send materials off-site for recycling, you do not need to determine the HAP content after recycling if you have documentation from the recycler that the material you received back is the exact same material you sent to the recycler. The purpose of the requirements is to show that the recycled materials are not inadvertently amounting to a net increase in HAP emissions from the source.

E. Methods for Determining HAP Content of Coatings

Comment: Two commenters stated that if a facility uses Material Safety Data Sheets to demonstrate compliance, a facility should be allowed to use the average of a reported range for an ingredient in determining compliance. This would avoid a facility having to determine the actual composition and would be consistent with toxics release inventory reporting, according to the commenter. A requirement to use the upper limit of a range would lead to a gross overstatement of the HAP content of materials, according to the commenter. Another commenter argued that to reduce the recordkeeping burden of calculating HAP emissions from hundreds of paints, the HAP emissions for groups of coating materials that are covered in a single Material Safety Data Sheet (such as, paints that differ only in color) should be calculated based on the average composition of the group

normalized to a total of 100 percent. The level for each HAP component should be based on the midpoint between the high and low end of the range shown on the Material Safety Data Sheets.

Response: If a range of HAP is presented, it is up to the user to determine the appropriate value that best represents the actual HAP content. The final rule does not specify whether you must use the upper limit of a range or whether you may use the average or mid-point of a range. It is important to remember, however, that in the event of any inconsistency between formulation data, such as that found on Material Safety Data Sheets, and Method 311 analyses, the Method 311 data will be used in any compliance determinations.

Comment: Several commenters stated that the final rule should allow sources or materials suppliers to use alternatives to EPA Method 24 to determine the amount of HAP that is actually emitted from reactive coatings as they are used. The proposed rule and associated test methods (specifically EPA Method 24) assumed that all HAP contained in coatings or additives are emitted. However, in reactive coatings, some of the HAP species react with other ingredients in the coating to form solids and are not emitted to the atmosphere. Therefore, the amount of HAP emitted can be significantly less than the amount of HAP present in the liquid coating.

Response: An alternative method for determining the fraction of HAP emitted from reactive coatings has been included as an appendix to the final rule. Sources using reactive coatings may use this method for demonstrating compliance based on the HAP actually emitted, rather than using Method 311, Method 24, or composition data.

F. Notification Requirements

Comment: Two commenters stated that § 63.4510 should be revised to exempt sources from the requirement to submit an initial notification if they have already submitted a CAA section 112(j) Part 1 Application to States regarding the Plastic Parts and Products Surface Coating NESHAP.

Response: Sources that have submitted a CAA section 112(j) Part 1 Application to their State permitting agency are still required to submit an initial notification as required by § 63.4510. The General Provisions specified in 40 CFR part 63, subpart A, apply to all NESHAP source categories in part 63. Under § 63.9(b) of subpart A, the owner or operator of a facility subject to a NESHAP for a given source category must submit an initial, written notification to the EPA within the applicable time period identifying the facility and the specific NESHAP subpart to which the facility is subject. In this case, the owner or operator of a facility with plastic parts and products surface coating operations subject to the NESHAP is required to prepare and submit an initial notification. Section 112(j) of the CAA requires owners and operators of major sources within a source category to apply for a title V permit should the EPA fail to promulgate emission standards for that source category by the date specified in the regulatory schedule established through section 112(e) of the CAA. The application requirements are specified under 40 CFR part 63, subpart B. Although the subpart B application requirements include some of the same information required for the subpart A initial notification (*e.g.*, facility name, address, brief description of source), the two documents serve different administrative purposes under the NESHAP program. Therefore, it is not appropriate to provide an exemption as requested by the commenter and the final rule requires all sources subject to the rule to submit an initial notification.

G. Compliance Requirements for Sources With Add-on Controls

Comment: Several commenters stated that the compliance calculations in § 63.4561(h) should not use an assumption of zero-efficiency when deviations occur. According to the commenter, this approach is burdensome and penalizes facilities for minor parameter reporting problems, such as temperature read-out malfunctions. The commenter suggested that a facility should be allowed to rebut the presumed zero-efficiency with other available data, such as fuel consumption or manual temperature recordings.

Response: If a source has manually collected parameter data indicating that an emission capture system or control device was operating normally during a parameter monitoring system malfunction, these data could be used to demonstrate compliance with the operating limits and the source would not have to assume zero-percent efficiency.

If a source has data indicating the actual performance of an add-on emission capture system and control device (*e.g.*, data from previous tests measuring percent capture at reduced flow rates or percent destruction efficiency at reduced thermal oxidizer temperatures) during a deviation from operating limits, then the source may use the actual performance in determining compliance, provided that these data were collected during performance tests meeting the applicable requirements for performance tests specified in § 63.7 of the General Provisions. The final rule has been revised to clarify that the actual performance of the add-on control system during a deviation may be used provided the performance testing criteria have been met. The final rule does not allow a source to otherwise estimate the efficiency of a capture system or control device during a deviation because this would provide no assurance of the quality of the data used in the compliance calculation.

V. Summary of Environmental, Energy, and Economic Impacts

For the purpose of assessing potential cost and emission reduction impacts, we assumed that all existing sources would convert to liquid coatings, thinners and/or other additives with lower-HAP content than presently used and would convert to lower-HAP or no-HAP cleaning materials rather than using add-on control devices, except for those already using add-on control devices. We assumed that new sources would use low-HAP coatings and non-HAP cleaning materials.

A. What Are the Air Impacts?

The 1997 nationwide baseline organic HAP emissions for the 202 major source plastic parts and products surface coating facilities of which EPA is aware are estimated to be 9,820 tpy. Implementation of the final emission limitations would reduce these emissions by approximately 80 percent to 2260 tpy. In addition, the emission limitations will not result in any significant secondary air impacts. We expect that the majority of facilities will switch to lower- or non-organic-HAP-containing materials to comply with the standards, rather than installing add-on control devices. Thus, increases in electricity consumption (which could lead to increases in emissions of nitrogen oxides, sulfur dioxide, carbon monoxide, and carbon dioxide from electric utilities) will be minimal.

B. What Are the Cost Impacts?

The total capital cost (including monitoring costs) for existing sources is estimated to be approximately $804,000. The nationwide annual cost (including monitoring, recordkeeping, and reporting costs) for existing sources is approximately $10.7 million per year. Costs for new sources are based on an estimate of six new sources being constructed within 5 years after promulgation of the final standards. The total capital cost (including monitoring costs) for new sources is $28,000. The

total annual cost (including monitoring, recordkeeping, and reporting costs) for new sources is estimated to be approximately $194,000 per year.

Cost estimates are based on information available to the Administrator and presented in the economic analysis of the final rule. The costs are calculated assuming that the majority of sources would comply by using lower-HAP-containing or non-HAP coatings and cleaning materials because such materials are generally available and becoming more widely available each year. We assumed that facilities presently equipped with add-on controls would continue to operate those control devices and capture systems and would perform the required performance tests and parameter monitoring.

During development of the proposed emission limitations, limited information was available on the costs associated with the switch to low-HAP or non-HAP coatings and cleaning materials. At proposal, we specifically requested comment on the assumptions and methodology used to determine these costs (67 FR 72295, December 4, 2002), including detailed information on the coatings and cleaning materials (and associated costs) currently being used and the coatings and cleaning materials (and associated costs) that would be used to comply with the proposed emission limitations, as well as the basis for the cost information. We received no detailed information on these cost elements in the public comments. Therefore, we have not changed the cost estimates since proposal.

C. What Are the Economic Impacts?

We prepared an economic impact analysis (EIA) to provide an estimate of the impacts the proposed rule would have on the plastic parts and products surface coating industry, consumers, and society. Economic impacts were calculated on a facility-specific basis, as well as on a market segment basis (*e.g.*, automobile manufacturing, sporting goods, electronics equipment, etc.). Economic impact indicators examined included price, output, and employment impacts. None of the changes made since proposal have resulted in changes in costs, so the EIA prepared for the proposed rule has not been updated for the final rule.

The EIA showed that the expected price increase for affected plastic parts and products would be less than 0.1 percent as a result of the final standards. Therefore, we do not expect any adverse impact to occur for those industries that produce or consume plastic parts and products such as home appliances, computer hardware producers, motor vehicle manufacturers, and recreational vehicle manufacturers.

The distribution of costs across plastic parts and products production facilities is slanted toward the lower impact levels with many facilities incurring costs related only to annually recurring monitoring, reporting, and recordkeeping activities. The EIA indicates that these regulatory costs are expected to represent about 0.25 percent of the value of coating services, which should not cause producers to cease or significantly alter their current operations. Hence, no firms or facilities are expected to be at risk of closure because of the final rule. For more information, consult Docket ID No. OAR–2002–0074 (formerly Docket No. A–99–12).

D. What Are the Non-Air Health, Environmental, and Energy Impacts?

Based on information from the industry survey responses, we found no indication that the use of lower-HAP or non-HAP content coatings, thinners and other additives, and cleaning materials at existing sources would result in any increase or decrease in non-air health, environmental, and energy impacts. There would be no change in the utility requirements associated with the use of these materials, so there would be no change in the amount of energy consumed as a result of the material conversion. Because new sources are expected to comply with the final rule through the use of lower-HAP or non-HAP coating technologies rather than add-on control devices, there would be no significant change in energy usage.

We estimate that the emission limitations will have a minimal impact on water quality because only a few facilities are expected to comply by making process modifications or by using add-on control devices that would generate wastewater. However, because many lower-HAP and non-HAP materials are waterborne, an increase in wastewater generation from cleaning activities may result. Although additional wastewater may be generated by facilities switching to waterborne coatings, the amount of wastewater generated by these facilities is not expected to increase significantly. We also estimate that the emission limitations will result in a decrease in the amount of both solid and hazardous waste from facilities, as the majority of facilities will be using lower-organic-HAP-containing materials which will result in a decrease in the amount of waste materials that will have to be disposed of as hazardous. In addition, we expect that the majority of facilities will comply by using low-HAP or non-HAP materials rather than add-on control devices. Thus, there will be little or no increase in energy usage caused by the operation of add-on controls.

VI. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), EPA must determine whether the regulatory action is "significant" and therefore subject to the Office of Management and Budget (OMB) review and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligation of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, it has been determined that the final rule is a "significant regulatory action," due to its potential impact on small businesses. The Small Business Administration (SBA) was specifically interested in how the final rule would address the potential for sources to be subject to multiple coating NESHAP. As such, this action was submitted to OMB for review. Changes made in response to OMB suggestions or recommendations will be documented in the public record.

B. Paperwork Reduction Act

The information collection requirements in the final rule have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501, *et seq.* The information collection requirements are not enforceable until OMB approves them.

The information requirements are based on notification, recordkeeping, and reporting requirements in the General Provisions (40 CFR part 63, subpart A), which are mandatory for all

operators subject to national emission standards. These recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414). All information submitted to EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to EPA policies set forth in 40 CFR part 2, subpart B.

The final rule requires maintaining records of all coatings, thinners and/or other additives, and cleaning materials data and calculations used to determine compliance. This information includes the amount (kg) used during each 12-month compliance period, mass fraction of organic HAP, density, and mass fraction of coating solids.

If an add-on control device is used, records must be kept of the capture efficiency of the capture system, destruction or removal efficiency of the add-on control device, and the monitored operating parameters. In addition, records must be kept of each calculation of the affected sourcewide emissions for each 12-month compliance period and all data, calculations, test results, and other supporting information used to determine this value.

The monitoring, recordkeeping, and reporting burden in the third year after the effective date of the promulgated rule is estimated to be 119,000 labor hours at a cost of $5.4 million for new and existing sources. This estimate includes the cost of determining and recording organic HAP content, solids content, and density, as needed, of the regulated materials, and developing a system for determining and recording the amount of each material used and performing the calculations needed for demonstrating compliance. Additionally, for affected sources with existing or newly-installed add-on control systems, the costs also include a one-time performance test and report (with repeat tests where needed) of the add-on control device, one-time purchase and installation of a CPMS, one-time submission of a SSMP with semiannual reports for any event when the procedures in the plan were not followed, semiannual compliance status reports, and recordkeeping. Total capital/startup costs associated with the monitoring requirements over the 3-year period of the information collection request (ICR) are estimated at $133,000, with operation and maintenance costs of $655 per year.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9. When this ICR is approved by OMB, the Agency will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number for the approved information collection requirements contained in the final rule.

C. Regulatory Flexibility Act

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the final rule.

For purposes of assessing the impact of the final rule on small entities, small entity is defined as: (1) A small business according to SBA size standards by NAICS code ranging from 100 to 1,000 employees or less than $5 million in annual sales; (2) a small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000; or (3) a small organization that is any not-for-profit enterprise that is independently operated and is not dominant in its field. It should be noted that companies affected by the final rule and the small business definition applied to each industry by NAICS code is that listed in the SBA size standards (13 CFR part 121).

After considering the economic impacts of the final rule on small entities, EPA has concluded that this action will not have a significant economic impact on a substantial number of small entities. We have determined that 67 of the 130 firms, or 51 percent of the total, affected by the final rule may be small entities. While the number of small firms appears to be a large proportion of the total number of affected firms, the small firms experience 21 percent of the total national compliance cost of $11 million (1997 $). Of the 67 affected small firms, three firms are estimated to have compliance costs that exceed 1 percent of their revenues. The maximum impact on any affected small entity is a compliance cost of 1.8 percent of its sales. Finally, there is a difference between the median compliance cost-to-sales estimates for the affected small and large firms (0.08 percent compared to 0.01 percent for the large firms, and 0.03 percent across all affected firms).

Although the final rule will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has worked aggressively to minimize the impact of the final rule on small entities. We solicited input from small entities during the data-gathering phase of the rulemaking. We are promulgating compliance options that give small entities flexibility in choosing the most cost-effective and least burdensome alternative for their operation. For example, a facility could purchase and use lower-or non-HAP coatings, thinners, and cleaning materials (*i.e.*, pollution prevention) that meet the final rule rather than being required to purchase add-on control systems. The lower-or non-HAP option can be demonstrated with minimum burden by using already-maintained purchase and usage records. No testing of materials would be required as the facility owner could show that their coatings meet the emission limits by providing formulation data supplied by the manufacturer.

We are also providing one option that allows compliance demonstrations to be conducted on a rolling 12-month basis, meaning that the facility would each month calculate a 12-month organic HAP emission rate for the previous 12 months to determine compliance. This will give affected small entities extra flexibility in complying with the emission limits since small entities are more likely to use lower monthly volumes and/or a limited number of materials. Furthermore, we are promulgating the minimum monitoring, recordkeeping, and reporting requirements needed for enforcement and compliance assurance.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result

in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that the final rule does not contain a Federal mandate that may result in expenditures of $100 million or more to State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. The maximum total annual cost of the final rule for any 1 year has been estimated to be about $11 million. Thus, the final rule is not subject to the requirements of sections 202 and 205 of the UMRA. In addition, EPA has determined that the final rule contains no regulatory requirements that might significantly or uniquely affect small governments because it contains no requirements that apply to such governments or impose obligations upon them. Therefore, the final rule is not subject to the requirements of Section 203 of the UMRA.

E. Executive Order 13132: Federalism

Executive Order 13132 (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" are defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

The final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. Pursuant to the terms of Executive Order 13132, it has been determined that the final rule does not have "federalism implications" because it does not meet the necessary criteria. Thus, Executive Order 13132 does not apply to the final rule.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175 (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." The final rule does not have tribal implications, as specified in Executive Order 13175. The EPA is not aware of tribal governments that own or operate plastic parts and products surface coating facilities. Thus, Executive Order 13175 does not apply to the final rule.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any rule that: (1) is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, EPA must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The final rule is not subject to Executive Order 13045 because it does not establish environmental standards based on an assessment of health or safety risks.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

The final rule is not subject to Executive Order 13211 (66 FR 28355, May 22, 2001) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Further, we have concluded that the final rule is not likely to have any adverse energy effects. The vast majority of affected sources are expected to comply with the final rule through pollution prevention rather than add on controls, and therefore, there would be, at most, a nominal impact on energy usage.

I. National Technology Transfer and Advancement Act

As noted in the proposed rule, section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113; § 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards (VCS) in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. The VCS are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by VCS bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable VCS.

The final rule involves technical standards. The EPA cites the following standards in the final rule: EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 3A, 3B, 4, 24, 25, 25A, 204, 204A–F, 311, and an alternative method to determine weight volatile matter content and weight solids content for reactive adhesives. Consistent with the NTTAA, EPA conducted searches to identify VCS in addition to these EPA methods/performance specifications. No applicable VCS were identified for EPA Methods 1A, 2A, 2D, 2F, 2G, 204, 204A through 204F, 311, and an alternative method to determine weight volatile matter content and weight solids content for reactive adhesives. The search and review results have been documented and are placed in Docket ID No. OAR–2002–0074 (formerly Docket No. A–99–12).

Six VCS: ASTM D1475–90, ASTM D2369–95, ASTM D3792–91, ASTM D4017–96a, ASTM D4457–85 (Reapproved 1991), and ASTM D5403–93 are already incorporated by reference

(IBR) in EPA Method 24. In addition, we are separately specifying the use of ASTM D1475–98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products," for measuring the density of each coating, thinner and/or additive, and cleaning material. Five VCS: ASTM D1979–91, ASTM D3432–89, ASTM D4747–87, ASTM D4827–93, and ASTM PS9–94 are IBR in EPA Method 311.

In addition to the VCS EPA uses in the final rule, the search for emissions measurement procedures identified 14 other VCS. The EPA determined that 11 of these 14 VCS identified for measuring emissions of the HAP or surrogates subject to emission standards in the final rule are impractical alternatives to EPA test methods for the purposes of the final rule. Therefore, EPA does not intend to adopt the VCS for this purpose.

Three of the 14 VCS identified in this search were not available at the time the review was conducted for the purposes of the final rule because they are under development by a VCS body: ASME/BSR MFC 13M, "Flow Measurement by Velocity Traverse," for EPA Method 2 (and possibly 1); ASME/BSR MFC 12M, "Flow in Closed Conduits Using Multiport Averaging Pitot Primary Flowmeters," for EPA Method 2; and ISO/CD 17895, "Paints and Varnishes—Determination of the Volatile Organic Compound Content of Water-based Emulsion Paints," for EPA Method 24.

The EPA requested comment on the compliance demonstration requirements in the proposed rule and specifically invited the public to identify potentially-applicable VCS. We received several comments suggesting the use of an alternative method to Method 24 for measuring emissions from reactive adhesives. This alternative method has been included in appendix A to the final rule. No other comments were received with respect to potentially applicable VCS.

Sections 63.4541, 63.4551, 63.4561, 63.4565, 63.4566, and appendix A of the final standards list the EPA testing methods and performance specifications included in the final standards. Under 40 CFR 63.7(f) and 63.8(f) of subpart A of the General Provisions, a source may apply to EPA for permission to use alternative test methods or alternative monitoring requirements in place of any of the EPA testing methods, performance specifications, or procedures.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801, *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing the final rule and other required information to the United States Senate, the United States House of Representatives, and the Comptroller General of the United States prior to publication of the final rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a major rule as defined by 5 U.S.C. 804(2). The rule will be effective April 19, 2004.

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: August 29, 2003.

Marianne Lamont Horinko,

Acting Administrator.

■ For the reasons stated in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is amended as follows:

PART 63—[AMENDED]

■ 1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

Subpart A—[AMENDED]

■ 2. Section 63.14 is amended by revising paragraph (b)(26) and adding a new paragraph (b)(34) to read as follows:

§ 63.14 Incorporations by reference.

* * * * *

(b) * * *

(26) ASTM D1475–98, Standard Test Method for Density of Liquid Coatings, Inks, and Related Products, IBR approved for §§ 63.3941(b)(4), 63.3941(c), 63.3951(c), 63.4141(b)(3), 63.4141(c), and 63.4551(c).

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(34) E145–94 (Reapproved 2001), Standard Specification for Gravity-Convection and Forced-Ventilation Ovens, IBR approved for § 63.4581, Appendix A.

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■ 3. Part 63 is amended by adding subpart PPPP to read as follows:

Subpart PPPP—National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products

Sec.

What This Subpart Covers

63.4480 What is the purpose of this subpart?
63.4481 Am I subject to this subpart?
63.4482 What parts of my plant does this subpart cover?
63.4483 When do I have to comply with this subpart?

Emission Limitations

63.4490 What emission limits must I meet?
63.4491 What are my options for meeting the emission limits?
63.4492 What operating limits must I meet?
63.4493 What work practice standards must I meet?

General Compliance Requirements

63.4500 What are my general requirements for complying with this subpart?
63.4501 What parts of the General Provisions apply to me?

Notifications, Reports, and Records

63.4510 What notifications must I submit?
63.4520 What reports must I submit?
63.4530 What records must I keep?
63.4531 In what form and for how long must I keep my records?

Compliance Requirements for the Compliant Material Option

63.4540 By what date must I conduct the initial compliance demonstration?
63.4541 How do I demonstrate initial compliance with the emission limitations?
63.4542 How do I demonstrate continuous compliance with the emission limitations?

Compliance Requirements for the Emission Rate Without Add-On Controls Option

63.4550 By what date must I conduct the initial compliance demonstration?
63.4551 How do I demonstrate initial compliance with the emission limitations?
63.4552 How do I demonstrate continuous compliance with the emission limitations?

Compliance Requirements for the Emission Rate With Add-On Controls Option

63.4560 By what date must I conduct performance tests and other initial compliance demonstrations?
63.4561 How do I demonstrate initial compliance?
63.4562 [Reserved]
63.4563 How do I demonstrate continuous compliance with the emission limitations?
63.4564 What are the general requirements for performance tests?
63.4565 How do I determine the emission capture system efficiency?
63.4566 How do I determine the add-on control device emission destruction or removal efficiency?

63.4567 How do I establish the emission capture system and add-on control device operating limits during the performance test?
63.4568 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?

Other Requirements and Information

63.4580 Who implements and enforces this subpart?
63.4581 What definitions apply to this subpart?

Tables to Subpart PPPP of Part 63

Table 1 to Subpart PPPP of Part 63—Operating Limits if Using the Emission Rate with Add-on Controls Option
Table 2 to Subpart PPPP of Part 63—Applicability of General Provisions to Subpart PPPP of Part 63
Table 3 to Subpart PPPP of Part 63—Default Organic HAP Mass Fraction for Solvents and Solvent Blends
Table 4 to Subpart PPPP of Part 63—Default Organic HAP Mass Fraction for Petroleum Solvent Groups

Appendix A to Subpart PPPP of Part 63—Determination of Weight Volatile Matter Content and Weight Solids Content of Reactive Adhesives

Subpart PPPP—National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products

What This Subpart Covers

§ 63.4480 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for plastic parts and products surface coating facilities. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§ 63.4481 Am I subject to this subpart?

(a) Plastic parts and products include, but are not limited to, plastic components of the following types of products as well as the products themselves: Motor vehicle parts and accessories for automobiles, trucks, recreational vehicles; sporting and recreational goods; toys; business machines; laboratory and medical equipment; and household and other consumer products. Except as provided in paragraph (c) of this section, the source category to which this subpart applies is the surface coating of any plastic parts or products, as described in paragraph (a)(1) of this section, and it includes the subcategories listed in paragraphs (a)(2) through (5) of this section.

(1) Surface coating is the application of coating to a substrate using, for example, spray guns or dip tanks. When application of coating to a substrate occurs, then surface coating also includes associated activities, such as surface preparation, cleaning, mixing, and storage. However, these activities do not comprise surface coating if they are not directly related to the application of the coating. Coating application with handheld, non-refillable aerosol containers, touch-up markers, marking pens, or the application of paper film or plastic film which may be pre-coated with an adhesive by the manufacturer are not coating operations for the purposes of this subpart.

(2) The general use coating subcategory includes all surface coating operations that are not automotive lamp coating operations, thermoplastic olefin (TPO) coating operations, or assembled on-road vehicle coating operations.

(3) The automotive lamp coating subcategory includes the surface coating of plastic components of the body of an exterior automotive lamp including, but not limited to, headlamps, tail lamps, turn signals, and marker (clearance) lamps; typical coatings used are reflective argent coatings and clear topcoats. This subcategory does not include the coating of interior automotive lamps, such as dome lamps and instrument panel lamps.

(4) The TPO coating subcategory includes the surface coating of TPO substrates; typical coatings used are adhesion promoters, color coatings, clear coatings and topcoats. The coating of TPO substrates on fully assembled on-road vehicles is not included in the TPO coating subcategory.

(5) The assembled on-road vehicle coating subcategory includes surface coating of fully assembled motor vehicles and trailers intended for on-road use, including, but not limited to: automobiles, light-duty trucks, heavy duty trucks, and busses that have been repaired after a collision or otherwise repainted; fleet delivery trucks; and motor homes and other recreational vehicles (including camping trailers and fifth wheels). This subcategory also includes the incidental coating of parts, such as radiator grilles, that are removed from the fully assembled on-road vehicle to facilitate concurrent coating of all parts associated with the vehicle. The assembled on-road vehicle coating subcategory does not include the surface coating of plastic parts prior to their attachment to an on-road vehicle on an original equipment manufacturer's (OEM) assembly line. The assembled on-road vehicle coating subcategory also does not include the use of adhesives, sealants, and caulks used in assembling on-road vehicles. Body fillers used to correct small surface defects and rubbing compounds used to remove surface scratches are not considered coatings subject to this subpart.

(b) You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source, as defined in § 63.4482, that uses 378 liters (100 gallons (gal)) per year, or more, of coatings that contain hazardous air pollutants (HAP) in the surface coating of plastic parts and products defined in paragraph (a) of this section; and that is a major source, is located at a major source, or is part of a major source of emissions of HAP. A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year or any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year. You do not need to include coatings that meet the definition of non-HAP coating contained in § 63.4581 in determining whether you use 378 liters (100 gallons) per year, or more, of coatings in the surface coating of plastic parts and products.

(c) This subpart does not apply to surface coating or a coating operation that meets any of the criteria of paragraphs (c)(1) through (16) of this section.

(1) A coating operation conducted at a facility where the facility uses only coatings, thinners and other additives, and cleaning materials that contain no organic HAP, as determined according to § 63.3941(a).

(2) Surface coating operations that occur at research or laboratory facilities, or is part of janitorial, building, and facility maintenance operations, or that occur at hobby shops that are operated for noncommercial purposes.

(3) The surface coating of plastic parts and products performed on-site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State) or the National Aeronautics and Space Administration, or the surface coating of military munitions manufactured by or for the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State).

(4) Surface coating where plastic is extruded onto plastic parts or products to form a coating.

(5) Surface coating of magnet wire.

(6) In-mold coating operations or gel coating operations in the manufacture of reinforced plastic composite parts that

meet the applicability criteria for reinforced plastics composites production (subpart WWWW of this part).

(7) Surface coating of plastic components of wood furniture that meet the applicability criteria for wood furniture manufacturing (subpart JJ of this part).

(8) Surface coating of plastic components of large appliances that meet the applicability criteria for large appliance surface coating (subpart NNNN of this part).

(9) Surface coating of plastic components of metal furniture that meet the applicability criteria for metal furniture surface coating (subpart RRRR of this part).

(10) Surface coating of plastic components of wood building products that meet the applicability criteria for wood building products surface coating (subpart QQQQ of this part).

(11) Surface coating of plastic components of aerospace vehicles that meet the applicability criteria for aerospace manufacturing and rework (40 CFR part 63, subpart GG).

(12) Surface coating of plastic parts intended for use in an aerospace vehicle or component using specialty coatings as defined in appendix A to subpart GG of this part.

(13) Surface coating of plastic components of ships that meet the applicability criteria for shipbuilding and ship repair (subpart II of this part).

(14) Surface coating of plastic using a web coating process that meets the applicability criteria for paper and other web coating (subpart JJJJ of this part).

(15) Surface coating of fiberglass boats or parts of fiberglass boats (including, but not limited to, the use of assembly adhesives) where the facility meets the applicability criteria for boat manufacturing (subpart VVVV of this part), except where the surface coating of the boat is a post-mold coating operation performed on personal watercraft or parts of personal watercraft. This subpart does apply to post-mold coating operations performed on personal watercraft and parts of personal watercraft.

(16) [Reserved]

(d) [Reserved]

(e) If you own or operate an affected source that meets the applicability criteria of this subpart and at the same facility you also perform surface coating that meets the applicability criteria of any other final surface coating NESHAP in this part, you may choose to comply as specified in paragraph (e)(1), (2), or (3) of this section.

(1) You may have each surface coating operation that meets the applicability criteria of a separate NESHAP comply with that NESHAP separately.

(2) You may comply with the emission limitation representing the predominant surface coating activity at your facility, as determined according to paragraphs (e)(2)(i) and (ii) of this section. However, you may not establish assembled on-road vehicle and automotive lamp coating operations as the predominant activity.

(i) If a surface coating operation accounts for 90 percent or more of the surface coating activity at your facility (that is, the predominant activity), then compliance with the emission limitations of the predominant activity for all surface coating operations constitutes compliance with these and other applicable surface coating NESHAP. In determining predominant activity, you must include coating activities that meet the applicability criteria of other surface coating NESHAP and constitute more than 1 percent of total coating activities at your facility. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than 1 percent of coating activities need not be included in the determination of predominant activity but must be included in the compliance calculation.

(ii) You must use kilogram (kg) (pound (lb)) of solids used as a measure of relative surface coating activity over a representative period of operation. You may estimate the relative mass of coating solids used from parameters other than coating consumption and mass solids content (*e.g.*, design specifications for the parts or products coated and the number of items produced). The determination of predominant activity must accurately reflect current and projected coating operations and must be verifiable through appropriate documentation. The use of parameters other than coating consumption and mass solids content must be approved by the Administrator. You may use data for any reasonable time period of at least 1 year in determining the relative amount of coating activity, as long as they represent the way the source will continue to operate in the future and are approved by the Administrator. You must determine the predominant activity at your facility and submit the results of that determination with the initial notification required by § 63.4510(b). You must also determine predominant activity annually and include the determination in the next semi-annual compliance report required by § 63.4520(a).

(3) You may comply with a facility-specific emission limit calculated from the relative amount of coating activity that is subject to each emission limit. If you elect to comply using the facility-specific emission limit alternative, then compliance with the facility-specific emission limit and the emission limitations in this subpart for all surface coating operations constitutes compliance with this and other applicable surface coating NESHAP. The procedures for calculating the facility-specific emission limit are specified in § 63.4490. In calculating a facility-specific emission limit, you must include coating activities that meet the applicability criteria of other surface coating NESHAP and constitute more than 1 percent of total coating activities at your facility. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than 1 percent of total coating activities need not be included in the calculation of the facility-specific emission limit but must be included in the compliance calculations.

§ 63.4482 What parts of my plant does this subpart cover?

(a) This subpart applies to each new, reconstructed, and existing affected source within each of the four subcategories listed in § 63.4481(a).

(b) The affected source is the collection of all of the items listed in paragraphs (b)(1) through (4) of this section that are used for surface coating of plastic parts and products within each subcategory.

(1) All coating operations as defined in § 63.4581;

(2) All storage containers and mixing vessels in which coatings, thinners and/or other additives, and cleaning materials are stored or mixed;

(3) All manual and automated equipment and containers used for conveying coatings, thinners and/or other additives, and cleaning materials; and

(4) All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.

(c) An affected source is a new source if it meets the criteria in paragraph (c)(1) of this section and the criteria in either paragraph (c)(2) or (3) of this section.

(1) You commenced the construction of the source after December 4, 2002 by installing new coating equipment.

(2) The new coating equipment is used to coat plastic parts and products at a source where no plastic parts surface coating was previously performed.

(3) The new coating equipment is used to perform plastic parts and

products coating in a subcategory that was not previously performed.

(d) An affected source is reconstructed if you meet the criteria as defined in § 63.2.

(e) An affected source is existing if it is not new or reconstructed.

§ 63.4483 When do I have to comply with this subpart?

The date by which you must comply with this subpart is called the compliance date. The compliance date for each type of affected source is specified in paragraphs (a) through (c) of this section. The compliance date begins the initial compliance period during which you conduct the initial compliance demonstration described in §§ 63.4540, 63.4550, and 63.4560.

(a) For a new or reconstructed affected source, the compliance date is the applicable date in paragraph (a)(1) or (2) of this section:

(1) If the initial startup of your new or reconstructed affected source is before April 19, 2004, the compliance date is April 19, 2004.

(2) If the initial startup of your new or reconstructed affected source occurs after April 19, 2004, the compliance date is the date of initial startup of your affected source.

(b) For an existing affected source, the compliance date is the date 3 years after April 19, 2004.

(c) For an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP emissions, the compliance date is specified in paragraphs (c)(1) and (2) of this section.

(1) For any portion of the source that becomes a new or reconstructed affected source subject to this subpart, the compliance date is the date of initial startup of the affected source or April 19, 2004, whichever is later.

(2) For any portion of the source that becomes an existing affected source subject to this subpart, the compliance date is the date 1 year after the area source becomes a major source or 3 years after April 19, 2004, whichever is later.

(d) You must meet the notification requirements in § 63.4510 according to the dates specified in that section and in subpart A of this part. Some of the notifications must be submitted before the compliance dates described in paragraphs (a) through (c) of this section.

Emission Limitations

§ 63.4490 What emission limits must I meet?

(a) For a new or reconstructed affected source, you must limit organic HAP emissions to the atmosphere from the affected source to the applicable limit specified in paragraphs (a)(1) through (4) of this section, except as specified in paragraph (c) of this section, determined according to the requirements in § 63.4541, § 63.4551, or § 63.4561.

(1) For each new general use coating affected source, limit organic HAP emissions to no more than 0.16 kg (0.16 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(2) For each new automotive lamp coating affected source, limit organic HAP emissions to no more than 0.26 kg (0.26 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(3) For each new TPO coating affected source, limit organic HAP emissions to no more than 0.22 kg (0.22 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(4) For each new assembled on-road vehicle coating affected source, limit organic HAP emissions to no more than 1.34 kg (1.34 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(b) For an existing affected source, you must limit organic HAP emissions to the atmosphere from the affected source to the applicable limit specified in paragraphs (b)(1) through (4) of this section, except as specified in paragraph (c) of this section, determined according to the requirements in § 63.4541, § 63.4551, or § 63.4561.

(1) For each existing general use coating affected source, limit organic HAP emissions to no more than 0.16 kg (0.16 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(2) For each existing automotive lamp coating affected source, limit organic HAP emissions to no more than 0.45 kg (0.45 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(3) For each existing TPO coating affected source, limit organic HAP emissions to no more than 0.26 kg (0.26 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(4) For each existing assembled on-road vehicle coating affected source, limit organic HAP emissions to no more than 1.34 kg (1.34 lb) organic HAP emitted per kg (lb) coating solids used during each 12-month compliance period.

(c) If your facility's surface coating operations meet the applicability criteria of more than one of the subcategory emission limits specified in paragraphs (a) or (b) of this section, you may comply separately with each subcategory emission limit or comply using one of the alternatives in paragraph (c)(1) or (2) of this section.

(1) If the general use or TPO surface coating operations subject to only one of the emission limits specified in paragraphs (a)(1), (a)(3), (b)(1), or (b)(3) of this section account for 90 percent or more of the surface coating activity at your facility (*i.e.*, it is the predominant activity at your facility), then compliance with that emission limitation for all surface coating operations constitutes compliance with the other applicable emission limitations. You must use kg (lb) of solids used as a measure of relative surface coating activity over a representative period of operation. You may estimate the relative mass of coating solids used from parameters other than coating consumption and mass solids content (*e.g.*, design specifications for the parts or products coated and the number of items produced). The determination of predominant activity must accurately reflect current and projected coating operations and must be verifiable through appropriate documentation. The use of parameters other than coating consumption and mass solids content must be approved by the Administrator. You may use data for any reasonable time period of at least 1 year in determining the relative amount of coating activity, as long as they represent the way the source will continue to operate in the future and are approved by the Administrator. You must determine the predominant activity at your facility and submit the results of that determination with the initial notification required by § 63.4510(b). Additionally, you must determine the facility's predominant activity annually and include the determination in the next semi-annual compliance report required by § 63.4520(a).

(2) You may calculate and comply with a facility-specific emission limit as described in paragraphs (c)(2)(i) through (iii) of this section. If you elect to comply using the facility-specific emission limit alternative, then compliance with the facility-specific emission limit and the emission limitations in this subpart for all surface coating operations constitutes compliance with this and other applicable surface coating NESHAP. In calculating a facility-specific emission limit, you must include coating activities that meet the applicability criteria of the other subcategories and constitute more than 1 percent of total

coating activities. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than 1 percent of coating activities need not be included in the determination of predominant activity but must be included in the compliance calculation.

(i) You are required to calculate the facility-specific emission limit for your facility when you submit the notification of compliance status required in § 63.4510(c), and on a monthly basis afterward using the coating data for the relevant 12-month compliance period.

(ii) Use Equation 1 of this section to calculate the facility-specific emission limit for your surface coating operations for each 12-month compliance period.

$$\text{Facility} - \text{Specific Emission Limit} = \frac{\sum_{i=1}^{n}(\text{Limit}_i)(\text{Solids}_i)}{\sum_{i=1}^{n}(\text{Solids}_i)} \quad \text{(Eq. 1)}$$

Where:

Facility-specific emission limit = Facility-specific emission limit for each 12-month compliance period, kg (lb) organic HAP per kg (lb) coating solids used.

Limit_i = The new source or existing source emission limit applicable to coating operation, i, included in the facility-specific emission limit, converted to kg (lb) organic HAP per kg (lb) coating solids used, if the emission limit is not already in those units. All emission limits included in the facility-specific emission limit must be in the same units.

Solids_i = The kg (lb) of solids used in coating operation, i, in the 12-month compliance period that is subject to emission limit, i. You may estimate the mass of coating solids used from parameters other than coating consumption and mass solids content (*e.g.*, design specifications for the parts or products coated and the number of items produced). The use of parameters other than coating consumption and mass solids content must be approved by the Administrator.

n = The number of different coating operations included in the facility-specific emission limit.

(iii) If you need to convert an emission limit in another surface coating NESHAP from kg (lb) organic HAP per liter (gallon) coating solids used to kg (lb) organic HAP per kg (lb) coating solids used, you must use the default solids density of 1.50 kg solids per liter coating solids (12.5 lb solids per gal solids).

§ 63.4491 What are my options for meeting the emission limits?

You must include all coatings (as defined in § 63.4581), thinners and/or other additives, and cleaning materials used in the affected source when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in § 63.4490. To make this determination, you must use at least one of the three compliance options listed in paragraphs (a) through (c) of this section. You may apply any of the compliance options to an individual coating operation, or to multiple coating operations as a group, or to the entire affected source. You may use different compliance options for different coating operations, or at different times on the same coating operation. You may employ different compliance options when different coatings are applied to the same part, or when the same coating is applied to different parts. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document this switch as required by § 63.4530(c), and you must report it in the next semiannual compliance report required in § 63.4520.

(a) *Compliant material option.* Demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit in § 63.4490, and that each thinner and/or other additive, and cleaning material used contains no organic HAP. You must meet all the requirements of §§ 63.4540, 63.4541, and 63.4542 to demonstrate compliance with the applicable emission limit using this option.

(b) *Emission rate without add-on controls option.* Demonstrate that, based on the coatings, thinners and/or other additives, and cleaning materials used in the coating operation(s), the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in § 63.4490, calculated as a rolling 12-month emission rate and determined on a monthly basis. You must meet all the requirements of §§ 63.4550, 63.4551, and 63.4552 to demonstrate compliance with the emission limit using this option.

(c) *Emission rate with add-on controls option.* Demonstrate that, based on the coatings, thinners and/or other additives, and cleaning materials used in the coating operation(s), and the emissions reductions achieved by emission capture systems and add-on controls, the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in § 63.4490, calculated as a rolling 12-month emission rate and determined on a monthly basis. If you use this compliance option, you must also demonstrate that all emission capture systems and add-on control devices for the coating operation(s) meet the operating limits required in § 63.4492, except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.4561(j), and that you meet the work practice standards required in § 63.4493. You must meet all the requirements of §§ 63.4560 through 63.4568 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

§ 63.4492 What operating limits must I meet?

(a) For any coating operation(s) on which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any operating limits.

(b) For any controlled coating operation(s) on which you use the emission rate with add-on controls option, except those for which you use a solvent recovery system and conduct a liquid-liquid material balance according to § 63.4561(j), you must meet the operating limits specified in Table 1 to this subpart. These operating limits apply to the emission capture and control systems on the coating

operation(s) for which you use this option, and you must establish the operating limits during the performance test according to the requirements in § 63.4567. You must meet the operating limits at all times after you establish them.

(c) If you use an add-on control device other than those listed in Table 1 to this subpart, or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of alternative monitoring under § 63.8(f).

§ 63.4493 What work practice standards must I meet?

(a) For any coating operation(s) on which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any work practice standards.

(b) If you use the emission rate with add-on controls option, you must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners and/or other additives, and cleaning materials used in, and waste materials generated by the controlled coating operation(s) for which you use this option; or you must meet an alternative standard as provided in paragraph (c) of this section. The plan must specify practices and procedures to ensure that, at a minimum, the elements specified in paragraphs (b)(1) through (5) of this section are implemented.

(1) All organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be stored in closed containers.

(2) Spills of organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be minimized.

(3) Organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.

(4) Mixing vessels which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents.

(5) Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment.

(c) As provided in § 63.6(g), we, the U.S. Environmental Protection Agency, may choose to grant you permission to use an alternative to the work practice standards in this section.

General Compliance Requirements

§ 63.4500 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations in this subpart as specified in paragraphs (a)(1) and (2) of this section.

(1) Any coating operation(s) for which you use the compliant material option or the emission rate without add-on controls option, as specified in § 63.4491(a) and (b), must be in compliance with the applicable emission limit in § 63.4490 at all times.

(2) Any coating operation(s) for which you use the emission rate with add-on controls option, as specified in § 63.4491(c), must be in compliance with the emission limitations as specified in paragraphs (a)(2)(i) through (iii) of this section.

(i) The coating operation(s) must be in compliance with the applicable emission limit in § 63.4490 at all times except during periods of startup, shutdown, and malfunction.

(ii) The coating operation(s) must be in compliance with the operating limits for emission capture systems and add-on control devices required by § 63.4492 at all times except during periods of startup, shutdown, and malfunction, and except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.4561(j).

(iii) The coating operation(s) must be in compliance with the work practice standards in § 63.4493 at all times.

(b) You must always operate and maintain your affected source, including all air pollution control and monitoring equipment you use for purposes of complying with this subpart, according to the provisions in § 63.6(e)(1)(i).

(c) If your affected source uses an emission capture system and add-on control device, you must develop and implement a written startup, shutdown, and malfunction plan according to the provisions in § 63.6(e)(3). The plan must address the startup, shutdown, and corrective actions in the event of a malfunction of the emission capture system or the add-on control device. The plan must also address any coating operation equipment that may cause increased emissions or that would affect capture efficiency if the process equipment malfunctions, such as conveyors that move parts among enclosures.

§ 63.4501 What parts of the General Provisions apply to me?

Table 2 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

Notifications, Reports, and Records

§ 63.4510 What notifications must I submit?

(a) *General.* You must submit the notifications in §§ 63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (e) and (h) that apply to you by the dates specified in those sections, except as provided in paragraphs (b) and (c) of this section.

(b) *Initial notification.* You must submit the initial notification required by § 63.9(b) for a new or reconstructed affected source no later than 120 days after initial startup or 120 days after April 19, 2004, whichever is later. For an existing affected source, you must submit the initial notification no later than 1 year after April 19, 2004. If you are using compliance with the Automobiles and Light-Duty Trucks NESHAP (subpart IIII of this part) under § 63.4881(d) to constitute compliance with this subpart for your plastic part coating operations, then you must include a statement to this effect in your initial notification and no other notifications are required under this subpart. If you are complying with another NESHAP that constitutes the predominant activity at your facility under § 63.4481(e)(2) to constitute compliance with this subpart for your plastic coating operations, then you must include a statement to this effect in your initial notification and no other notifications are required under this subpart.

(c) *Notification of compliance status.* You must submit the notification of compliance status required by § 63.9(h) no later than 30 calendar days following the end of the initial compliance period described in § 63.4540, § 63.4550, or § 63.4560 that applies to your affected source. The notification of compliance status must contain the information specified in paragraphs (c)(1) through (11) of this section and in § 63.9(h).

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of the report and beginning and ending dates of the reporting period. The reporting period is the initial compliance period described in § 63.4540, § 63.4550, or § 63.4560 that applies to your affected source.

(4) Identification of the compliance option or options specified in § 63.4491 that you used on each coating operation in the affected source during the initial compliance period.

(5) Statement of whether or not the affected source achieved the emission

limitations for the initial compliance period.

(6) If you had a deviation, include the information in paragraphs (c)(6)(i) and (ii) of this section.

(i) A description and statement of the cause of the deviation.

(ii) If you failed to meet the applicable emission limit in § 63.4490, include all the calculations you used to determine the kg (lb) organic HAP emitted per kg (lb) coating solids used. You do not need to submit information provided by the materials' suppliers or manufacturers, or test reports.

(7) For each of the data items listed in paragraphs (c)(7)(i) through (iv) of this section that is required by the compliance option(s) you used to demonstrate compliance with the emission limit, include an example of how you determined the value, including calculations and supporting data. Supporting data may include a copy of the information provided by the supplier or manufacturer of the example coating or material, or a summary of the results of testing conducted according to § 63.4541(a), (b), or (c). You do not need to submit copies of any test reports.

(i) Mass fraction of organic HAP for one coating, for one thinner and/or other additive, and for one cleaning material.

(ii) Mass fraction of coating solids for one coating.

(iii) Density for one coating, one thinner and/or other additive, and one cleaning material, except that if you use the compliant material option, only the example coating density is required.

(iv) The amount of waste materials and the mass of organic HAP contained in the waste materials for which you are claiming an allowance in Equation 1 of § 63.4551.

(8) The calculation of kg (lb) organic HAP emitted per kg (lb) coating solids used for the compliance option(s) you used, as specified in paragraphs (c)(8)(i) through (iii) of this section.

(i) For the compliant material option, provide an example calculation of the organic HAP content for one coating, using Equation 1 of § 63.4541.

(ii) For the emission rate without add-on controls option, provide the calculation of the total mass of organic HAP emissions for each month; the calculation of the total mass of coating solids used each month; and the calculation of the 12-month organic HAP emission rate using Equations 1 and 1A through 1C, 2, and 3, respectively, of § 63.4551.

(iii) For the emission rate with add-on controls option, provide the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month, using Equations 1 and 1A through 1C of § 63.4551; the calculation of the total mass of coating solids used each month using Equation 2 of § 63.4551; the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of § 63.4561 and Equations 2, 3, and 3A through 3C of § 63.4561, as applicable; the calculation of the total mass of organic HAP emissions each month using Equation 4 of § 63.4561; and the calculation of the 12-month organic HAP emission rate using Equation 5 of § 63.4561.

(9) For the emission rate with add-on controls option, you must include the information specified in paragraphs (c)(9)(i) through (iv) of this section, except that the requirements in paragraphs (c)(9)(i) through (iii) of this section do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.4561(j).

(i) For each emission capture system, a summary of the data and copies of the calculations supporting the determination that the emission capture system is a permanent total enclosure (PTE) or a measurement of the emission capture system efficiency. Include a description of the protocol followed for measuring capture efficiency, summaries of any capture efficiency tests conducted, and any calculations supporting the capture efficiency determination. If you use the data quality objective (DQO) or lower confidence limit (LCL) approach, you must also include the statistical calculations to show you meet the DQO or LCL criteria in appendix A to subpart KK of this part. You do not need to submit complete test reports.

(ii) A summary of the results of each add-on control device performance test. You do not need to submit complete test reports.

(iii) A list of each emission capture system's and add-on control device's operating limits and a summary of the data used to calculate those limits.

(iv) A statement of whether or not you developed and implemented the work practice plan required by § 63.4493.

(10) If you are complying with a single emission limit representing the predominant activity under § 63.4490(c)(1), include the calculations and supporting information used to demonstrate that this emission limit represents the predominant activity as specified in § 63.4490(c)(1).

(11) If you are complying with a facility-specific emission limit under § 63.4490(c)(2), include the calculation of the facility-specific emission limit and any supporting information as specified in § 63.4490(c)(2).

§ 63.4520 What reports must I submit?

(a) *Semiannual compliance reports.* You must submit semiannual compliance reports for each affected source according to the requirements of paragraphs (a)(1) through (7) of this section. The semiannual compliance reporting requirements may be satisfied by reports required under other parts of the Clean Air Act (CAA), as specified in paragraph (a)(2) of this section.

(1) *Dates.* Unless the Administrator has approved or agreed to a different schedule for submission of reports under § 63.10(a), you must prepare and submit each semiannual compliance report according to the dates specified in paragraphs (a)(1)(i) through (iv) of this section. Note that the information reported for each of the months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(i) The first semiannual compliance report must cover the first semiannual reporting period which begins the day after the end of the initial compliance period described in § 63.4540, § 63.4550, or § 63.4560 that applies to your affected source and ends on June 30 or December 31, whichever date is the first date following the end of the initial compliance period.

(ii) Each subsequent semiannual compliance report must cover the subsequent semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(iii) Each semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(iv) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the date specified in paragraph (a)(1)(iii) of this section.

(2) *Inclusion with title V report.* Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or

40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a semiannual compliance report pursuant to this section along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the semiannual compliance report includes all required information concerning deviations from any emission limitation in this subpart, its submission will be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a semiannual compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permitting authority.

(3) *General requirements.* The semiannual compliance report must contain the information specified in paragraphs (a)(3)(i) through (vii) of this section, and the information specified in paragraphs (a)(4) through (7) and (c)(1) of this section that is applicable to your affected source.

(i) Company name and address.

(ii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(iii) Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31. Note that the information reported for each of the 6 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(iv) Identification of the compliance option or options specified in § 63.4491 that you used on each coating operation during the reporting period. If you switched between compliance options during the reporting period, you must report the beginning and ending dates for each option you used.

(v) If you used the emission rate without add-on controls or the emission rate with add-on controls compliance option (§ 63.4491(b) or (c)), the calculation results for each rolling 12-month organic HAP emission rate during the 6-month reporting period.

(vi) If you used the predominant activity alternative (§ 63.4490(c)(1)), include the annual determination of predominant activity if it was not included in the previous semi-annual compliance report.

(vii) If you used the facility-specific emission limit alternative (§ 63.4490(c)(2)), include the calculation of the facility-specific emission limit for each 12-month compliance period during the 6-month reporting period.

(4) *No deviations.* If there were no deviations from the emission limitations in §§ 63.4490, 63.4492, and 63.4493 that apply to you, the semiannual compliance report must include a statement that there were no deviations from the emission limitations during the reporting period. If you used the emission rate with add-on controls option and there were no periods during which the continuous parameter monitoring systems (CPMS) were out-of-control as specified in § 63.8(c)(7), the semiannual compliance report must include a statement that there were no periods during which the CPMS were out-of-control during the reporting period.

(5) *Deviations: Compliant material option.* If you used the compliant material option and there was a deviation from the applicable organic HAP content requirements in § 63.4490, the semiannual compliance report must contain the information in paragraphs (a)(5)(i) through (iv) of this section.

(i) Identification of each coating used that deviated from the applicable emission limit, and each thinner and/or other additive, and cleaning material used that contained organic HAP, and the dates and time periods each was used.

(ii) The calculation of the organic HAP content (using Equation 1 of § 63.4541) for each coating identified in paragraph (a)(5)(i) of this section. You do not need to submit background data supporting this calculation (*e.g.*, information provided by coating suppliers or manufacturers, or test reports).

(iii) The determination of mass fraction of organic HAP for each thinner and/or other additive, and cleaning material identified in paragraph (a)(5)(i) of this section. You do not need to submit background data supporting this calculation (*e.g.*, information provided by material suppliers or manufacturers, or test reports).

(iv) A statement of the cause of each deviation.

(6) *Deviations: Emission rate without add-on controls option.* If you used the emission rate without add-on controls option and there was a deviation from the applicable emission limit in § 63.4490, the semiannual compliance report must contain the information in paragraphs (a)(6)(i) through (iii) of this section.

(i) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in § 63.4490.

(ii) The calculations used to determine the 12-month organic HAP emission rate for the compliance period in which the deviation occurred. You must submit the calculations for Equations 1, 1A through 1C, 2, and 3 of § 63.4551; and if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.4551(e)(4). You do not need to submit background data supporting these calculations (*e.g.*, information provided by materials suppliers or manufacturers, or test reports).

(iii) A statement of the cause of each deviation.

(7) *Deviations: Emission rate with add-on controls option.* If you used the emission rate with add-on controls option and there was a deviation from an emission limitation (including any periods when emissions bypassed the add-on control device and were diverted to the atmosphere), the semiannual compliance report must contain the information in paragraphs (a)(7)(i) through (xiv) of this section. This includes periods of startup, shutdown, and malfunction during which deviations occurred.

(i) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in § 63.4490.

(ii) The calculations used to determine the 12-month organic HAP emission rate for each compliance period in which a deviation occurred. You must provide the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1 and 1A through 1C of § 63.4551; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.4551(e)(4); the calculation of the total mass of coating solids used each month using Equation 2 of § 63.4551; the calculation of the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of § 63.4561, and Equations 2, 3, and 3A through 3C of § 63.4561, as applicable; the calculation of the total mass of organic HAP emissions each month using Equation 4 of § 63.4561; and the calculation of the 12-month organic HAP emission rate using Equation 5 of § 63.4561. You do not need to submit the background data supporting these calculations (*e.g.*, information provided by materials suppliers or manufacturers, or test reports).

(iii) The date and time that each malfunction started and stopped.

(iv) A brief description of the CPMS.

(v) The date of the latest CPMS certification or audit.

(vi) The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.

(vii) The date, time, and duration that each CPMS was out-of-control, including the information in § 63.8(c)(8).

(viii) The date and time period of each deviation from an operating limit in Table 1 to this subpart; date and time period of any bypass of the add-on control device; and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(ix) A summary of the total duration of each deviation from an operating limit in Table 1 to this subpart and each bypass of the add-on control device during the semiannual reporting period, and the total duration as a percent of the total source operating time during that semiannual reporting period.

(x) A breakdown of the total duration of the deviations from the operating limits in Table 1 of this subpart and bypasses of the add-on control device during the semiannual reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(xi) A summary of the total duration of CPMS downtime during the semiannual reporting period and the total duration of CPMS downtime as a percent of the total source operating time during that semiannual reporting period.

(xii) A description of any changes in the CPMS, coating operation, emission capture system, or add-on control device since the last semiannual reporting period.

(xiii) For each deviation from the work practice standards, a description of the deviation, the date and time period of the deviation, and the actions you took to correct the deviation.

(xiv) A statement of the cause of each deviation.

(b) *Performance test reports.* If you use the emission rate with add-on controls option, you must submit reports of performance test results for emission capture systems and add-on control devices no later than 60 days after completing the tests as specified in § 63.10(d)(2).

(c) *Startup, shutdown, malfunction reports.* If you used the emission rate with add-on controls option and you had a startup, shutdown, or malfunction during the semiannual reporting period, you must submit the reports specified in paragraphs (c)(1) and (2) of this section.

(1) If your actions were consistent with your startup, shutdown, and malfunction plan, you must include the information specified in § 63.10(d) in the semiannual compliance report required by paragraph (a) of this section.

(2) If your actions were not consistent with your startup, shutdown, and malfunction plan, you must submit an immediate startup, shutdown, and malfunction report as described in paragraphs (c)(2)(i) and (ii) of this section.

(i) You must describe the actions taken during the event in a report delivered by facsimile, telephone, or other means to the Administrator within 2 working days after starting actions that are inconsistent with the plan.

(ii) You must submit a letter to the Administrator within 7 working days after the end of the event, unless you have made alternative arrangements with the Administrator as specified in § 63.10(d)(5)(ii). The letter must contain the information specified in § 63.10(d)(5)(ii).

§ 63.4530 What records must I keep?

You must collect and keep records of the data and information specified in this section. Failure to collect and keep these records is a deviation from the applicable standard.

(a) A copy of each notification and report that you submitted to comply with this subpart, and the documentation supporting each notification and report. If you are using the predominant activity alternative under § 63.4490(c), you must keep records of the data and calculations used to determine the predominant activity. If you are using the facility-specific emission limit alternative under § 63.4490(c), you must keep records of the data used to calculate the facility-specific emission limit for the initial compliance demonstration. You must also keep records of any data used in each annual predominant activity determination and in the calculation of the facility-specific emission limit for each 12-month compliance period included in the semi-annual compliance reports.

(b) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP and density for each coating, thinner and/or other additive, and cleaning material, and the mass fraction of coating solids for each coating. If you conducted testing to determine mass fraction of organic HAP, density, or mass fraction of coating solids, you must keep a copy of the complete test report. If you use information provided to you by the manufacturer or supplier of the material that was based on testing, you must keep the summary sheet of results provided to you by the manufacturer or supplier. You are not required to obtain the test report or other supporting documentation from the manufacturer or supplier.

(c) For each compliance period, the records specified in paragraphs (c)(1) through (4) of this section.

(1) A record of the coating operations on which you used each compliance option and the time periods (beginning and ending dates and times) for each option you used.

(2) For the compliant material option, a record of the calculation of the organic HAP content for each coating, using Equation 1 of § 63.4541.

(3) For the emission rate without add-on controls option, a record of the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1, 1A through 1C, and 2 of § 63.4551 and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.4551(e)(4); the calculation of the total mass of coating solids used each month using Equation 2 of § 63.4551; and the calculation of each 12-month organic HAP emission rate using Equation 3 of § 63.4551.

(4) For the emission rate with add-on controls option, records of the calculations specified in paragraphs (c)(4)(i) through (v) of this section.

(i) The calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1 and 1A through 1C of § 63.4551; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.4551(e)(4);

(ii) The calculation of the total mass of coating solids used each month using Equation 2 of § 63.4551;

(iii) The calculation of the mass of organic HAP emission reduction by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of § 63.4561 and Equations 2, 3, and 3A through 3C of § 63.4561, as applicable;

(iv) The calculation of each month's organic HAP emission rate using Equation 4 of § 63.4561; and

(v) The calculation of each 12-month organic HAP emission rate using Equation 5 of § 63.4561.

(d) A record of the name and mass of each coating, thinner and/or other additive, and cleaning material used

during each compliance period. If you are using the compliant material option for all coatings at the source, you may maintain purchase records for each material used rather than a record of the mass used.

(e) A record of the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each compliance period.

(f) A record of the mass fraction of coating solids for each coating used during each compliance period.

(g) If you use an allowance in Equation 1 of § 63.4551 for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage, and disposal facility (TSDF) according to § 63.4551(e)(4), you must keep records of the information specified in paragraphs (g)(1) through (3) of this section.

(1) The name and address of each TSDF to which you sent waste materials for which you use an allowance in Equation 1 of § 63.4551, a statement of which subparts under 40 CFR parts 262, 264, 265, and 266 apply to the facility; and the date of each shipment.

(2) Identification of the coating operations producing waste materials included in each shipment and the month or months in which you used the allowance for these materials in Equation 1 of § 63.4551.

(3) The methodology used in accordance with § 63.4551(e)(4) to determine the total amount of waste materials sent to or the amount collected, stored, and designated for transport to a TSDF each month; and the methodology to determine the mass of organic HAP contained in these waste materials. This must include the sources for all data used in the determination, methods used to generate the data, frequency of testing or monitoring, and supporting calculations and documentation, including the waste manifest for each shipment.

(h) You must keep records of the date, time, and duration of each deviation.

(i) If you use the emission rate with add-on controls option, you must keep the records specified in paragraphs (i)(1) through (8) of this section.

(1) For each deviation, a record of whether the deviation occurred during a period of startup, shutdown, or malfunction.

(2) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) The records required to show continuous compliance with each operating limit specified in Table 1 to this subpart that applies to you.

(4) For each capture system that is a PTE, the data and documentation you used to support a determination that the capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and has a capture efficiency of 100 percent, as specified in § 63.4565(a).

(5) For each capture system that is not a PTE, the data and documentation you used to determine capture efficiency according to the requirements specified in §§ 63.4564 and 63.4565(b) through (e), including the records specified in paragraphs (i)(5)(i) through (iii) of this section that apply to you.

(i) *Records for a liquid-to-uncaptured gas protocol using a temporary total enclosure or building enclosure.* Records of the mass of total volatile hydrocarbon (TVH) as measured by Method 204A or 204F of appendix M to 40 CFR part 51 for each material used in the coating operation, and the total TVH for all materials used during each capture efficiency test run, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run, as measured by Method 204D or 204E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(ii) *Records for a gas-to-gas protocol using a temporary total enclosure or a building enclosure.* Records of the mass of TVH emissions captured by the emission capture system as measured by Method 204B or 204C of appendix M to 40 CFR part 51 at the inlet to the add-on control device, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run as measured by Method 204D or 204E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(iii) *Records for an alternative protocol.* Records needed to document a capture efficiency determination using an alternative method or protocol as specified in § 63.4565(e), if applicable.

(6) The records specified in paragraphs (i)(6)(i) and (ii) of this section for each add-on control device organic HAP destruction or removal efficiency determination as specified in § 63.4566.

(i) Records of each add-on control device performance test conducted according to §§ 63.4564 and 63.4566.

(ii) Records of the coating operation conditions during the add-on control device performance test showing that the performance test was conducted under representative operating conditions.

(7) Records of the data and calculations you used to establish the emission capture and add-on control device operating limits as specified in § 63.4567 and to document compliance with the operating limits as specified in Table 1 to this subpart.

(8) A record of the work practice plan required by § 63.4493 and documentation that you are implementing the plan on a continuous basis.

§ 63.4531 In what form and for how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database.

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to § 63.10(b)(1). You may keep the records off-site for the remaining 3 years.

Compliance Requirements for the Compliant Material Option

§ 63.4540 By what date must I conduct the initial compliance demonstration?

You must complete the initial compliance demonstration for the initial compliance period according to the requirements in § 63.4541. The initial compliance period begins on the applicable compliance date specified in § 63.4483 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through that month plus the next 12 months. The initial compliance demonstration includes the calculations according to § 63.4541 and supporting documentation showing that during the initial compliance period, you used no coating with an organic

HAP content that exceeded the applicable emission limit in § 63.4490, and that you used no thinners and/or other additives, or cleaning materials that contained organic HAP as determined according to § 63.4541(a).

§ 63.4541 How do I demonstrate initial compliance with the emission limitations?

You may use the compliant material option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. You must use either the emission rate without add-on controls option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. To demonstrate initial compliance using the compliant material option, the coating operation or group of coating operations must use no coating with an organic HAP content that exceeds the applicable emission limits in § 63.4490 and must use no thinner and/or other additive, or cleaning material that contains organic HAP as determined according to this section. Any coating operation for which you use the compliant material option is not required to meet the operating limits or work practice standards required in §§ 63.4492 and 63.4493, respectively. You must conduct a separate initial compliance demonstration for each general use coating, TPO coating, automotive lamp coating, and assembled on-road vehicle coating affected source unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in § 63.4490(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in § 63.4490(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You must meet all the requirements of this section. Use the procedures in this section on each coating, thinner and/or other additive, and cleaning material in the condition it is in when it is received from its manufacturer or supplier and prior to any alteration. You do not need to redetermine the organic HAP content of coatings, thinners and/or other additives, and cleaning materials that are reclaimed on-site (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coating operation for which you use the compliant material option, provided these materials in their condition as received were demonstrated to comply with the compliant material option.

(a) *Determine the mass fraction of organic HAP for each material used.* You must determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during the compliance period by using one of the options in paragraphs (a)(1) through (5) of this section.

(1) *Method 311 (appendix A to 40 CFR part 63).* You may use Method 311 for determining the mass fraction of organic HAP. Use the procedures specified in paragraphs (a)(1)(i) and (ii) of this section when performing a Method 311 test.

(i) Count each organic HAP that is measured to be present at 0.1 percent by mass or more for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is measured to be 0.5 percent of the material by mass, you do not have to count it. Express the mass fraction of each organic HAP you count as a value truncated to four places after the decimal point (*e.g.*, 0.3791).

(ii) Calculate the total mass fraction of organic HAP in the test material by adding up the individual organic HAP mass fractions and truncating the result to three places after the decimal point (*e.g.*, 0.763).

(2) *Method 24 (appendix A to 40 CFR part 60).* For coatings, you may use Method 24 to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for mass fraction of organic HAP. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may use the alternative method contained in appendix A to this subpart, rather than Method 24. You may use the volatile fraction that is emitted, as measured by the alternative method in appendix A to this subpart, as a substitute for the mass fraction of organic HAP.

(3) *Alternative method.* You may use an alternative test method for determining the mass fraction of organic HAP once the Administrator has approved it. You must follow the procedure in § 63.7(f) to submit an alternative test method for approval.

(4) *Information from the supplier or manufacturer of the material.* You may rely on information other than that generated by the test methods specified in paragraphs (a)(1) through (3) of this section, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is 0.5 percent of the material by mass, you do not have to count it. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may rely on manufacturer's data that expressly states the organic HAP or volatile matter mass fraction emitted. If there is a disagreement between such information and results of a test conducted according to paragraphs (a)(1) through (3) of this section, then the test method results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(5) *Solvent blends.* Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP which must be counted toward the total organic HAP mass fraction of the materials. When test data and manufacturer's data for solvent blends are not available, you may use the default values for the mass fraction of organic HAP in these solvent blends listed in Table 3 or 4 to this subpart. If you use the tables, you must use the values in Table 3 for all solvent blends that match Table 3 entries according to the instructions for Table 3, and you may use Table 4 only if the solvent blends in the materials you use do not match any of the solvent blends in Table 3 and you know only whether the blend is aliphatic or aromatic. However, if the results of a Method 311 (appendix A to 40 CFR part 63) test indicate higher values than those listed on Table 3 or 4 to this subpart, the Method 311 results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(b) *Determine the mass fraction of coating solids for each coating.* You must determine the mass fraction of coating solids (kg (lb) of coating solids per kg (lb) of coating) for each coating used during the compliance period by a test, by information provided by the supplier or the manufacturer of the material, or by calculation, as specified in paragraphs (b)(1) through (3) of this section.

(1) *Method 24 (appendix A to 40 CFR part 60).* Use Method 24 for determining the mass fraction of coating solids. For reactive adhesives in which some of the

liquid fraction reacts to form solids, you may use the alternative method contained in appendix A to this subpart, rather than Method 24, to determine the mass fraction of coating solids.

(2) *Alternative method.* You may use an alternative test method for determining the solids content of each coating once the Administrator has approved it. You must follow the procedure in § 63.7(f) to submit an alternative test method for approval.

(3) *Information from the supplier or manufacturer of the material.* You may obtain the mass fraction of coating solids for each coating from the supplier or manufacturer. If there is disagreement between such information and the test method results, then the test method results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(c) *Calculate the organic HAP content of each coating.* Calculate the organic HAP content, kg (lb) organic HAP emitted per kg (lb) coating solids used, of each coating used during the compliance period using Equation 1 of this section:

$$H_c = \frac{W_c}{S_c} \qquad \text{(Eq. 1)}$$

Where:

H_c = Organic HAP content of the coating, kg (lb) of organic HAP emitted per kg (lb) coating solids used.

W_c = Mass fraction of organic HAP in the coating, kg organic HAP per kg coating, determined according to paragraph (a) of this section.

S_c = Mass fraction of coating solids, kg coating solids per kg coating, determined according to paragraph (b) of this section.

(d) *Compliance demonstration.* The calculated organic HAP content for each coating used during the initial compliance period must be less than or equal to the applicable emission limit in § 63.4490; and each thinner and/or other additive, and cleaning material used during the initial compliance period must contain no organic HAP, determined according to paragraph (a) of this section. You must keep all records required by §§ 63.4530 and 63.4531. As part of the notification of compliance status required in § 63.4510, you must identify the coating operation(s) for which you used the compliant material option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because you used no coatings for which the organic HAP content exceeded the applicable emission limit in § 63.4490, and you used no thinners and/or other additives, or cleaning materials that contained organic HAP, determined according to the procedures in paragraph (a) of this section.

§ 63.4542 How do I demonstrate continuous compliance with the emission limitations?

(a) For each compliance period to demonstrate continuous compliance, you must use no coating for which the organic HAP content (determined using Equation 1 of § 63.4541) exceeds the applicable emission limit in § 63.4490, and use no thinner and/or other additive, or cleaning material that contains organic HAP, determined according to § 63.4541(a). A compliance period consists of 12 months. Each month, after the end of the initial compliance period described in § 63.4540, is the end of a compliance period consisting of that month and the preceding 11 months. If you are complying with a facility-specific emission limit under § 63.4490(c), you must also perform the calculation using Equation 1 in § 63.4490(c)(2) on a monthly basis using the data from the previous 12 months of operation.

(b) If you choose to comply with the emission limitations by using the compliant material option, the use of any coating, thinner and/or other additive, or cleaning material that does not meet the criteria specified in paragraph (a) of this section is a deviation from the emission limitations that must be reported as specified in §§ 63.4510(c)(6) and 63.4520(a)(5).

(c) As part of each semiannual compliance report required by § 63.4520, you must identify the coating operation(s) for which you used the compliant material option. If there were no deviations from the applicable emission limit in § 63.4490, submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because you used no coatings for which the organic HAP content exceeded the applicable emission limit in § 63.4490, and you used no thinner and/or other additive, or cleaning material that contained organic HAP, determined according to § 63.4541(a).

(d) You must maintain records as specified in §§ 63.4530 and 63.4531.

Compliance Requirements for the Emission Rate Without Add-On Controls Option

§ 63.4550 By what date must I conduct the initial compliance demonstration?

You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.4551. The initial compliance period begins on the applicable compliance date specified in § 63.4483 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and mass of coating solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the calculations according to § 63.4551 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in § 63.4490.

§ 63.4551 How do I demonstrate initial compliance with the emission limitations?

You may use the emission rate without add-on controls option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. You must use either the compliant material option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. To demonstrate initial compliance using the emission rate without add-on controls option, the coating operation or group of coating operations must meet the applicable emission limit in § 63.4490, but is not required to meet the operating limits or work practice standards in §§ 63.4492 and 63.4493, respectively. You must conduct a separate initial compliance demonstration for each general use, TPO, automotive lamp, and assembled on-road vehicle coating operation unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in § 63.4490(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in § 63.4490(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the

facility-specific emission limit comply with that limit. You must meet all the requirements of this section. When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners and/or other additives, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate with add-on controls option. You do not need to redetermine the mass of organic HAP in coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coating operation for which you use the emission rate without add-on controls option. If you use coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site, the amount of each used in a month may be reduced by the amount of each that is reclaimed. That is, the amount used may be calculated as the amount consumed to account for materials that are reclaimed.

(a) *Determine the mass fraction of organic HAP for each material.* Determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each month according to the requirements in § 63.4541(a).

(b) *Determine the mass fraction of coating solids.* Determine the mass fraction of coating solids (kg (lb) of coating solids per kg (lb) of coating) for each coating used during each month according to the requirements in § 63.4541(b).

(c) *Determine the density of each material.* Determine the density of each liquid coating, thinner and/or other additive, and cleaning material used during each month from test results using ASTM Method D1475–98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (incorporated by reference, see § 63.14), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475–98 and other such information sources, the test results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine material density. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, 1C, and 2 of this section.

(d) *Determine the volume of each material used.* Determine the volume (liters) of each coating, thinner and/or other additive, and cleaning material used during each month by measurement or usage records. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine the volume of each material used. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, 1C, and 2 of this section.

(e) *Calculate the mass of organic HAP emissions.* The mass of organic HAP emissions is the combined mass of organic HAP contained in all coatings, thinners and/or other additives, and cleaning materials used during each month minus the organic HAP in certain waste materials. Calculate the mass of organic HAP emissions using Equation 1 of this section.

$$H_e = A + B + C - R_w \qquad \text{(Eq. 1)}$$

Where:

H_e = Total mass of organic HAP emissions during the month, kg.

A = Total mass of organic HAP in the coatings used during the month, kg, as calculated in Equation 1A of this section.

B = Total mass of organic HAP in the thinners and/or other additives used during the month, kg, as calculated in Equation 1B of this section.

C = Total mass of organic HAP in the cleaning materials used during the month, kg, as calculated in Equation 1C of this section.

R_w = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the month, kg, determined according to paragraph (e)(4) of this section. (You may assign a value of zero to R_w if you do not wish to use this allowance.)

(1) Calculate the kg organic HAP in the coatings used during the month using Equation 1A of this section:

$$A = \sum_{i=1}^{m} \left(Vol_{c,i}\right)\left(D_{c,i}\right)\left(W_{c,i}\right) \qquad \text{(Eq. 1A)}$$

Where:

A = Total mass of organic HAP in the coatings used during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the month, liters.

$D_{c,i}$ = Density of coating, i, kg coating per liter coating.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating. For reactive adhesives as defined in § 63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

m = Number of different coatings used during the month.

(2) Calculate the kg of organic HAP in the thinners and/or other additives used during the month using Equation 1B of this section:

$$B = \sum_{j=1}^{n} \left(Vol_{t,j}\right)\left(D_{t,j}\right)\left(W_{t,j}\right) \qquad \text{(Eq. 1B)}$$

Where:

B = Total mass of organic HAP in the thinners and/or other additives used during the month, kg.

$Vol_{t,j}$ = Total volume of thinner and/or other additive, j, used during the month, liters.

$D_{t,j}$ = Density of thinner and/or other additive, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg organic HAP per kg thinner and/or other additive. For reactive adhesives as defined in § 63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

n = Number of different thinners and/or other additives used during the month.

(3) Calculate the kg organic HAP in the cleaning materials used during the month using Equation 1C of this section:

$$C = \sum_{k=1}^{p} \left(Vol_{s,k}\right)\left(D_{s,k}\right)\left(W_{s,k}\right) \qquad \text{(Eq. 1C)}$$

Where:

C = Total mass of organic HAP in the cleaning materials used during the month, kg.

$Vol_{s,k}$ = Total volume of cleaning material, k, used during the month, liters.

$D_{s,k}$ = Density of cleaning material, k, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg organic HAP per kg material.

p = Number of different cleaning materials used during the month.

(4) If you choose to account for the mass of organic HAP contained in waste materials sent or designated for shipment to a hazardous waste TSDF in Equation 1 of this section, then you must determine the mass according to paragraphs (e)(4)(i) through (iv) of this section.

(i) You may only include waste materials in the determination that are generated by coating operations in the affected source for which you use Equation 1 of this section and that will be treated or disposed of by a facility that is regulated as a TSDF under 40 CFR part 262, 264, 265, or 266. The TSDF may be either off-site or on-site. You may not include organic HAP contained in wastewater.

(ii) You must determine either the amount of the waste materials sent to a TSDF during the month or the amount collected and stored during the month and designated for future transport to a TSDF. Do not include in your determination any waste materials sent to a TSDF during a month if you have already included them in the amount collected and stored during that month or a previous month.

(iii) Determine the total mass of organic HAP contained in the waste materials specified in paragraph (e)(4)(ii) of this section.

(iv) You must document the methodology you use to determine the amount of waste materials and the total mass of organic HAP they contain, as required in § 63.4530(g). If waste manifests include this information, they may be used as part of the documentation of the amount of waste materials and mass of organic HAP contained in them.

(f) *Calculate the total mass of coating solids used.* Determine the total mass of coating solids used, kg, which is the combined mass of coating solids for all the coatings used during each month, using Equation 2 of this section:

$$M_{st} = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(M_{s,i}) \qquad \text{(Eq. 2)}$$

Where:

M_{st} = Total mass of coating solids used during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the month, liters.

$D_{c,i}$ = Density of coating, i, kgs per liter coating, determined according to § 63.4551(c).

$M_{s,i}$ = Mass fraction of coating solids for coating, i, kgs solids per kg coating, determined according to § 63.4541(b).

m = Number of coatings used during the month.

(g) *Calculate the organic HAP emission rate.* Calculate the organic HAP emission rate for the compliance period, kg (lb) organic HAP emitted per kg (lb) coating solids used, using Equation 3 of this section:

$$H_{yr} = \frac{\sum_{y=1}^{n} H_e}{\sum_{y=1}^{n} M_{st}} \qquad \text{(Eq. 3)}$$

Where:

H_{yr} = Average organic HAP emission rate for the compliance period, kg organic HAP emitted per kg coating solids used.

H_e = Total mass of organic HAP emissions from all materials used during month, y, kg, as calculated by Equation 1 of this section.

M_{st} = Total mass of coating solids used during month, y, kg, as calculated by Equation 2 of this section.

y = Identifier for months.

n = Number of full or partial months in the compliance period (for the initial compliance period, n equals 12 if the compliance date falls on the first day of a month; otherwise n equals 13; for all following compliance periods, n equals 12).

(h) *Compliance demonstration.* The organic HAP emission rate for the initial compliance period calculated using Equation 3 of this section must be less than or equal to the applicable emission limit for each subcategory in § 63.4490 or the predominant activity or facility-specific emission limit allowed in § 63.4490(c). You must keep all records as required by §§ 63.4530 and 63.4531. As part of the notification of compliance status required by § 63.4510, you must identify the coating operation(s) for which you used the emission rate without add-on controls option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in § 63.4490, determined according to the procedures in this section.

§ 63.4552 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance, the organic HAP emission rate for each compliance period, determined according to § 63.4551(a) through (g), must be less than or equal to the applicable emission limit in § 63.4490. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in § 63.4550 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in § 63.4551(a) through (g) on a monthly basis using data from the previous 12 months of operation. If you are complying with a facility-specific emission limit under § 63.4490(c), you must also perform the calculation using Equation 1 in § 63.4490(c)(2) on a monthly basis using the data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in § 63.4490, this is a deviation from the emission limitation for that compliance period and must be reported as specified in §§ 63.4510(c)(6) and 63.4520(a)(6).

(c) As part of each semiannual compliance report required by § 63.4520, you must identify the coating operation(s) for which you used the emission rate without add-on controls option. If there were no deviations from the emission limitations, you must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in § 63.4490, determined according to § 63.4551(a) through (g).

(d) You must maintain records as specified in §§ 63.4530 and 63.4531.

Compliance Requirements for the Emission Rate With Add-On Controls Option

§ 63.4560 By what date must I conduct performance tests and other initial compliance demonstrations?

(a) *New and reconstructed affected sources.* For a new or reconstructed affected source, you must meet the requirements of paragraphs (a)(1) through (4) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in § 63.4483. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.4561(j), you must conduct a performance test of each capture system and add-on control device according to §§ 63.4564, 63.4565, and 63.4566 and establish the operating limits required by § 63.4492 no later than 180 days after the applicable compliance date specified in § 63.4483. For a solvent recovery system for which you conduct liquid-liquid material balances according to § 63.4561(j), you must initiate the first material balance no later than the applicable compliance date specified in § 63.4483.

(2) You must develop and begin implementing the work practice plan required by § 63.4493 no later than the compliance date specified in § 63.4483.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.4561. The initial compliance period begins on the applicable compliance date specified in § 63.4483 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and mass of coatings solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§ 63.4564, 63.4565, and 63.4566; results of liquid-liquid material balances conducted according to § 63.4561(j); calculations according to § 63.4561 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in § 63.4490; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.4568; and documentation of whether you developed and implemented the work practice plan required by § 63.4493.

(4) You do not need to comply with the operating limits for the emission capture system and add-on control device required by § 63.4492 until after you have completed the performance tests specified in paragraph (a)(1) of this section. Instead, you must maintain a log detailing the operation and maintenance of the emission capture system, add-on control device, and continuous parameter monitors during the period between the compliance date and the performance test. You must begin complying with the operating limits for your affected source on the date you complete the performance tests specified in paragraph (a)(1) of this section. The requirements in this paragraph (a)(4) do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements in § 63.4561(j).

(b) *Existing affected sources.* For an existing affected source, you must meet the requirements of paragraphs (b)(1) through (3) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in § 63.4483. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.4561(j), you must conduct a performance test of each capture system and add-on control device according to the procedures in §§ 63.4564, 63.4565, and 63.4566 and establish the operating limits required by § 63.4492 no later than the compliance date specified in § 63.4483. For a solvent recovery system for which you conduct liquid-liquid material balances according to § 63.4561(j), you must initiate the first material balance no later than the compliance date specified in § 63.4483.

(2) You must develop and begin implementing the work practice plan required by § 63.4493 no later than the compliance date specified in § 63.4483.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.4561. The initial compliance period begins on the applicable compliance date specified in § 63.4483 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and mass of coatings solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§ 63.4564, 63.4565, and 63.4566; results of liquid-liquid material balances conducted according to § 63.4561(j); calculations according to § 63.4561 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in § 63.4490; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.4568; and documentation of whether you developed and implemented the work practice plan required by § 63.4493.

(c) You are not required to conduct an initial performance test to determine capture efficiency or destruction efficiency of a capture system or control device if you receive approval to use the results of a performance test that has been previously conducted on that capture system or control device. Any such previous tests must meet the conditions described in paragraphs (c)(1) through (3) of this section.

(1) The previous test must have been conducted using the methods and conditions specified in this subpart.

(2) Either no process or equipment changes must have been made since the previous test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

(3) Either the required operating parameters were established in the previous test or sufficient data were collected in the previous test to establish the required operating parameters.

§ 63.4561 How do I demonstrate initial compliance?

(a) You may use the emission rate with add-on controls option for any coating operation, for any group of coating operations in the affected source, or for all of the coating operations in the affected source. You may include both controlled and uncontrolled coating operations in a group for which you use this option. You must use either the compliant material option or the emission rate without add-on controls option for any coating operation in the affected source for which you do not use the emission rate with add-on controls option. To demonstrate initial compliance, the coating operation(s) for which you use the emission rate with add-on controls option must meet the applicable emission limitations in §§ 63.4490, 63.4492, and 63.4493. You must conduct a separate initial compliance demonstration for each general use, TPO, automotive lamp, and assembled on-road vehicle coating operation, unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in § 63.4490(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in § 63.4490(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You must meet all the requirements of this section. When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners and/or other additives, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate without add-on controls

option. You do not need to redetermine the mass of organic HAP in coatings, thinners and/or other additives, or cleaning materials that have been reclaimed onsite (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coatings operation(s) for which you use the emission rate with add-on controls option. If you use coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site, the amount of each used in a month may be reduced by the amount of each that is reclaimed. That is, the amount used may be calculated as the amount consumed to account for materials that are reclaimed.

(b) *Compliance with operating limits.* Except as provided in § 63.4560(a)(4), and except for solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements of paragraph (j) of this section, you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by § 63.4492, using the procedures specified in §§ 63.4567 and 63.4568.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plan required by § 63.4493 during the initial compliance period, as specified in § 63.4530.

(d) *Compliance with emission limits.* You must follow the procedures in paragraphs (e) through (n) of this section to demonstrate compliance with the applicable emission limit in § 63.4490 for each affected source in each subcategory.

(e) *Determine the mass fraction of organic HAP, density, volume used, and mass fraction of coating solids.* Follow the procedures specified in § 63.4551(a) through (d) to determine the mass fraction of organic HAP, density, and volume of each coating, thinner and/or other additive, and cleaning material used during each month; and the mass fraction of coating solids for each coating used during each month.

(f) *Calculate the total mass of organic HAP emissions before add-on controls.* Using Equation 1 of § 63.4551, calculate the total mass of organic HAP emissions before add-on controls from all coatings, thinners and/or other additives, and cleaning materials used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option.

(g) *Calculate the organic HAP emission reduction for each controlled coating operation.* Determine the mass of organic HAP emissions reduced for each controlled coating operation during each month. The emission reduction determination quantifies the total organic HAP emissions that pass through the emission capture system and are destroyed or removed by the add-on control device. Use the procedures in paragraph (h) of this section to calculate the mass of organic HAP emission reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. For each controlled coating operation using a solvent recovery system for which you conduct a liquid-liquid material balance, use the procedures in paragraph (j) of this section to calculate the organic HAP emission reduction.

(h) *Calculate the organic HAP emission reduction for each controlled coating operation not using liquid-liquid material balance.* Use Equation 1 of this section to calculate the organic HAP emission reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. The calculation applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings, thinners and/or other additives, and cleaning materials that are used in the coating operation served by the emission capture system and add-on control device during each month. You must assume zero efficiency for the emission capture system and add-on control device for any period of time a deviation specified in § 63.4563(c) or (d) occurs in the controlled coating operation, including a deviation during a period of startup, shutdown, or malfunction, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device and the use of these data is approved by the Administrator. Equation 1 of this section treats the materials used during such a deviation as if they were used on an uncontrolled coating operation for the time period of the deviation.

$$H_C = \left(A_C + B_C + C_C - R_W - H_{UNC}\right)\left(\frac{CE}{100} \times \frac{DRE}{100}\right) \quad \text{(Eq. 1)}$$

Where:

H_C = Mass of organic HAP emission reduction for the controlled coating operation during the month, kg.

A_C = Total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg, as calculated in Equation 1A of this section.

B_C = Total mass of organic HAP in the thinners and/or other additives used in the controlled coating operation during the month, kg, as calculated in Equation 1B of this section.

C_C = Total mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg, as calculated in Equation 1C of this section.

R_w = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the compliance period, kg, determined according to § 63.4951(e)(4). (You may assign a value of zero to R_w if you do not wish to use this allowance.)

H_{UNC} = Total mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used during all deviations specified in § 63.4563(c) and (d) that occurred during the month in the controlled coating operation, kg, as calculated in Equation 1D of this section.

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent. Use the test methods and procedures specified in §§ 63.4564 and 63.4565 to measure and record capture efficiency.

DRE = Organic HAP destruction or removal efficiency of the add-on control device, percent. Use the test methods and procedures in §§ 63.4564 and 63.4566 to measure and record the organic HAP destruction or removal efficiency.

(1) Calculate the mass of organic HAP in the coatings used in the controlled coating operation, kg (lb), using Equation 1A of this section:

$$A_C = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i}) \quad \text{(Eq. 1A)}$$

Where:

A_C = Total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the month, liters.

$D_{c,i}$ = Density of coating, i, kg per liter.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg per kg. For reactive adhesives as defined in § 63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

m = Number of different coatings used.

(2) Calculate the mass of organic HAP in the thinners and/or other additives used in the controlled coating operation, kg (lb), using Equation 1B of this section:

$$B_C = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \quad \text{(Eq. 1B)}$$

Where:

B_C = Total mass of organic HAP in the thinners and/or other additives used in the controlled coating operation during the month, kg.

$Vol_{t,j}$ = Total volume of thinner and/or other additive, j, used during the month, liters.

$D_{t,j}$ = Density of thinner and/or other additive, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg per kg. For reactive adhesives as defined in § 63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

n = Number of different thinners and/or other additives used.

(3) Calculate the mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg (lb), using Equation 1C of this section:

$$C_C = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k}) \quad \text{(Eq. 1C)}$$

Where:

C_C = Total mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg.

$Vol_{s,k}$ = Total volume of cleaning material, k, used during the month, liters.

$D_{s,k}$ = Density of cleaning material, k, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg per kg.

p = Number of different cleaning materials used.

(4) Calculate the mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used in the controlled coating operation during deviations specified in § 63.4563(c) and (d), using Equation 1D of this section:

$$H_{UNC} = \sum_{h=1}^{q} (Vol_h)(D_h)(W_h) \quad \text{(Eq. 1D)}$$

Where:

H_{UNC} = Total mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used during all deviations specified in § 63.4563(c) and (d) that occurred during the month in the controlled coating operation, kg.

Vol_h = Total volume of coating, thinner and/or other additive, or cleaning material, h, used in the controlled coating operation during deviations, liters.

D_h = Density of coating, thinner and/or other additives, or cleaning material, h, kg per liter.

W_h = Mass fraction of organic HAP in coating, thinner and/or other additives, or cleaning material, h, kg organic HAP per kg coating. For reactive adhesives as defined in § 63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

q = Number of different coatings, thinners and/or other additives, and cleaning materials used.

(i) [Reserved]

(j) *Calculate the organic HAP emission reduction for each controlled coating operation using liquid-liquid material balances.* For each controlled coating operation using a solvent recovery system for which you conduct liquid-liquid material balances, calculate the organic HAP emission reduction by applying the volatile organic matter collection and recovery efficiency to the mass of organic HAP contained in the coatings, thinners and/or other additives, and cleaning materials that are used in the coating operation controlled by the solvent recovery system during each month. Perform a liquid-liquid material balance for each month as specified in paragraphs (j)(1) through (6) of this section. Calculate the mass of organic HAP emission reduction by the solvent recovery system as specified in paragraph (j)(7) of this section.

(1) For each solvent recovery system, install, calibrate, maintain, and operate according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile organic matter recovered by the solvent recovery system each month. The device must be initially certified by the manufacturer to be accurate to within ± 2.0 percent of the mass of volatile organic matter recovered.

(2) For each solvent recovery system, determine the mass of volatile organic matter recovered for the month, based on measurement with the device required in paragraph (j)(1) of this section.

(3) Determine the mass fraction of volatile organic matter for each coating, thinner and/or other additive, and cleaning material used in the coating operation controlled by the solvent recovery system during the month, kg volatile organic matter per kg coating. You may determine the volatile organic matter mass fraction using Method 24 of 40 CFR part 60, appendix A, or an EPA approved alternative method, or you may use information provided by the manufacturer or supplier of the coating. In the event of any inconsistency between information provided by the manufacturer or supplier and the results of Method 24 of 40 CFR part 60, appendix A, or an approved alternative method, the test method results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(4) Determine the density of each coating, thinner and/or other additive, and cleaning material used in the coating operation controlled by the solvent recovery system during the month, kg per liter, according to § 63.4551(c).

(5) Measure the volume of each coating, thinner and/or other additive, and cleaning material used in the coating operation controlled by the solvent recovery system during the month, liters.

(6) Each month, calculate the solvent recovery system's volatile organic matter collection and recovery efficiency, using Equation 2 of this section:

$$R_V = 100 \frac{M_{VR}}{\sum_{i=1}^{m} Vol_i D_i WV_{c,i} + \sum_{j=1}^{n} Vol_j D_j WV_{t,j} + \sum_{k=1}^{p} Vol_k D_k WV_{s,k}} \quad \text{(Eq. 2)}$$

Where:

R_V = Volatile organic matter collection and recovery efficiency of the solvent recovery system during the month, percent.

M_{VR} = Mass of volatile organic matter recovered by the solvent recovery system during the month, kg.

Vol_i = Volume of coating, i, used in the coating operation controlled by the solvent recovery system during the month, liters.

D_i = Density of coating, i, kg per liter.

$WV_{c,i}$ = Mass fraction of volatile organic matter for coating, i, kg volatile organic matter per kg coating. For reactive adhesives as defined in § 63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

Vol_j = Volume of thinner and/or other additive, j, used in the coating operation controlled by the solvent recovery system during the month, liters.

D_j = Density of thinner and/or other additive, j, kg per liter.

$WV_{t,j}$ = Mass fraction of volatile organic matter for thinner and/or other additive, j, kg volatile organic matter per kg thinner and/or other additive. For reactive adhesives as defined in § 63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

Vol_k = Volume of cleaning material, k, used in the coating operation controlled by the solvent recovery system during the month, liters.

D_k = Density of cleaning material, k, kg per liter.

$WV_{s,k}$ = Mass fraction of volatile organic matter for cleaning material, k, kg volatile organic matter per kg cleaning material.

m = Number of different coatings used in the coating operation controlled by the solvent recovery system during the month.

n = Number of different thinners and/or other additives used in the coating operation controlled by the solvent recovery system during the month.

p = Number of different cleaning materials used in the coating operation controlled by the solvent recovery system during the month.

(7) Calculate the mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system during the month, using Equation 3 of this section and according to paragraphs (j)(7)(i) through (iii) of this section:

$$H_{CSR} = (A_{CSR} + B_{CSR} + C_{CSR}) \left(\frac{R_v}{100}\right) \quad \text{(Eq. 3)}$$

Where:

H_{CSR} = Mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system using a liquid-liquid material balance during the month, kg.

A_{CSR} = Total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3A of this section.

B_{CSR} = Total mass of organic HAP in the thinners and/or other additives used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3B of this section.

C_{CSR} = Total mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3C of this section.

R_V = Volatile organic matter collection and recovery efficiency of the solvent recovery system, percent, from Equation 2 of this section.

(i) Calculate the mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, using Equation 3A of this section.

$$A_{CSR} = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i}) \quad \text{(Eq. 3A)}$$

Where:

A_{CSR} = Total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the month in the coating operation controlled by the solvent recovery system, liters.

$D_{c,i}$ = Density of coating, i, kg per liter.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating. For reactive adhesives as defined in § 63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

m = Number of different coatings used.

(ii) Calculate the mass of organic HAP in the thinners and/or other additives used in the coating operation controlled by the solvent recovery system, kg, using Equation 3B of this section:

$$B_{CSR} = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \quad \text{(Eq. 3B)}$$

Where:

B_{CSR} = Total mass of organic HAP in the thinners and/or other additives used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{t,j}$ = Total volume of thinner and/or other additive, j, used during the month in the coating operation controlled by the solvent recovery system, liters.

$D_{t,j}$ = Density of thinner and/or other additive, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg organic HAP per kg thinner and/or other additive. For reactive adhesives as defined in § 63.4581, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to this subpart.

n = Number of different thinners and/or other additives used.

(iii) Calculate the mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system during the month, kg, using Equation 3C of this section:

$$C_{CSR}=\sum_{k=1}^{p}\left(Vol_{s,k}\right)\left(D_{s,k}\right)\left(W_{s,k}\right) \quad \text{(Eq. 3C)}$$

Where:

C_{CSR} = Total mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{s,k}$ = Total volume of cleaning material, k, used during the month in the coating operation controlled by the solvent recovery system, liters.

$D_{s,k}$ = Density of cleaning material, k, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg organic HAP per kg cleaning material.

p = Number of different cleaning materials used.

(k) *Calculate the total mass of coating solids used.* Determine the total mass of coating solids used, kg, which is the combined mass of coating solids for all the coatings used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option, using Equation 2 of § 63.4551.

(l) *Calculate the mass of organic HAP emissions for each month.* Determine the mass of organic HAP emissions, kg, during each month, using Equation 4 of this section:

$$H_{HAP}=H_e-\sum_{i=1}^{q}\left(H_{C,i}\right)-\sum_{j=1}^{r}\left(H_{CSR,j}\right) \quad \text{(Eq. 4)}$$

Where:

H_{HAP} = Total mass of organic HAP emissions for the month, kg.

H_e = Total mass of organic HAP emissions before add-on controls from all the coatings, thinners and/or other additives, and cleaning materials used during the month, kg, determined according to paragraph (f) of this section.

$H_{C,i}$ = Total mass of organic HAP emission reduction for controlled coating operation, i, not using a liquid-liquid material balance, during the month, kg, from Equation 1 of this section.

$H_{CSR,j}$ = Total mass of organic HAP emission reduction for coating operation, j, controlled by a solvent recovery system using a liquid-liquid material balance, during the month, kg, from Equation 3 of this section.

q = Number of controlled coating operations not controlled by a solvent recovery system using a liquid-liquid material balance.

r = Number of coating operations controlled by a solvent recovery system using a liquid-liquid material balance.

(m) *Calculate the organic HAP emission rate for the compliance period.* Determine the organic HAP emission rate for the compliance period, kg (lb) of organic HAP emitted per kg (lb) coating solids used, using Equation 5 of this section:

$$H_{annual}=\frac{\sum_{y=1}^{n}H_{HAP,y}}{\sum_{y=1}^{n}M_{st,y}} \quad \text{(Eq. 5)}$$

Where:

H_{annual} = Organic HAP emission rate for the compliance period, kg organic HAP emitted per kg coating solids used.

$H_{HAP,y}$ = Organic HAP emissions for month, y, kg, determined according to Equation 4 of this section.

$M_{st,y}$ = Total mass of coating solids used during month, y, kg, from Equation 2 of § 63.4551.

y = Identifier for months.

n = Number of full or partial months in the compliance period (for the initial compliance period, n equals 12 if the compliance date falls on the first day of a month; otherwise n equals 13; for all following compliance periods, n equals 12).

(n) *Compliance demonstration.* The organic HAP emission rate for the initial compliance period, calculated using Equation 5 of this section, must be less than or equal to the applicable emission limit for each subcategory in § 63.4490 or the predominant activity or facility-specific emission limit allowed in § 63.4490(c). You must keep all records as required by §§ 63.4530 and 63.4531. As part of the notification of compliance status required by § 63.4510, you must identify the coating operation(s) for which you used the emission rate with add-on controls option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in § 63.4490, and you achieved the operating limits required by § 63.4492 and the work practice standards required by § 63.4493.

§ 63.4562 [Reserved]

§ 63.4563 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance with the applicable emission limit in § 63.4490, the organic HAP emission rate for each compliance period, determined according to the procedures in § 63.4561, must be equal to or less than the applicable emission limit in § 63.4490. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in § 63.4560 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in § 63.4561 on a monthly basis using data from the previous 12 months of operation. If you are complying with a facility-specific emission limit under § 63.4490(c), you must also perform the calculation using Equation 1 in § 63.4490(c)(2) on a monthly basis using the data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in § 63.4490, this is a deviation from the emission limitation for that compliance period that must be reported as specified in §§ 63.4510(c)(6) and 63.4520(a)(7).

(c) You must demonstrate continuous compliance with each operating limit required by § 63.4492 that applies to you, as specified in Table 1 to this subpart, when the coating line is in operation.

(1) If an operating parameter is out of the allowed range specified in Table 1 to this subpart, this is a deviation from the operating limit that must be reported as specified in §§ 63.4510(c)(6) and 63.4520(a)(7).

(2) If an operating parameter deviates from the operating limit specified in Table 1 to this subpart, then you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device and the use of these data is approved by the Administrator.

(d) You must meet the requirements for bypass lines in § 63.4568(b) for controlled coating operations for which you do not conduct liquid-liquid material balances. If any bypass line is opened and emissions are diverted to the atmosphere when the coating operation is running, this is a deviation that must be reported as specified in §§ 63.4510(c)(6) and 63.4520(a)(7). For the purposes of completing the compliance calculations specified in §§ 63.4561(h), you must treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation as indicated in Equation 1 of § 63.4561.

(e) You must demonstrate continuous compliance with the work practice standards in § 63.4493. If you did not develop a work practice plan, or you did not implement the plan, or you did not keep the records required by § 63.4530(i)(8), this is a deviation from the work practice standards that must be reported as specified in §§ 63.4510(c)(6) and 63.4520(a)(7).

(f) As part of each semiannual compliance report required in § 63.4520, you must identify the coating operation(s) for which you used the emission rate with add-on controls option. If there were no deviations from the emission limitations, submit a statement that you were in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in § 63.4490, and you achieved the operating limits required by § 63.4492 and the work practice standards required by § 63.4493 during each compliance period.

(g) During periods of startup, shutdown, or malfunction of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency, you must operate in accordance with the startup, shutdown, and malfunction plan required by § 63.4500(c).

(h)–(i) [Reserved]

(j) You must maintain records as specified in §§ 63.4530 and 63.4531.

§ 63.4564 What are the general requirements for performance tests?

(a) You must conduct each performance test required by § 63.4560 according to the requirements in § 63.7(e)(1) and under the conditions in this section, unless you obtain a waiver of the performance test according to the provisions in § 63.7(h).

(1) *Representative coating operation operating conditions.* You must conduct the performance test under representative operating conditions for the coating operation. Operations during periods of startup, shutdown, or malfunction and during periods of nonoperation do not constitute representative conditions. You must record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation.

(2) *Representative emission capture system and add-on control device operating conditions.* You must conduct the performance test when the emission capture system and add-on control device are operating at a representative flow rate, and the add-on control device is operating at a representative inlet concentration. You must record information that is necessary to document emission capture system and add-on control device operating conditions during the test and explain why the conditions represent normal operation.

(b) You must conduct each performance test of an emission capture system according to the requirements in § 63.4565. You must conduct each performance test of an add-on control device according to the requirements in § 63.4566.

§ 63.4565 How do I determine the emission capture system efficiency?

You must use the procedures and test methods in this section to determine capture efficiency as part of the performance test required by § 63.4560.

(a) *Assuming 100 percent capture efficiency.* You may assume the capture system efficiency is 100 percent if both of the conditions in paragraphs (a)(1) and (2) of this section are met:

(1) The capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and directs all the exhaust gases from the enclosure to an add-on control device.

(2) All coatings, thinners and/or other additives, and cleaning materials used in the coating operation are applied within the capture system; coating solvent flash-off, curing, and drying occurs within the capture system; and the removal or evaporation of cleaning materials from the surfaces they are applied to occurs within the capture system. For example, this criterion is not met if parts enter the open shop environment when being moved between a spray booth and a curing oven.

(b) *Measuring capture efficiency.* If the capture system does not meet both of the criteria in paragraphs (a)(1) and (2) of this section, then you must use one of the three protocols described in paragraphs (c), (d), and (e) of this section to measure capture efficiency. The capture efficiency measurements use TVH capture efficiency as a surrogate for organic HAP capture efficiency. For the protocols in paragraphs (c) and (d) of this section, the capture efficiency measurement must consist of three test runs. Each test run must be at least 3 hours duration or the length of a production run, whichever is longer, up to 8 hours. For the purposes of this test, a production run means the time required for a single part to go from the beginning to the end of the production, which includes surface preparation activities and drying and curing time.

(c) *Liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* The liquid-to-uncaptured-gas protocol compares the mass of liquid TVH in materials used in the coating operation to the mass of TVH emissions not captured by the emission capture system. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (c)(1) through (6) of this section to measure emission capture system efficiency using the liquid-to-uncaptured-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners and/or other additives, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions for routing to an add-on control device, such as the entrance and exit areas of an oven or spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204A or 204F of appendix M to 40 CFR part 51 to determine the mass fraction of TVH liquid input from each coating, thinner and/or other additive, and cleaning material used in the coating operation during each capture efficiency test run. To make the determination, substitute TVH for each occurrence of the term volatile organic compounds (VOC) in the methods.

(3) Use Equation 1 of this section to calculate the total mass of TVH liquid input from all the coatings, thinners and/or other additives, and cleaning

materials used in the coating operation during each capture efficiency test run:

$$TVH_{used} = \sum_{i=1}^{n} (TVH_i)(Vol_i)(D_i) \quad \text{(Eq. 1)}$$

Where:

TVH_{used} = Mass of liquid TVH in materials used in the coating operation during the capture efficiency test run, kg.

TVH_i = Mass fraction of TVH in coating, thinner and/or other additive, or cleaning material, i, that is used in the coating operation during the capture efficiency test run, kg TVH per kg material.

Vol_i = Total volume of coating, thinner and/or other additive, or cleaning material, i, used in the coating operation during the capture efficiency test run, liters.

D_i = Density of coating, thinner and/or other additive, or cleaning material, i, kg material per liter material.

n = Number of different coatings, thinners and/or other additives, and cleaning materials used in the coating operation during the capture efficiency test run.

(4) Use Method 204D or 204E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system. They are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D of appendix M to 40 CFR part 51 if the enclosure is a temporary total enclosure.

(ii) Use Method 204E of appendix M to 40 CFR 51 if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.

(5) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 2 of this section:

$$CE = \frac{(TVH_{used} - TVH_{uncaptured})}{TVH_{used}} \times 100 \quad \text{(Eq. 2)}$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

TVH_{used} = Total mass of TVH liquid input used in the coating operation during the capture efficiency test run, kg.

$TVH_{uncaptured}$ = Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.

(6) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(d) *Gas-to-gas protocol using a temporary total enclosure or a building enclosure.* The gas-to-gas protocol compares the mass of TVH emissions captured by the emission capture system to the mass of TVH emissions not captured. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (d)(1) through (5) of this section to measure emission capture system efficiency using the gas-to-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners and/or other additives, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions generated by the coating operation for routing to an add-on control device, such as the entrance and exit areas of an oven or a spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204B or 204C of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions captured by the emission capture system during each capture efficiency test run as measured at the inlet to the add-on control device. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) The sampling points for the Method 204B or 204C measurement must be upstream from the add-on control device and must represent total emissions routed from the capture system and entering the add-on control device.

(ii) If multiple emission streams from the capture system enter the add-on control device without a single common duct, then the emissions entering the add-on control device must be simultaneously measured in each duct and the total emissions entering the add-on control device must be determined.

(3) Use Method 204D or 204E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system; they are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D of appendix M to 40 CFR part 51 if the enclosure is a temporary total enclosure.

(ii) Use Method 204E of appendix M to 40 CFR part 51 if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.

(4) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 3 of this section:

$$CE = \frac{TVH_{captured}}{(TVH_{captured} + TVH_{uncaptured})} \times 100 \quad \text{(Eq. 3)}$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

$TVH_{captured}$ = Total mass of TVH captured by the emission capture system as measured at the inlet to the add-on control device during the emission capture efficiency test run, kg.

$TVH_{uncaptured}$ = Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.

(5) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(e) *Alternative capture efficiency protocol.* As an alternative to the procedures specified in paragraphs (c) and (d) of this section and subject to the approval of the Administrator, you may determine capture efficiency using any other capture efficiency protocol and test methods that satisfy the criteria of either the DQO or LCL approach as described in appendix A to subpart KK of this part.

§ 63.4566 How do I determine the add-on control device emission destruction or removal efficiency?

You must use the procedures and test methods in this section to determine the add-on control device emission destruction or removal efficiency as part of the performance test required by § 63.4560. You must conduct three test runs as specified in § 63.7(e)(3) and each test run must last at least 1 hour.

(a) For all types of add-on control devices, use the test methods specified in paragraphs (a)(1) through (5) of this section.

(1) Use Method 1 or 1A of appendix A to 40 CFR part 60, as appropriate, to select sampling sites and velocity traverse points.

(2) Use Method 2, 2A, 2C, 2D, 2F, or 2G of appendix A to 40 CFR part 60, as appropriate, to measure gas volumetric flow rate.

(3) Use Method 3, 3A, or 3B of appendix A to 40 CFR part 60, as appropriate, for gas analysis to determine dry molecular weight.

(4) Use Method 4 of appendix A to 40 CFR part 60, to determine stack gas moisture.

(5) Methods for determining gas volumetric flow rate, dry molecular weight, and stack gas moisture must be performed, as applicable, during each test run.

(b) Measure total gaseous organic mass emissions as carbon at the inlet and outlet of the add-on control device simultaneously, using either Method 25 or 25A of appendix A to 40 CFR part 60.

(1) Use Method 25 if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be more than 50 parts per million (ppm) at the control device outlet.

(2) Use Method 25A if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be 50 ppm or less at the control device outlet.

(3) Use Method 25A if the add-on control device is not an oxidizer.

(c) If two or more add-on control devices are used for the same emission stream, then you must measure emissions at the outlet to the atmosphere of each device. For example, if one add-on control device is a concentrator with an outlet to the atmosphere for the high-volume dilute stream that has been treated by the concentrator, and a second add-on control device is an oxidizer with an outlet to the atmosphere for the low-volume concentrated stream that is treated with the oxidizer, you must measure emissions at the outlet of the oxidizer and the high volume dilute stream outlet of the concentrator.

(d) For each test run, determine the total gaseous organic emissions mass flow rates for the inlet and the outlet of the add-on control device, using Equation 1 of this section. If there is more than one inlet or outlet to the add-on control device, you must calculate the total gaseous organic mass flow rate using Equation 1 of this section for each inlet and each outlet and then total all of the inlet emissions and total all of the outlet emissions:

$$M_f = Q_{sd} C_c (12)(0.0416)(10^{-6}) \quad \text{(Eq. 1)}$$

Where:

M_f = Total gaseous organic emissions mass flow rate, kg/per hour (h).

C_c = Concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, parts per million by volume (ppmv), dry basis.

Q_{sd} = Volumetric flow rate of gases entering or exiting the add-on control device, as determined by Method 2, 2A, 2C, 2D, 2F, or 2G, dry standard cubic meters/hour (dscm/h).

0.0416 = Conversion factor for molar volume, kg-moles per cubic meter (mol/m^3) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg)).

(e) For each test run, determine the add-on control device organic emissions destruction or removal efficiency, using Equation 2 of this section:

$$DRE = \frac{M_{fi} - M_{fo}}{M_{fi}} \times 100 \quad \text{(Eq. 2)}$$

Where:

DRE = Organic emissions destruction or removal efficiency of the add-on control device, percent.

M_{fi} = Total gaseous organic emissions mass flow rate at the inlet(s) to the add-on control device, using Equation 1 of this section, kg/h.

M_{fo} = Total gaseous organic emissions mass flow rate at the outlet(s) of the add-on control device, using Equation 1 of this section, kg/h.

(f) Determine the emission destruction or removal efficiency of the add-on control device as the average of the efficiencies determined in the three test runs and calculated in Equation 2 of this section.

§ 63.4567 How do I establish the emission capture system and add-on control device operating limits during the performance test?

During the performance test required by § 63.4560 and described in §§ 63.4564, 63.4565, and 63.4566, you must establish the operating limits required by § 63.4492 according to this section, unless you have received approval for alternative monitoring and operating limits under § 63.8(f) as specified in § 63.4492.

(a) *Thermal oxidizers.* If your add-on control device is a thermal oxidizer, establish the operating limits according to paragraphs (a)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.

(2) Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature is the minimum operating limit for your thermal oxidizer.

(b) *Catalytic oxidizers.* If your add-on control device is a catalytic oxidizer, establish the operating limits according to either paragraphs (b)(1) and (2) or paragraphs (b)(3) and (4) of this section.

(1) During the performance test, you must monitor and record the temperature just before the catalyst bed and the temperature difference across the catalyst bed at least once every 15

minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. These are the minimum operating limits for your catalytic oxidizer.

(3) You must monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in paragraph (b)(4) of this section. During the performance test, you must monitor and record the temperature just before the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer.

(4) You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s) for which you elect to monitor according to paragraph (b)(3) of this section. The plan must address, at a minimum, the elements specified in paragraphs (b)(4)(i) through (iii) of this section.

(i) Annual sampling and analysis of the catalyst activity (*i.e.*, conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures. If problems are found during the catalyst activity test, you must replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations.

(ii) Monthly external inspection of the catalytic oxidizer system, including the burner assembly and fuel supply lines for problems and, as necessary, adjust the equipment to assure proper air-to-fuel mixtures.

(iii) Annual internal inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found during the annual internal inspection of the catalyst, you must replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations. If the catalyst bed is replaced and is not of like or better kind and quality as the old catalyst then you must conduct a new performance test to determine destruction efficiency according to § 63.4566. If a catalyst bed is replaced and the replacement catalyst is of like or better kind and quality as the old catalyst, then a new performance test to determine destruction efficiency is not required and you may continue to use the previously established operating limits for that catalytic oxidizer.

(c) *Regenerative carbon adsorbers.* If your add-on control device is a regenerative carbon adsorber, establish the operating limits according to paragraphs (c)(1) and (2) of this section.

(1) You must monitor and record the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle, and the carbon bed temperature after each carbon bed regeneration and cooling cycle for the regeneration cycle either immediately preceding or immediately following the performance test.

(2) The operating limits for your regenerative carbon adsorber are the minimum total desorbing gas mass flow recorded during the regeneration cycle and the maximum carbon bed temperature recorded after the cooling cycle.

(d) *Condensers.* If your add-on control device is a condenser, establish the operating limits according to paragraphs (d)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the condenser outlet (product side) gas temperature at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average condenser outlet (product side) gas temperature maintained during the performance test. This average condenser outlet gas temperature is the maximum operating limit for your condenser.

(e) *Concentrators.* If your add-on control device includes a concentrator, you must establish operating limits for the concentrator according to paragraphs (e)(1) through (4) of this section.

(1) During the performance test, you must monitor and record the desorption concentrate stream gas temperature at least once every 15 minutes during each of the three runs of the performance test.

(2) Use the data collected during the performance test to calculate and record the average temperature. This is the minimum operating limit for the desorption concentrate gas stream temperature.

(3) During the performance test, you must monitor and record the pressure drop of the dilute stream across the concentrator at least once every 15 minutes during each of the three runs of the performance test.

(4) Use the data collected during the performance test to calculate and record the average pressure drop. This is the minimum operating limit for the dilute stream across the concentrator.

(f) *Emission capture systems.* For each capture device that is not part of a PTE that meets the criteria of § 63.4565(a), establish an operating limit for either the gas volumetric flow rate or duct static pressure, as specified in paragraphs (f)(1) and (2) of this section. The operating limit for a PTE is specified in Table 1 to this subpart.

(1) During the capture efficiency determination required by § 63.4560 and described in §§ 63.4564 and 63.4565, you must monitor and record either the gas volumetric flow rate or the duct static pressure for each separate capture device in your emission capture system at least once every 15 minutes during each of the three test runs at a point in the duct between the capture device and the add-on control device inlet.

(2) Calculate and record the average gas volumetric flow rate or duct static pressure for the three test runs for each capture device. This average gas volumetric flow rate or duct static pressure is the minimum operating limit for that specific capture device.

§ 63.4568 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?

(a) *General.* You must install, operate, and maintain each CPMS specified in paragraphs (c), (e), (f), and (g) of this section according to paragraphs (a)(1) through (6) of this section. You must install, operate, and maintain each CPMS specified in paragraphs (b) and (d) of this section according to paragraphs (a)(3) through (5) of this section.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four equally spaced successive cycles of CPMS operation in 1 hour.

(2) You must determine the average of all recorded readings for each successive 3-hour period of the emission capture system and add-on control device operation.

(3) You must record the results of each inspection, calibration, and validation check of the CPMS.

(4) You must maintain the CPMS at all times and have available necessary parts for routine repairs of the monitoring equipment.

(5) You must operate the CPMS and collect emission capture system and add-on control device parameter data at all times that a controlled coating operation is operating, except during monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, if applicable, calibration checks and required zero and span adjustments).

(6) You must not use emission capture system or add-on control device parameter data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities when calculating data averages. You must use all the data collected during all other periods in calculating the data averages for determining compliance with the emission capture system and add-on control device operating limits.

(7) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the CPMS to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system is out-of-control and data are not available for required calculations is a deviation from the monitoring requirements.

(b) *Capture system bypass line.* You must meet the requirements of paragraphs (b)(1) and (2) of this section for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

(1) You must monitor or secure the valve or closure mechanism controlling the bypass line in a nondiverting position in such a way that the valve or closure mechanism cannot be opened without creating a record that the valve was opened. The method used to monitor or secure the valve or closure mechanism must meet one of the requirements specified in paragraphs (b)(1)(i) through (v) of this section.

(i) *Flow control position indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. The time of occurrence and flow control position must be recorded, as well as every time the flow direction is changed. The flow control position indicator must be installed at the entrance to any bypass line that could divert the emissions away from the add-on control device to the atmosphere.

(ii) *Car-seal or lock-and-key valve closures.* Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. You must visually inspect the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position, and the emissions are not diverted away from the add-on control device to the atmosphere.

(iii) *Valve closure monitoring.* Ensure that any bypass line valve is in the closed (nondiverting) position through monitoring of valve position at least once every 15 minutes. You must inspect the monitoring system at least once every month to verify that the monitor will indicate valve position.

(iv) *Automatic shutdown system.* Use an automatic shutdown system in which the coating operation is stopped when flow is diverted by the bypass line away from the add-on control device to the atmosphere when the coating operation is running. You must inspect the automatic shutdown system at least once every month to verify that it will detect diversions of flow and shut down the coating operation.

(v) *Flow direction indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow direction indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. Each time the flow direction changes, the next reading of the time of occurrence and flow direction must be recorded. The flow direction indicator must be installed in each bypass line or air makeup supply line that could divert the emissions away from the add-on control device to the atmosphere.

(2) If any bypass line is opened, you must include a description of why the bypass line was opened and the length of time it remained open in the semiannual compliance reports required in § 63.4520.

(c) *Thermal oxidizers and catalytic oxidizers.* If you are using a thermal oxidizer or catalytic oxidizer as an add-on control device (including those used with concentrators or with carbon adsorbers to treat desorbed concentrate streams), you must comply with the requirements in paragraphs (c)(1) through (3) of this section:

(1) For a thermal oxidizer, install a gas temperature monitor in the firebox of the thermal oxidizer or in the duct immediately downstream of the firebox before any substantial heat exchange occurs.

(2) For a catalytic oxidizer, install gas temperature monitors upstream and/or downstream of the catalyst bed as required in § 63.3967(b).

(3) For all thermal oxidizers and catalytic oxidizers, you must meet the requirements in paragraphs (a) and (c)(3)(i) through (v) of this section for each gas temperature monitoring device.

(i) Locate the temperature sensor in a position that provides a representative temperature.

(ii) Use a temperature sensor with a measurement sensitivity of 5 degrees Fahrenheit or 1.0 percent of the temperature value, whichever is larger.

(iii) Before using the sensor for the first time or when relocating or replacing the sensor, perform a validation check by comparing the sensor output to a calibrated temperature measurement device or by comparing the sensor output to a simulated temperature.

(iv) Conduct an accuracy audit every quarter and after every deviation. Accuracy audit methods include comparisons of sensor output to redundant temperature sensors, to calibrated temperature measurement devices, or to temperature simulation devices.

(v) Conduct a visual inspection of each sensor every quarter if redundant temperature sensors are not used.

(d) *Regenerative carbon adsorbers.* If you are using a regenerative carbon adsorber as an add-on control device, you must monitor the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle, the carbon bed temperature after each regeneration and cooling cycle, and comply with paragraphs (a)(3) through (5) and (d)(1) through (3) of this section.

(1) The regeneration desorbing gas mass flow monitor must be an integrating device having a measurement sensitivity of plus or minus 10 percent capable of recording the total regeneration desorbing gas mass flow for each regeneration cycle.

(2) The carbon bed temperature monitor must be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.

(3) For all regenerative carbon adsorbers, you must meet the requirements in paragraphs (c)(3)(i) through (v) of this section for each temperature monitoring device.

(e) *Condensers.* If you are using a condenser, you must monitor the condenser outlet (product side) gas temperature and comply with paragraphs (a) and (e)(1) and (2) of this section.

(1) The temperature monitor must provide a gas temperature record at least once every 15 minutes.

(2) For all condensers, you must meet the requirements in paragraphs (c)(3)(i) through (v) of this section for each temperature monitoring device.

(f) *Concentrators.* If you are using a concentrator, such as a zeolite wheel or rotary carbon bed concentrator, you must comply with the requirements in paragraphs (f)(1) and (2) of this section.

(1) You must install a temperature monitor in the desorption gas stream. The temperature monitor must meet the requirements in paragraphs (a) and (c)(3) of this section.

(2) You must install a device to monitor pressure drop across the zeolite wheel or rotary carbon bed. The pressure monitoring device must meet the requirements in paragraphs (a) and (g)(2) of this section.

(g) *Emission capture systems.* The capture system monitoring system must comply with the applicable requirements in paragraphs (g)(1) and (2) of this section.

(1) For each flow measurement device, you must meet the requirements in paragraphs (a) and (g)(1)(i) through (vii) of this section.

(i) Locate a flow sensor in a position that provides a representative flow measurement in the duct from each capture device in the emission capture system to the add-on control device.

(ii) Use a flow sensor with an accuracy of at least 10 percent of the flow.

(iii) Perform an initial sensor calibration in accordance with the manufacturer's requirements.

(iv) Perform a validation check before initial use or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values with electronic signal simulations or via relative accuracy testing.

(v) Conduct an accuracy audit every quarter and after every deviation. Accuracy audit methods include comparisons of sensor values with electronic signal simulations or via relative accuracy testing.

(vi) Perform leak checks monthly.

(vii) Perform visual inspections of the sensor system quarterly if there is no redundant sensor.

(2) For each pressure drop measurement device, you must comply with the requirements in paragraphs (a) and (g)(2)(i) through (vii) of this section.

(i) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure drop across each opening you are monitoring.

(ii) Use a pressure sensor with an accuracy of at least 0.5 inches of water column or 5 percent of the measured value, whichever is larger.

(iii) Perform an initial calibration of the sensor according to the manufacturer's requirements.

(iv) Conduct a validation check before initial operation or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.

(v) Conduct accuracy audits every quarter and after every deviation. Accuracy audits include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.

(vi) Perform monthly leak checks on pressure connections. A pressure of at least 1.0 inches of water column to the connection must yield a stable sensor result for at least 15 seconds.

(vii) Perform a visual inspection of the sensor at least monthly if there is no redundant sensor.

Other Requirements and Information

§ 63.4580 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (EPA), or a delegated authority such as your State, local, or tribal agency. If the Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are listed in paragraphs (c)(1) through (4) of this section:

(1) Approval of alternatives to the requirements in §§ 63.4481 through 4483 and §§ 63.4490 through 4493.

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.4581 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in 40 CFR 63.2, and in this section as follows:

Additive means a material that is added to a coating after purchase from a supplier (e.g., catalysts, activators, accelerators).

Add-on control means an air pollution control device, such as a thermal oxidizer or carbon adsorber, that reduces pollution in an air stream by destruction or removal before discharge to the atmosphere.

Adhesive, adhesive coating means any chemical substance that is applied for the purpose of bonding two surfaces together. Products used on humans and animals, adhesive tape, contact paper, or any other product with an adhesive incorporated onto or in an inert substrate shall not be considered adhesives under this subpart.

Assembled on-road vehicle coating means any coating operation in which coating is applied to the surface of some component or surface of a fully assembled motor vehicle or trailer intended for on-road use including, but not limited to, components or surfaces on automobiles and light-duty trucks that have been repaired after a collision or otherwise repainted, fleet delivery trucks, and motor homes and other recreational vehicles (including camping trailers and fifth wheels). Assembled on-road vehicle coating includes the concurrent coating of parts of the assembled on-road vehicle that are painted off-vehicle to protect systems, equipment, or to allow full coverage. Assembled on-road vehicle coating does not include surface coating operations that meet the applicability criteria of the Automobiles and Light-Duty Trucks NESHAP. Assembled on-road vehicle coating also does not include the use of adhesives, sealants, and caulks used in assembling on-road vehicles.

Automotive lamp coating means any coating operation in which coating is applied to the surface of some component of the body of an exterior automotive lamp, including the application of reflective argent coatings and clear topcoats. Exterior automotive lamps include head lamps, tail lamps, turn signals, brake lights, and side marker lights. Automotive lamp coating does not include any coating operation performed on an assembled on-road vehicle.

Capture device means a hood, enclosure, room, floor sweep, or other means of containing or collecting emissions and directing those emissions into an add-on air pollution control device.

Capture efficiency or capture system efficiency means the portion (expressed as a percentage) of the pollutants from an emission source that is delivered to an add-on control device.

Capture system means one or more capture devices intended to collect emissions generated by a coating operation in the use of coatings or cleaning materials, both at the point of application and at subsequent points where emissions from the coatings and cleaning materials occur, such as flashoff, drying, or curing. As used in this subpart, multiple capture devices that collect emissions generated by a coating operation are considered a single capture system.

Cleaning material means a solvent used to remove contaminants and other materials, such as dirt, grease, oil, and dried or wet coating (*e.g.*, depainting), from a substrate before or after coating application or from equipment associated with a coating operation, such as spray booths, spray guns, racks, tanks, and hangers. Thus, it includes any cleaning material used on substrates or equipment or both.

Coating means a material applied to a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, paints, sealants, liquid plastic coatings, caulks, inks, adhesives, and maskants. Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances, or paper film or plastic film which may be pre-coated with an adhesive by the film manufacturer, are not considered coatings for the purposes of this subpart. A liquid plastic coating means a coating made from fine particle-size polyvinyl chloride (PVC) in solution (also referred to as a plastisol).

Coating operation means equipment used to apply cleaning materials to a substrate to prepare it for coating application (surface preparation) or to remove dried coating; to apply coating to a substrate (coating application) and to dry or cure the coating after application; or to clean coating operation equipment (equipment cleaning). A single coating operation may include any combination of these types of equipment, but always includes at least the point at which a given quantity of coating or cleaning material is applied to a given part and all subsequent points in the affected source where organic HAP are emitted from the specific quantity of coating or cleaning material on the specific part. There may be multiple coating operations in an affected source. Coating application with handheld, non-refillable aerosol containers, touch-up markers, or marking pens is not a coating operation for the purposes of this subpart.

Coatings solids means the nonvolatile portion of the coating that makes up the dry film.

Continuous parameter monitoring system (CPMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this subpart, used to sample, condition (if applicable), analyze, and provide a record of coating operation, or capture system, or add-on control device parameters.

Controlled coating operation means a coating operation from which some or all of the organic HAP emissions are routed through an emission capture system and add-on control device.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart including but not limited to, any emission limit or operating limit or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limit, or operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Emission limitation means the aggregate of all requirements associated with a compliance option including emission limit, operating limit, work practice standard, etc.

Enclosure means a structure that surrounds a source of emissions and captures and directs the emissions to an add-on control device.

Exempt compound means a specific compound that is not considered a VOC due to negligible photochemical reactivity. The exempt compounds are listed in 40 CFR 51.100(s).

Facility maintenance means the routine repair or renovation (including the surface coating) of the tools, equipment, machinery, and structures that comprise the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity.

General use coating means any coating operation that is not an automotive lamp, TPO, or assembled on-road vehicle coating operation.

Hobby shop means any surface coating operation, located at an affected source, that is used exclusively for personal, noncommercial purposes by the affected source's employees or assigned personnel.

Manufacturer's formulation data means data on a material (such as a coating) that are supplied by the material manufacturer based on knowledge of the ingredients used to manufacture that material, rather than based on testing of the material with the test methods specified in § 63.4541. Manufacturer's formulation data may include, but are not limited to, information on density, organic HAP content, volatile organic matter content, and coating solids content.

Mass fraction of coating solids means the ratio of the mass of solids (also known as the mass of nonvolatiles) to the mass of a coating in which it is contained; kg of coating solids per kg of coating.

Mass fraction of organic HAP means the ratio of the mass of organic HAP to the mass of a material in which it is contained, expressed as kg of organic HAP per kg of material.

Month means a calendar month or a pre-specified period of 28 days to 35 days to allow for flexibility in recordkeeping when data are based on a business accounting period.

Non-HAP coating means, for the purposes of this subpart, a coating that contains no more than 0.1 percent by mass of any individual organic HAP that is an OSHA-defined carcinogen as specified in 29 CFR 1910.1200(d)(4) and no more than 1.0 percent by mass for any other individual HAP.

Organic HAP content means the mass of organic HAP emitted per mass of coating solids used for a coating calculated using Equation 1 of § 63.4541. The organic HAP content is determined for the coating in the condition it is in when received from its manufacturer or supplier and does not account for any alteration after receipt. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, organic HAP content is the mass of organic HAP that is emitted, rather than the organic HAP content of the coating as it is received.

Permanent total enclosure (PTE) means a permanently installed enclosure that meets the criteria of Method 204 of appendix M, 40 CFR part 51, for a PTE and that directs all the exhaust gases from the enclosure to an add-on control device.

Personal watercraft means a vessel (boat) which uses an inboard motor powering a water jet pump as its primary source of motive power and which is designed to be operated by a person or persons sitting, standing, or kneeling on the vessel, rather than in

the conventional manner of sitting or standing inside the vessel.

Plastic part and product means any piece or combination of pieces of which at least one has been formed from one or more resins. Such pieces may be solid, porous, flexible or rigid.

Protective oil means an organic material that is applied to metal for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oil includes, but is not limited to, lubricating oils, evaporative oils (including those that evaporate completely), and extrusion oils.

Reactive adhesive means adhesive systems composed, in part, of volatile monomers that react during the adhesive curing reaction, and, as a result, do not evolve from the film during use. These volatile components instead become integral parts of the adhesive through chemical reaction. At least 70 percent of the liquid components of the system, excluding water, react during the process.

Research or laboratory facility means a facility whose primary purpose is for research and development of new processes and products, that is conducted under the close supervision of technically trained personnel, and is not engaged in the manufacture of final or intermediate products for commercial purposes, except in a *de minimis* manner.

Responsible official means responsible official as defined in 40 CFR 70.2.

Startup, initial means the first time equipment is brought online in a facility.

Surface preparation means use of a cleaning material on a portion of or all of a substrate. This includes use of a cleaning material to remove dried coating, which is sometimes called depainting.

Temporary total enclosure means an enclosure constructed for the purpose of measuring the capture efficiency of pollutants emitted from a given source as defined in Method 204 of appendix M, 40 CFR part 51.

Thermoplastic olefin (TPO) means polyolefins (blends of polypropylene, polyethylene and its copolymers). This also includes blends of TPO with polypropylene and polypropylene alloys including, but not limited to, thermoplastic elastomer (TPE), TPE polyurethane (TPU), TPE polyester (TPEE), TPE polyamide (TPAE), and thermoplastic elastomer polyvinyl chloride (TPVC).

Thermoplastic olefin (TPO) coating means any coating operation in which the coatings are components of a system of coatings applied to a TPO substrate, including adhesion promoters, primers, color coatings, clear coatings and topcoats. Thermoplastic olefin coating does not include the coating of TPO substrates on assembled on-road vehicles.

Thinner means an organic solvent that is added to a coating after the coating is received from the supplier.

Total volatile hydrocarbon (TVH) means the total amount of nonaqueous volatile organic matter determined according to Methods 204 and 204A through 204F of appendix M to 40 CFR part 51 and substituting the term TVH each place in the methods where the term VOC is used. The TVH includes both VOC and non-VOC.

Uncontrolled coating operation means a coating operation from which none of the organic HAP emissions are routed through an emission capture system and add-on control device.

Volatile organic compound (VOC) means any compound defined as VOC in 40 CFR 51.100(s).

Wastewater means water that is generated in a coating operation and is collected, stored, or treated prior to being discarded or discharged.

Tables to Subpart PPPP of Part 63

If you are required to comply with operating limits by § 63.4491(c), you must comply with the applicable operating limits in the following table:

TABLE 1 TO SUBPART PPPP OF PART 63—OPERATING LIMITS IF USING THE EMISSION RATE WITH ADD-ON CONTROLS OPTION

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
1. Thermal oxidizer	a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to § 63.4567(a).	i. Collecting the combustion temperature data according to § 63.4568(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average combustion temperature at or above the temperature limit.
2. Catalytic oxidizer	a. The average temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to § 63.4567(b); and either	i. Collecting the temperature data according to § 63.4568(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature before the catalyst bed at or above the temperature limit.
	b. Ensure that the average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to § 63.4567(b)(2); or	i. Collecting the temperature data according to § 63.4568(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature difference at or above the temperature difference limit.

TABLE 1 TO SUBPART PPPP OF PART 63—OPERATING LIMITS IF USING THE EMISSION RATE WITH ADD-ON CONTROLS OPTION—Continued

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
	c. Develop and implement an inspection and maintenance plan according to § 63.4567(b)(4).	i. Maintaining an up-to-date inspection and maintenance plan, records of annual catalyst activity checks, records of monthly inspections of the oxidizer system, and records of the annual internal inspections of the catalyst bed. If a problem is discovered during a monthly or annual inspection required by § 63.4567(b)(4), you must take corrective action as soon as practicable consistent with the manufacturer's recommendations.
3. Regenerative carbon adsorber	a. The total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each carbon bed regeneration cycle must not fall below the total regeneration desorbing gas mass flow limit established according to § 63.4567(c); and	i. Measuring the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle according to § 63.4568(d); and ii. Maintaining the total regeneration desorbing gas mass flow at or above the mass flow limit.
	b. The temperature of the carbon bed, after completing each regeneration and any cooling cycle, must not exceed the carbon bed temperature limit established according to § 63.4567(c).	i. Measuring the temperature of the carbon bed after completing each regeneration and any cooling cycle according to § 63.4568(d); and ii. Operating the carbon beds such that each carbon bed is not returned to service until completing each regeneration and any cooling cycle until the recorded temperature of the carbon bed is at or below the temperature limit.
4. Condenser	a. The average condenser outlet (product side) gas temperature in any 3-hour period must not exceed the temperature limit established according to § 63.4567(d).	i. Collecting the condenser outlet (product side) gas temperature according to § 63.4568(e); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average gas temperature at the outlet at or below the temperature limit.
5. Concentrators, including zeolite wheels and rotary carbon adsorbers.	a. The average gas temperature of the desorption concentrate stream in any 3-hour period must not fall below the limit established according to § 63.4567(e); and	i. Collecting the temperature data according to § 63.4568(f); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature at or above the temperature limit.
	b. The average pressure drop of the dilute stream across the concentrator in any 3-hour period must not fall below the limit established according to § 63.4567(e).	i. Collecting the pressure drop data according to § 63.4568(f); ii. Reducing the pressure drop data to 3-hour block averages; and iii. Maintaining the 3-hour average pressure drop at or above the pressure drop limit.
6. Emission capture system that is a PTE according to § 63.4565(a).	a. The direction of the air flow at all times must be into the enclosure; and either	i. Collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to § 63.4568(g)(1) or the pressure drop across the enclosure according to § 63.4568(g)(2); and ii. Maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.
	b. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or	i. *See* items 6.a.i and 6.a.ii.
	c. The pressure drop across the enclosure must be at least 0.007 inch H_2O, as established in Method 204 of appendix M to 40 CFR part 51.	i. *See* items 6.a.i and 6.a.ii.

TABLE 1 TO SUBPART PPPP OF PART 63—OPERATING LIMITS IF USING THE EMISSION RATE WITH ADD-ON CONTROLS OPTION—Continued

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
7. Emission capture system that is not a PTE according to § 63.4565(a).	a. The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to § 63.4567(f).	i. Collecting the gas volumetric flow rate or duct static pressure for each capture device according to § 63.4568(g); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limit.

You must comply with the applicable General Provisions requirements according to the following table:

TABLE 2 TO SUBPART PPPP OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART PPPP OF PART 63

Citation	Subject	Applicable to subpart PPPP	Explanation
§ 63.1(a)(1)–(14)	General Applicability	Yes.	
§ 63.1(b)(1)–(3)	Initial Applicability Determination	Yes	Applicability to subpart PPPP is also specified in § 63.4481.
§ 63.1(c)(1)	Applicability After Standard Established	Yes.	
§ 63.1(c)(2)–(3)	Applicability of Permit Program for Area Sources.	No	Area sources are not subject to subpart PPPP.
§ 63.1(c)(4)–(5)	Extensions and Notifications	Yes.	
§ 63.1(e)	Applicability of Permit Program Before Relevant Standard is Set.	Yes.	
§ 63.2	Definitions	Yes	Additional definitions are specified in § 63.4581.
§ 63.3(a)–(c)	Units and Abbreviations	Yes.	
§ 63.4(a)(1)–(5)	Prohibited Activities	Yes.	
§ 63.4(b)–(c)	Circumvention/Severability	Yes.	
§ 63.5(a)	Construction/Reconstruction	Yes.	
§ 63.5(b)(1)–(6)	Requirements for Existing, Newly Constructed, and Reconstructed Sources.	Yes.	
§ 63.5(d)	Application for Approval of Construction/Reconstruction.	Yes.	
§ 63.5(e)	Approval of Construction/Reconstruction	Yes.	
§ 63.5(f)	Approval of Construction/Reconstruction Based on Prior State Review.	Yes.	
§ 63.6(a)	Compliance With Standards and Maintenance Requirements—Applicability.	Yes.	
§ 63.6(b)(1)–(7)	Compliance Dates for New and Reconstructed Sources.	Yes	Section 63.4483 specifies the compliance dates.
§ 63.6(c)(1)–(5)	Compliance Dates for Existing Sources	Yes	Section 63.4483 specifies the compliance dates.
§ 63.6(e)(1)–(2)	Operation and Maintenance	Yes.	
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction Plan	Yes	Only sources using an add-on control device to comply with the standard must complete startup, shutdown, and malfunction plans.
§ 63.6(f)(1)	Compliance Except During Startup, Shutdown, and Malfunction.	Yes	Applies only to sources using an add-on control device to comply with the standard.
§ 63.6(f)(2)–(3)	Methods for Determining Compliance	Yes.	
§ 63.6(g)(1)–(3)	Use of an Alternative Standard	Yes.	
§ 63.6(h)	Compliance With Opacity/Visible Emission Standards.	No	Subpart PPPP does not establish opacity standards and does not require continuous opacity monitoring systems (COMS).
§ 63.6(i)(1)–(16)	Extension of Compliance	Yes.	
§ 63.6(j)	Presidential Compliance Exemption	Yes.	
§ 63.7(a)(1)	Performance Test Requirements—Applicability.	Yes	Applies to all affected sources. Additional requirements for performance testing are specified in §§ 63.4564, 63.4565, and 63.4566.

TABLE 2 TO SUBPART PPPP OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART PPPP OF PART 63—Continued

Citation	Subject	Applicable to subpart PPPP	Explanation
§63.7(a)(2)	Performance Test Requirements—Dates	Yes	Applies only to performance tests for capture system and control device efficiency at sources using these to comply with the standards. Section 63.4560 specifies the schedule for performance test requirements that are earlier than those specified in §63.7(a)(2).
§63.7(a)(3)	Performance Tests Required By the Administrator.	Yes.	
§63.7(b)–(e)	Performance Test Requirements—Notification, Quality Assurance, Facilities Necessary for Safe Testing, Conditions During Test.	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards.
§63.7(f)	Performance Test Requirements—Use Alternative Test Method.	Yes	Applies to all test methods except those of used to determine capture system efficiency.
§63.7(g)–(h)	Performance Test Requirements—Data Analysis, Recordkeeping, Reporting, Waiver of Test.	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards.
§63.8(a)(1)–(3)	Monitoring Requirements—Applicability	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standards. Additional requirements for monitoring are specified in §63.4568.
§63.8(a)(4)	Additional Monitoring Requirements	No	Subpart PPPP does not have monitoring requirements for flares.
§63.8(b)	Conduct of Monitoring	Yes.	
§63.8(c)(1)–(3)	Continuous Monitoring Systems (CMS) Operation and Maintenance.	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for CMS operations and maintenance are specified in §63.4568.
§63.8(c)(4)	CMS	No	Section 63.4568 specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply.
§63.8(c)(5)	COMS	No	Subpart PPPP does not have opacity or visible emission standards.
§63.8(c)(6)	CMS Requirements	No	Section 63.4568 specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply.
§63.8(c)(7)	CMS Out-of-Control Periods	Yes.	
§63.8(c)(8)	CMS Out-of-Control Periods and Reporting	No	Section 63.4520 requires reporting of CMS out-of-control periods.
§63.8(d)–(e)	Quality Control Program and CMS Performance Evaluation.	No	Subpart PPPP does not require the use of continuous emissions monitoring systems.
§63.8(f)(1)–(5)	Use of an Alternative Monitoring Method	Yes.	
§63.8(f)(6)	Alternative to Relative Accuracy Test	No	Subpart PPPP does not require the use of continuous emissions monitoring systems.
§63.8(g)(1)–(5)	Data Reduction	No	Sections 63.4567 and 63.4568 specify monitoring data reduction.
§63.9(a)–(d)	Notification Requirements	Yes.	
§63.9(e)	Notification of Performance Test	Yes	Applies only to capture system and add-on control device performance tests at sources using these to comply with the standards.
§63.9(f)	Notification of Visible Emissions/Opacity Test	No	Subpart PPPP does not have opacity or visible emission standards.
§63.9(g)(1)–(3)	Additional Notifications When Using CMS	No	Subpart PPPP does not require the use of continuous emissions monitoring systems.
§63.9(h)	Notification of Compliance Status	Yes	Section 63.4510 specifies the dates for submitting the notification of compliance status.
§63.9(i)	Adjustment of Submittal Deadlines	Yes.	
§63.9(j)	Change in Previous Information	Yes.	

TABLE 2 TO SUBPART PPPP OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART PPPP OF PART 63—Continued

Citation	Subject	Applicable to subpart PPPP	Explanation
§63.10(a)	Recordkeeping/Reporting—Applicability and General Information.	Yes.	
§63.10(b)(1)	General Recordkeeping Requirements	Yes	Additional requirements are specified in §§63.4530 and 63.4531.
§63.10(b)(2) (i)–(v)	Recordkeeping Relevant to Startup, Shutdown, and Malfunction Periods and CMS.	Yes	Requirements for startup, shutdown, and malfunction records only apply to add-on control devices used to comply with the standards.
§63.10(b)(2) (vi)–(xi)		Yes.	
§63.10(b)(2) (xii)	Records	Yes.	
§63.10(b)(2) (xiii)		No	Subpart PPPP does not require the use of continuous emissions monitoring systems.
§63.10(b)(2) (xiv)		Yes.	
§63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations.	Yes.	
§63.10(c)(1)–(6)	Additional Recordkeeping Requirements for Sources with CMS.	Yes.	
§63.10(c)(7)–(8)		No	The same records are required in §63.4520(a)(7).
§63.10(c)(9)–(15)		Yes.	
§63.10(d)(1)	General Reporting Requirements	Yes	Additional requirements are specified in §63.4520.
§63.10(d)(2)	Report of Performance Test Results	Yes	Additional requirements are specified in §63.4520(b).
§63.10(d)(3)	Reporting Opacity or Visible Emissions Observations.	No	Subpart PPPP does not require opacity or visible emissions observations.
§63.10(d)(4)	Progress Reports for Sources With Compliance Extensions.	Yes.	
§63.10(d)(5)	Startup, Shutdown, and Malfunction Reports	Yes	Applies only to add-on control devices at sources using these to comply with the standards.
§63.10(e)(1)–(2)	Additional CMS Reports	No	Subpart PPPP does not require the use of continuous emissions monitoring systems.
§63.10(e)(3)	Excess Emissions/CMS Performance Reports	No	Section 63.4520(b) specifies the contents of periodic compliance reports.
§63.10(e)(4)	COMS Data Reports	No	Subpart PPPP does not specify requirements for opacity or COMS.
§63.10(f)	Recordkeeping/Reporting Waiver	Yes.	
§63.11	Control Device Requirements/Flares	No	Subpart PPPP does not specify use of flares for compliance.
§63.12	State Authority and Delegations	Yes.	
§63.13	Addresses	Yes.	
§63.14	Incorporation by Reference	Yes.	
§63.15	Availability of Information/Confidentiality	Yes.	

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data and which match either the solvent blend name or the chemical abstract series (CAS) number. If a solvent blend matches both the name and CAS number for an entry, that entry's organic HAP mass fraction must be used for that solvent blend. Otherwise, use the organic HAP mass fraction for the entry matching either the solvent blend name or CAS number, or use the organic HAP mass fraction from table 4 to this subpart if neither the name or CAS number match.

TABLE 3 TO SUBPART PPPP OF PART 63—DEFAULT ORGANIC HAP MASS FRACTION FOR SOLVENTS AND SOLVENT BLENDS

Solvent/solvent blend	CAS. No.	Average organic HAP mass fraction	Typical organic HAP, percent by mass
1. Toluene	108–88–3	1.0	Toluene.
2. Xylene(s)	1330–20–7	1.0	Xylenes, ethylbenzene.
3. Hexane	110–54–3	0.5	n-hexane.
4. n-Hexane	110–54–3	1.0	n-hexane.
5. Ethylbenzene	100–41–4	1.0	Ethylbenzene.
6. Aliphatic 140		0	None.
7. Aromatic 100		0.02	1% xylene, 1% cumene.

TABLE 3 TO SUBPART PPPP OF PART 63—DEFAULT ORGANIC HAP MASS FRACTION FOR SOLVENTS AND SOLVENT BLENDS—Continued

Solvent/solvent blend	CAS. No.	Average organic HAP mass fraction	Typical organic HAP, percent by mass
8. Aromatic 150	.....	0.09	Naphthalene.
9. Aromatic naphtha	64742–95–6	0.02	1% xylene, 1% cumene.
10. Aromatic solvent	64742–94–5	0.1	Naphthalene.
11. Exempt mineral spirits	8032–32–4	0	None.
12. Ligroines (VM & P)	8032–32–4	0	None.
13. Lactol spirits	64742–89–6	0.15	Toluene.
14. Low aromatic white spirit	64742–82–1	0	None.
15. Mineral spirits	64742–88–7	0.01	Xylenes.
16. Hydrotreated naphtha	64742–48–9	0	None.
17. Hydrotreated light distillate	64742–47–8	0.001	Toluene.
18. Stoddard solvent	8052–41–3	0.01	Xylenes.
19. Super high-flash naphtha	64742–95–6	0.05	Xylenes.
20. Varsol® solvent	8052–49–3	0.01	0.5% xylenes, 0.5% ethylbenzene.
21. VM & P naphtha	64742–89–8	0.06	3% toluene, 3% xylene.
22. Petroleum distillate mixture	68477–31–6	0.08	4% naphthalene, 4% biphenyl.

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data.

TABLE 4 TO SUBPART PPPP OF PART 63— DEFAULT ORGANIC HAP MASS FRACTION FOR PETROLEUM SOLVENT GROUPS[a]

Solvent type	Average organic HAP mass fraction	Typical organic HAP, percent by mass
Aliphatic[b]	0.03	1% Xylene, 1% Toluene, and 1% Ethylbenzene.
Aromatic[c]	0.06	4% Xylene, 1% Toluene, and 1% Ethylbenzene.

[a] Use this table only if the solvent blend does not match any of the solvent blends in Table 3 to this subpart by either solvent blend name or CAS number and you only know whether the blend is aliphatic or aromatic.

[b] Mineral Spirits 135, Mineral Spirits 150 EC, Naphtha, Mixed Hydrocarbon, Aliphatic Hydrocarbon, Aliphatic Naphtha, Naphthol Spirits, Petroleum Spirits, Petroleum Oil, Petroleum Naphtha, Solvent Naphtha, Solvent Blend.

[c] Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

Appendix A to Subpart PPPP of Part 63—Determination of Weight Volatile Matter Content and Weight Solids Content of Reactive Adhesives

1.0 Applicability and Principle

1.1 *Applicability:* This method applies to the determination of weight volatile matter content and weight solids content for most one-part or multiple-part reactive adhesives. Reactive adhesives are composed, in large part, of monomers that react during the adhesive curing reaction, and, as a result, do not volatilize. The monomers become integral parts of the cured adhesive through chemical reaction. At least 70 weight percent of the system, excluding water and non-volatile solids such as fillers, react during the process. This method is not appropriate for cyanoacrylates. For cyanoacrylates, South Coast Air Quality Management District Test Method 316B should be used. This method is not appropriate for one-part moisture cure urethane adhesives or for silicone adhesives. For one-part moisture cure urethane adhesives and for silicone adhesives, EPA Method 24 should be used.

1.2 Principle: One-part and multiple-part reactive adhesives undergo a reactive conversion from liquid to solid during the application and assembly process. Reactive adhesives are applied to a single surface, but then are usually quickly covered with another mating surface to achieve a bonded assembly. The monomers employed in such systems typically react and are converted to non-volatile solids. If left uncovered, as in a Method 24 (ASTM D2369) test, the reaction is inhibited by the presence of oxygen and volatile loss of the reactive components competes more heavily with the cure reaction. If this were to happen under normal use conditions, the adhesives would not provide adequate performance. This method minimizes this undesirable deterioration of the adhesive performance.

2.0 Materials and Apparatus

2.1 Aluminum foil, aluminum sheet, non-leaching plastic film or non-leaching plastic sheet, approximately 3 inches by 3 inches. Precondition the foil, film, or sheet for 30 minutes in an oven at 110 ± 5 degrees Celsius and store in a desiccator prior to use. Use tongs or rubber gloves or both to handle the foil, film, or sheet.

2.2 Flat, rigid support panels slightly larger than the foil, film, or sheet. Polypropylene with a minimum thickness of ⅛ inch is recommended for the support panels. Precondition the support panels for 30 minutes in an oven at 110 ± 5 degrees Celsius and store in a desiccator prior to use. Use tongs or rubber gloves or both to handle the support panels.

2.3 Aluminum spacers, ⅛ inch thick. Precondition the spacers for 30 minutes in an oven at 110 ± 5 degrees Celsius and store in a desiccator prior to use. Use tongs or rubber gloves or both to handle the spacers.

2.4 Forced draft oven, type IIA or IIB as specified in ASTM E145–94 (Reapproved 2001), "Standard Specification for Gravity-Convection and Forced-Ventilation Ovens" (incorporated by reference, see § 63.14).

2.5 Electronic balance capable of weighing to ±0.0001 grams (0.1 mg).

2.6 Flat bottom weight (approximately 3 lbs) or clamps.

Material and Apparatus Notes

1—The foil, film, or sheet should be thick or rigid enough so that it can be easily handled in the test procedure.

3.0 Procedure

3.1 Two procedures are provided. In Procedure A the initial specimen weight is determined by weighing the foil, film, or sheet before and after the specimen is dispensed onto the foil, film, or sheet. In Procedure B the initial specimen weight is determined by weighing the adhesive cartridge (kit) before and after the specimen is dispensed.

3.2 At least four test specimens should be run for each test material. Run the test at room temperature, 74 degrees Fahrenheit (23 degrees Celsius).

Procedure A

1. Zero electronic balance.
2. Place 2 pieces of aluminum foil (or aluminum sheet, plastic film, or plastic sheet) on scale.
3. Record weight of aluminum foils. (A).
4. Tare balance.
5. Remove top piece of aluminum foil.
6. Dispense a 10 to 15 gram specimen of premixed adhesive onto bottom piece of aluminum foil. Place second piece of aluminum foil on top of the adhesive specimen to make a sandwich.
7. Record weight of sandwich (specimen and aluminum foils). (B).
8. Remove sandwich from scale, place sandwich between two support panels with aluminum spacers at the edges of the support panels to make a supported sandwich. The spacers provide a standard gap. Take care to mate the edges.
9. Place the supported sandwich on a flat surface.
10. Place the weight on top of the supported sandwich to spread the adhesive specimen to a uniform thickness within the sandwich. Check that no adhesive squeezes out from between the pieces of aluminum foil or through tears in the aluminum foil.
11. Allow to cure 24 hours.
12. Remove the sandwich from between the support panels. Record the weight of the sandwich. This is referred to as the 24 hr weight. (C).
13. Bake sandwich at 110 degrees Celsius for 1 hour.
14. Remove sandwich from the oven, place immediately in a desiccator, and cool to room temperature. Record post bake sandwich weight. (D).

Procedure B

1. Zero electronic balance.
2. Place two pieces of aluminum foil (or aluminum sheet, plastic film, or plastic sheet) on scale.
3. Record weight of aluminum foils. (A).
4. Tare balance.
5. Place one support panel on flat surface. Place first piece of aluminum foil on top of this support panel.
6. Record the weight of a pre-mixed sample of adhesive in its container. If dispensing the adhesive from a cartridge (kit), record the weight of the cartridge (kit) plus any dispensing tips. (F).
7. Dispense a 10 to 15 gram specimen of mixed adhesive onto the first piece of aluminum foil. Place second piece of aluminum foil on top of the adhesive specimen to make a sandwich.
8. Record weight of the adhesive container. If dispensing the adhesive from a cartridge (kit), record the weight of the cartridge (kit) plus any dispensing tips. (G).
9. Place the aluminum spacers at the edges of the bottom support panel polypropylene sheet. The spacers provide a standard gap.
10. Place the second support panel on top of the assembly to make a supported sandwich. Take care to mate the edges.
11. Place the supported sandwich on a flat surface.
12. Place the weight on top of the supported sandwich to spread the adhesive specimen to a uniform thickness within the sandwich. Check that no adhesive squeezes out from between the pieces of aluminum foil or through tears in the aluminum foil.
13. Allow to cure 24 hours.
14. Remove the sandwich from between the support panels. Record the weight of the sandwich. This is referred to as the 24 hr weight. (C).
15. Bake sandwich at 110 degrees Celsius for 1 hour.
16. Remove sandwich from the oven, place immediately in a desiccator, and cool to room temperature.
17. Record post-bake sandwich weight. (D).

Procedural Notes

1—The support panels may be omitted if the aluminum foil (or aluminum sheet, plastic film, or plastic sheet) will not tear and the adhesive specimen will spread to a uniform thickness within the sandwich when the flat weight is placed directly on top of the sandwich.

2—Clamps may be used instead of a flat bottom weight to spread the adhesive specimen to a uniform thickness within the sandwich.

3—When dispensing from a static mixer, purging is necessary to ensure uniform, homogeneous specimens. The weighing in Procedure B, Step 6 must be performed after any purging.

4—Follow the adhesive manufacturer's directions for mixing and for dispensing from a cartridge (kit).

4.0 Calculations

4.1 The total weight loss from curing and baking of each specimen is used to determine the weight percent volatile matter content of that specimen

Procedure A

Weight of original specimen (S) = (B) – (A)
Weight of post-bake specimen (P) = (D) – (A)
Total Weight Loss (L) = (S) – (P)

Procedure B

Weight of original specimen (S) = (F) – (G)
Weight of post-bake specimen (P) = (D) – (A)
Total Weight Loss (L) = (S) – (P)

Procedure A and Procedure B

Weight Percent Volatile Matter Content

(V) = [(Total weight loss)/(Initial specimen weight)] × 100 = [(L)/(S)] × 100

4.2 The weight volatile matter content of a material is the average of the weight volatile matter content of each specimen of that material. For example, if four specimens of a material were tested, then the weight percent volatile matter content for that material is:

V = [V1 + V2 + V3 + V4]/4
Where:
Vi = the weight percent volatile matter content of specimen i of the material.

4.3 The weight percent solids content of the material is calculated from the weight percent volatile content of the material.

Weight Percent Solids Content (N) = 100 – (V)

Calculation Notes

1—The weight loss during curing and the weight loss during baking may be calculated separately. These values may be useful for identifying sources of variation in the results obtained for different specimens of the same material.

2—For both Procedure A and Procedure B, the weight loss during curing is (S) – [(C) – (A)] and the weight loss during baking is (C) – (D).

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Part II

Environmental Protection Agency

40 CFR Parts 63, 264 and 265
National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 63, 264 and 265

[OAR–2002–0093; FRL–7630–9]

RIN 2060–AG99

National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national emission standards for hazardous air pollutants (NESHAP) for automobile and light-duty truck surface coating operations located at major sources of hazardous air pollutants (HAP). The final rule implements section 112(d) of the Clean Air Act (CAA) by requiring these operations to meet HAP emission standards reflecting the application of the maximum achievable control technology (MACT). The final rule will protect air quality and promote the public health by reducing emissions of HAP from facilities in the automobile and light-duty truck surface coating source category. The primary HAP emitted by these operations are toluene, xylene, glycol ethers, methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), ethylbenzene, and methanol. The final standards are expected to reduce nationwide organic HAP emissions from major sources in this source category by approximately 60 percent.

This action also amends the Surface Coating of Miscellaneous Metal Parts and Products NESHAP (40 CFR part 63, subpart MMMM) and the Surface Coating of Plastic Parts and Products NESHAP (40 CFR part 63, subpart PPPP) to clarify the interaction between these rules and the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII).

Additionally, this action amends the Resource Conservation and Recovery Act (RCRA) Air Emission Standards for Equipment Leaks at 40 CFR parts 264 and 265, subparts BB, for owners and operators of hazardous waste treatment, storage, and disposal facilities to exempt air emissions from certain activities covered by the final NESHAP from these RCRA standards.

DATES: The final rule is effective June 25, 2004. The incorporation by reference of certain publications listed in the final rule is approved by the Director of the Federal Register as of June 25, 2004.

ADDRESSES: *Docket.* Docket ID No. OAR–2002–0093 and Docket ID No. A–2001–22 are located at the EPA Docket Center, EPA West (6102T), 1301 Constitution Avenue, NW., Room B–102, Washington, DC 20460.

FOR FURTHER INFORMATION CONTACT: Mr. David Salman, Coatings and Consumer Products Group, Emission Standards Division (C539–03), U.S. EPA, Research Triangle Park, NC 27711; telephone number (919) 541–0859; facsimile number (919) 541–5689; electronic mail address: *salman.dave@epa.gov.*

SUPPLEMENTARY INFORMATION: *Regulated Entities.* Categories and entities potentially regulated by this action are listed by North American Industrial Classification System (NAICS) codes listed in Table 1.

TABLE 1.—CATEGORIES AND ENTITIES POTENTIALLY REGULATED BY THE FINAL STANDARDS

Category	NAICS	Examples of potentially regulated entities
Industry	336111, 336112, 336211	Automobile and light-duty truck assembly plants, producers of automobile and light-duty truck bodies.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your coating operation is regulated by this action, you should examine the applicability criteria in § 63.3081 of the final rule.

Docket. The EPA has established an official public docket for this action under Docket ID No. OAR–2002–0093 and Docket ID No. A–2001–22. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. All items may not be listed under both docket numbers, so interested parties should inspect both docket numbers to ensure that they have received all materials relevant to the final rule. Although a part of the official docket, the public docket does not include Confidential Business Information or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the EPA Docket Center, EPA West, Room B–102, 1301 Constitution Avenue, NW., Washington, DC 20460. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566–1744, and the telephone number for the Docket is (202) 566–1742. A reasonable fee may be charged for copying docket materials.

Electronic Docket Access. You may access this **Federal Register** document electronically through the EPA Internet under the "**Federal Register**" listings at *http://www.epa.gov/fedrgstr.*

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility identified above. Once in the system, select "search," then key in the appropriate docket identification number.

WorldWide Web (WWW). In addition to being available in the docket, an electronic copy of the final rule will be available on the WWW. Following the Administrator's signature, a copy of the final rule will be posted at *http://www.epa.gov/ttn/oarpg* on EPA's Technology Transfer Network (TTN) policy and guidance page for newly proposed or promulgated rules. The TTN provides information and technology exchange in various areas of air pollution control. If more information regarding the TTN is needed, call the TTN HELP line at (919) 541–5384.

Judicial Review. Under section 307(b)(1) of the CAA, judicial review of the final rule is available only by the filing of a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by June 25, 2004. Under section 307(d)(7)(B) of the CAA, only an objection to the rule that was

raised with reasonable specificity during the period for public comment can be raised during judicial review. Under section 307(b)(2) of the CAA, the requirements established by the final rule may not be challenged separately in any civil or criminal proceedings brought by EPA to enforce these requirements.

Outline: The following outline is provided to aid in reading the preamble to the final rule:

I. Background
A. What Is the Source of Authority for Development of NESHAP?
B. What Criteria are Used in the Development of NESHAP?
C. What are the Primary Sources of Emissions and What are the Emissions?
D. What are the Health Effects Associated with Organic HAP Emissions from the Surface Coating of Automobiles and Light-duty Trucks?
II. Summary of the Final Rule
A. What Source Categories are Affected by the Final Rule?
B. What is the Relationship to Other Rules?
C. What is the Affected Source?
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I. Background

A. What Is the Source of Authority for Development of NESHAP?

Section 112 of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. The surface coating of automobiles and light-duty trucks category of major sources was listed on July 16, 1992 (57 FR 31576). Major sources of HAP are those that emit or have the potential to emit equal to or greater than 9.1 megagrams per year (Mg/yr) (10 tons per year (tpy)) of any one HAP or 22.7 Mg/yr (25 tpy) of any combination of HAP.

B. What Criteria Are Used in the Development of NESHAP?

Section 112(c)(2) of the CAA requires that we establish NESHAP for the control of HAP from both new and existing major sources, based upon the criteria set out in section 112(d). The CAA requires the NESHAP to reflect the maximum degree of reduction in emissions of HAP that is achievable, taking into consideration the cost of achieving the emission reduction, any non-air quality health and environmental impacts, and energy requirements. This level of control is commonly referred to as MACT.

The MACT floor is the minimum control level allowed for NESHAP and is defined under section 112(d)(3) of the CAA. In essence, the MACT floor ensures that the standard is set at a level that assures that all major sources achieve the level of control at least as stringent as that already achieved by the better-controlled and lower-emitting sources in each source category or subcategory. For new sources, the MACT floor cannot be less stringent than the emission control that is achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than standards for new sources, but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources in the category or subcategory (or the best-performing five sources for categories or subcategories with fewer than 30 sources).

In developing the final NESHAP, we considered control options that are more stringent than the MACT floor, taking into account consideration of the cost of achieving the emission reduction, any non-air quality health and environmental impacts, and energy requirements. In the final rule, EPA is promulgating standards for both existing and new sources consistent with these statutory requirements.

C. What Are the Primary Sources of Emissions and What Are the Emissions?

HAP emission sources. Emissions from coating application, drying, and curing account for most of the HAP emissions from automobile and light-duty truck surface coating operations. The remaining emissions are primarily from cleaning of booths and application equipment and purging of spray equipment. Mixing and storage are other sources of emissions. Organic HAP emissions can occur from displacement of organic vapor-laden air in containers used to store organic HAP solvents or to mix coatings containing organic HAP solvents. The displacement of vapor-laden air can occur during the filling of containers and can be caused by changes in temperature or barometric pressure, or by agitation during mixing. In most cases, HAP emissions from surface preparation and waste/wastewater operations are relatively small.

Organic HAP. The final NESHAP regulate emissions of organic HAP. Available emission data collected during the development of the NESHAP show that the primary organic HAP emitted from automobile and light-duty truck surface coating operations are toluene, xylene, glycol ethers, MEK, MIBK, ethylbenzene, and methanol. These compounds account for over 95 percent of the nationwide HAP emissions from this source category.

Inorganic HAP. Based on information reported during the development of the NESHAP, lead, manganese, and chromium may be contained in some of the coatings used by this source category but are not likely to be emitted due to the coating application techniques used. No inorganic HAP were reported in thinners or cleaning materials. The only use of lead in coatings in this source category is in electrodeposition primers. None of this lead is emitted because these primers are applied by dip coating. Lead is being

phased out of electrodeposition primers. For spray applied coatings, most of the inorganic HAP components remain as solids in the dry coating film on the parts being coated, are collected by the circulating water under the spray booth floor grates, or are deposited on the walls, floor, and grates of the spray booths and other equipment in which they are applied. Therefore, inorganic HAP emission levels are expected to be very low and have not been quantified.

D. What Are the Health Effects Associated With Organic HAP Emissions From the Surface Coating of Automobiles and Light-Duty Trucks?

The HAP to be controlled with the final rule are associated with a variety of adverse health effects. Some of the potential toxic effects include effects to the central nervous system, such as fatigue, nausea, tremors, and lack of coordination; adverse effects on the liver, kidneys, and blood; respiratory effects; and developmental effects.

The degree of adverse effects to human health from exposure to HAP can range from mild to severe. The extent and degree to which the human health effects may be experienced are dependent upon (1) The ambient concentration observed in the area (as influenced by emission rates, meteorological conditions, and terrain); (2) the frequency and duration of exposures; (3) characteristics of exposed individuals (genetics, age, preexisting health conditions, and lifestyle), which vary significantly with the population; and (4) pollutant-specific characteristics (toxicity, half-life in the environment, bioaccumulation, and persistence).

We do not have the type of current detailed data on each of the facilities covered by these emission standards for this source category, and the people living around the facilities, that would be necessary to conduct a detailed analysis to determine the actual population exposures to the organic HAP emitted from these facilities and potential for resultant health effects. We did conduct a rough risk assessment which indicated that both the baseline level of adverse health effects and the effect of the final rule on human health are small. This rough risk assessment is discussed further later in this preamble and is available in the docket.

II. Summary of the Final Rule

A. What Source Categories Are Affected by the Final Rule?

The final rule applies to you if you own or operate a new, reconstructed, or existing affected source, as defined in § 63.3082, that is located at a facility which applies topcoat to new automobile or new light-duty truck bodies or body parts for new automobiles or new light-duty trucks, and that is a major source, is located at a major source, or is part of a major source of emissions of HAP. Body part is defined in the final rule to mean exterior parts such as hoods, fenders, doors, roof, quarter panels, decklids, tail gates, and cargo beds. Body parts were traditionally made of sheet metal, but now are also made of plastic. Bumpers, fascia, and cladding are not body parts. Coating operations included in this source category include, but are not limited to, the application of electrodeposition primer, primer-surfacer, topcoat (including basecoat and clear coat), final repair, glass bonding primer, glass bonding adhesive, sealer, adhesive, and deadener. The application of blackout and anti-chip materials is included in these coating operations, as is the cleaning and purging of equipment associated with the coating operations. If you are subject to the final rule and also coat parts intended for use in new automobiles or new light-duty trucks or as aftermarket repair or replacement parts for automobiles or light-duty trucks which would otherwise be subject to the Surface Coating of Miscellaneous Metal Parts and Products NESHAP (40 CFR part 63, subpart MMMM) or the Surface Coating of Plastic Parts and Products NESHAP (40 CFR part 63, subpart PPPP), you have the option to include these operations under the final rule. Alternately, you may choose to have such collocated coating operations remain subject to either the Surface Coating of Miscellaneous Metal Parts and Products NESHAP (40 CFR part 63, subpart MMMM) or the Surface Coating of Plastic Parts and Products NESHAP (40 CFR part 63, subpart PPPP). You may not include collocated operations that apply surface coatings to parts that are not intended for use in automobiles and light-duty trucks in your affected source under the final rule. We are also amending the Surface Coating of Miscellaneous Metal Parts and Products NESHAP (40 CFR part 63, subpart MMMM) and the Surface Coating of Plastic Parts and Products NESHAP (40 CFR part 63, subpart PPPP) to clarify the interaction between these rules and the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII). Automobile customizers, body shops, and refinishers are excluded from this source category.

You are not subject to the final rule if your coating operation is located at an area source. An area source is any stationary source of HAP that is not a major source.

You may establish area source status prior to the compliance date of the final rule by limiting the source's potential to emit HAP through appropriate mechanisms available through the permitting authority.

This source category does not include research or laboratory operations or janitorial, building, and facility maintenance operations.

We are also amending the RCRA Air Emissions Standards for Equipment Leaks at 40 CFR parts 264 and 265, subparts BB. The amendments exempt air emissions from the collection and transmission of captured purge material which would otherwise be subject to requirements of subparts BB of 40 CFR parts 264 and 265 if they are subject to the requirements of the final NESHAP. Generally, subparts BB of 40 CFR parts 264 and 265 apply to equipment that contains or contacts RCRA hazardous wastes with organic concentrations of at least 10 percent by weight. Subparts BB apply to large quantity generators as well as to RCRA treatment, storage, and disposal facilities. Subparts BB were designed to minimize air emissions from leaks from equipment such as pumps, valves, flanges, and connections.

The work practice standards in § 63.3094 of the final NESHAP address emissions from purging of coating applicators, the collection and transmission of purged paint and solvent in a purge capture system, and the storage of captured purge material. The collection and transmission systems would potentially be subject to the requirements of subparts BB. The potential for air releases once purged materials are captured is relatively small. The HAP emissions from captured purge materials are very small in comparison with the coating application, drying, and curing. Measurements made by industry indicate that emissions of volatile organic compounds (VOC) would be at least one to two orders of magnitude less than concentrations that would meet the definition of a leak under subparts BB of 40 CFR parts 264 and 265. Additionally, the collected mixture is usually shipped off-site to a solvent recycler and the automobile and light-duty truck facility typically receives a credit from the off-site solvent recycler for the solvent recovered from the mixture. This provides an additional incentive for the industry to retain as much of the captured purge material as possible, and therefore to repair any leaks as quickly as possible. For these

reasons and to avoid duplication, if such a collection and transmission system is subject to the final NESHAP then it is exempt from the requirements of subparts BB of 40 CFR parts 264 and 265.

If a facility chooses to include under the NESHAP operations which coat parts intended for use in new automobiles or new light-duty trucks or as aftermarket repair or replacement parts for automobiles or light-duty trucks which would otherwise be subject to the NESHAP for surface coating of miscellaneous metal parts and products (40 CFR part 63, subpart MMMM) or surface coating of plastic parts and products (40 CFR part 63, subpart PPPP), then the captured purge material from these operations are also exempt from the requirements of subparts BB of 40 CFR parts 264 and 265. Many of the coatings applied at facilities subject to the final NESHAP to separate, non-body plastic parts and separate, non-body metal parts for automobiles and light-duty trucks are similar in composition to those applied to automobile and light-duty truck bodies and body parts. The captured purge materials are conveyed to waste tanks in the same fashion as the purged materials from automobile and light-duty truck body coating operations.

B. What Is the Relationship to Other Rules?

Affected sources subject to the final rule may also be subject to other rules. Automobile and light-duty truck surface coating operations that began construction, reconstruction, or modification after October 5, 1979 are subject to new source performance standards (NSPS) under 40 CFR part 60, subpart MM. That rule limits emissions of VOC. The EPA has also published control techniques guidelines which establish reasonably available control technologies for limiting VOC emissions from automobile and light-duty truck surface coating operations. Additional VOC emission limitations may also apply to these facilities through conditions incorporated in State operating permits and permits issued under authority of title V of the CAA. Facilities in this subcategory may also be subject to various emission limitations pursuant to State air toxics rules.

An automobile and light-duty truck surface coating facility may be subject to other NESHAP. Subparts MMMM (for surface coating of miscellaneous metal parts and products) and PPPP (for surface coating of plastic parts and products) of 40 CFR part 63, limit emissions from coating operations conducted on separate, non-body parts. To decrease the burden of complying with multiple surface coating emission limits, the final rule provides that collocated operations that apply surface coating to any automobile and light-duty truck part may be optionally included under the final rule. Surface coating of metal and plastic parts not intended for attachment to automobiles and light-duty trucks remain covered under the relevant subpart, 40 CFR part 63, subpart MMMM for metal parts and 40 CFR part 63, subpart PPPP for plastic parts. We are also amending 40 CFR part 63, subparts MMMM and PPPP to clarify the interaction between these rules and the final rule. Facilities may also be subject to other rules relating to collocated equipment such as foundries and boilers.

The transmission and storage of captured purge materials from coating equipment may also be subject to the RCRA tank system requirements under subparts J of 40 CFR parts 264 and 265, and the Air Emission Standards for Equipment Leaks under subparts BB of of 40 CFR parts 264 and 265. The tank system rules under subparts J apply to hazardous waste storage tanks, all ancillary equipment used to convey hazardous waste to such tanks, and secondary containment systems. The requirements of subparts J are designed to prevent releases from hazardous waste tank systems and to detect and respond to releases from hazardous waste tank systems, thereby ensuring minimal risk of hazardous waste reaching ground water, surface waters, or soils.

The air emission standards for equipment leaks under subparts BB of 40 CFR parts 264 and 265 apply to equipment that contains or contacts RCRA hazardous waste with organic concentrations of at least 10 percent by weight. Subparts BB were designed to minimize air emissions from leaks from equipment such as pumps, valves, flanges, and connections. To avoid duplication between subparts BB and the final NESHAP, we are exempting equipment from subparts BB if it is subject to the Surface Coating of Automobiles and Light-Duty Trucks NESHAP.

C. What Is the Affected Source?

We define an affected source as a stationary source, group of stationary sources, or part of a stationary source to which a specific emission standard applies. The final rule defines the affected source as all of the equipment used to apply coating to new automobile or new light-duty truck bodies or body parts for new automobiles or new light-duty trucks and to dry or cure the coating after application; all storage containers and mixing vessels in which vehicle body coatings, thinners, and cleaning materials are stored or mixed; all manual and automated equipment and containers used for conveying vehicle body coatings, thinners, and cleaning materials; and all storage containers and all manual and automated equipment and containers used for conveying waste materials generated by an automobile and light-duty truck surface coating operation. Operations that apply surface coating to other automobile and light-duty truck parts may be optionally included in the affected source.

The affected source does not include research or laboratory operations or janitorial, building, and facility maintenance operations.

D. What Are the Emission Limits, Operating Limits, and Other Standards?

Emission limits. The final rule limits organic HAP emissions from each new or reconstructed automobile and light-duty truck surface coating facility using the emission limits in Table 2 of this preamble.

TABLE 2.—EMISSION LIMITS FOR NEW OR RECONSTRUCTED AFFECTED SOURCES (MONTHLY AVERAGE)

Operation	Limit
Combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operation plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c).	0.036 kilogram (kg) (0.30 pound (lb)) organic HAP/liter (HAP/gallon (gal)) of coating solids deposited).

TABLE 2.—EMISSION LIMITS FOR NEW OR RECONSTRUCTED AFFECTED SOURCES (MONTHLY AVERAGE)—Continued

Operation	Limit
Combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operation plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) (for sources meeting the operating limits of § 63.3092(a) or (b)).	0.060 kg (0.50 lb organic HAP/1iter (HAP/gal) of coating solids deposited).
Adhesives and sealers, other than glass bonding adhesive	0.010 kg/kg (lb/lb) of material used.
Deadener	0.010 kg/kg (lb/lb) of material used.

We are limiting organic HAP emissions from each existing automobile and light-duty truck surface coating facility using the emission limits in Table 3 of this preamble.

TABLE 3.—EMISSION LIMITS FOR EXISTING AFFECTED SOURCES (MONTHLY AVERAGE)

Operation	Limit
Combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operation plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c).	0.072 kg (0.60 lb) organic HAP/liter (HAP/gal) of coating solids deposited.
Combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operation plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) (for sources meeting the operating limits of § 63.3092(a) or (b)).	0.132 kg (1.10 lb) organic HAP/liter (HAP/gal) of coating solids deposited.
Adhesives and sealers other than glass bonding adhesive	0.010 kg/kg (lb/lb) of material used.
Deadener	0.010 lb/lb (kg/kg) of material used.

You must calculate emissions from: (1) The combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c); or (2) the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations (electrodeposition primer considered separately per §§ 63.3091(b) and 63.3092(b)) plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) using the procedures in the final rule, which account for the organic HAP contents of the materials applied in each month, as well as transfer efficiency and overall efficiencies of any capture systems and control devices in use. The monthly average emission rate for the combined group of operations (either grouping type (1) or grouping type (2) above) is calculated and compared to the applicable emission limit. Some facilities have multiple paint lines (*e.g.*, a facility with two or more totally distinct paint lines, each serving a distinct assembly line, or a facility with two or more paint lines sharing the same paint kitchen or mix room). The owner or operator may choose to group all of the operations from two or more paint lines together, or to make a separate grouping of the operations from individual paint lines. These options would, for example, allow a facility with two paint lines to use a grouping with electrodeposition primer (grouping type (1) above) for one paint line and a grouping with electrodeposition primer considered separately (grouping type (2) above) for the other paint line. They would also, for example, allow a facility with three paint lines to use one grouping for two of the paint lines and a separate grouping of the same type or of the other type for the third paint line. You must average organic HAP contents of other materials used on a monthly basis to determine separately those emissions from sealers and adhesives (other than glass bonding adhesive), and deadeners.

Operating limits. If you use an emission capture and control system to reduce emissions, the operating limits may apply to you. These operating limits are site-specific parameter limits you determine during the initial performance test of the system. For capture systems that are not capturing emissions from a downdraft spray booth or from a flash-off area or bake oven associated with a downdraft spray booth, you must identify the parameter(s) to monitor and establish the limits and monitoring procedures. For thermal and catalytic oxidizers, you must establish temperature limits. For solvent recovery systems, you must monitor the outlet concentration or carbon bed temperature and the amount of steam or nitrogen used to desorb the bed. All operating limits must reflect operation of the capture and control system during a performance test that demonstrates achievement of the emission limit during representative operating conditions.

Work practice standards. You must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in and waste

materials generated by all coating operations for which emission limits are established. The plan must specify practices and procedures to ensure that, at a minimum, the following elements are implemented:

- All organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be stored in closed containers. The risk of spills of organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be minimized.
- Organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.
- Mixing vessels, other than day tanks equipped with continuous agitation systems, which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents.
- Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment.

You must also develop and implement a work practice plan to minimize organic HAP emissions from cleaning and from purging of equipment associated with all coating operations for which emission limits are established. The plan must specify practices and procedures to ensure that emissions of HAP from the following operations are minimized:

- Vehicle body wiping;
- Coating line purging;
- Flushing of coating systems;
- Cleaning of spray booth grates;
- Cleaning of spray booth walls;
- Cleaning of spray booth equipment;
- Cleaning external spray booth areas; and
- Other housekeeping measures (*e.g.*, keeping solvent-laden rags in closed containers.)

General Provisions. The General Provisions (40 CFR part 63, subpart A) also apply to you as outlined in Table 2 of the final rule. The General Provisions codify certain procedures and criteria for all 40 CFR part 63 NESHAP. The General Provisions contain administrative procedures, preconstruction review procedures for new sources, and procedures for conducting compliance-related activities such as notifications, recordkeeping and reporting, performance testing, and monitoring. The final rule refers to individual sections of the General Provisions to emphasize key sections that you should be aware of. However, unless specifically overridden in Table 2 of the final rule, all of the applicable General Provisions requirements would apply to you.

E. What Are the Testing and Initial Compliance Requirements?

Existing affected sources must be in compliance with the final rule no later than April 26, 2007. New and reconstructed sources must be in compliance upon initial startup of the affected source or by June 25, 2004, whichever is later. However, affected sources are not required to demonstrate compliance until the end of the initial compliance period when they will have accumulated the necessary records to document the monthly organic HAP emission rate.

Compliance with the emission limits is based on a monthly organic HAP emission rate. The initial compliance period, therefore, is the 1-month period beginning on the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period begins on the compliance date and extends through the end of that month plus the following month. We have defined "month" as a calendar month or a pre-specified period of 28 to 35 days to allow for flexibility at sources where data are based on a business accounting period.

Being "in compliance" means that the owner or operator of the affected source meets all the requirements of the final rule to achieve the emission limit(s) and operating limits by the end of the initial compliance period, and that the facility is operated in accordance with the approved work practice plans. At the end of the initial compliance period, the owner or operator must use the data and records generated to determine whether or not the affected source is in compliance for that period. If it does not meet the applicable limit(s), then it is out of compliance for the entire initial compliance period.

Emission limits. Compliance with the emission limit for combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c), or the emission limit for combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) is based on mass organic HAP emissions per volume of applied coating solids as calculated monthly using the procedures in the final rule. Compliance with the emission limits for adhesives and sealers (other than glass bonding adhesive) and deadener is based on mass average organic HAP content of materials used each month.

Electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c). Compliance with this emission limit, or if eligible, with the emission limit for combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c), is based on calculations detailed in the final rule. You may also use the guidelines presented in the "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations" (EPA–450/3–88–018) (Auto Protocol).

To determine the organic HAP content, the volume solids, and the density of the coatings and thinners, you may rely on manufacturer's data, results from the test methods listed below, or alternative test methods for which you get EPA approval on a case-by-case basis according to the NESHAP General Provisions in 40 CFR 63.7(f). However, if there is any inconsistency between the test results and manufacturer's data, the test results will prevail for compliance and enforcement purposes unless after consultation, you demonstrate to the satisfaction of the enforcement authority that the manufacturer's data are correct.

- For organic HAP content, use Method 311 of 40 CFR part 63, appendix A.
- You may use nonaqueous volatile matter as a surrogate for organic HAP. If you choose this option, then use Method 24 of 40 CFR part 60, appendix A.
- For volume fraction of coating solids, use either ASTM Method D2697–86 (1998) or ASTM Method D6093–97.
- For density, use ASTM Method D1475–98 or information from the

supplier or manufacturer of the material.

For each emission capture and control system that you use, you must:

- Conduct an initial performance test to determine the overall control efficiency of the equipment (described below) and to establish operating limits to be achieved on a continuous basis (also described below). The performance test must be completed no later than the compliance date. You also must schedule it in time to obtain the results for use in completing your initial compliance determination for the initial compliance period.

You are not required to conduct an initial performance test to determine capture efficiency or destruction efficiency of a capture system or control device if you receive approval to use the results of a performance test that has been previously conducted on that capture system (either a previous stack test or a previous panel test) or control device. You are not required to conduct an initial test to determine transfer efficiency if you receive approval to use the results of a test that has been previously conducted.

The overall control efficiency for a capture and control system must be demonstrated based on emission capture and reduction efficiency. To determine the capture efficiency, you must either verify the presence of a permanent total enclosure using EPA Method 204 of 40 CFR part 51; measure the capture efficiency using either EPA Method 204A through F of 40 CFR part 51 or appendix A of 40 CFR part 63, subpart KK; or use the panel test procedures in ASTM Method D5087–91 (1994), ASTM Method D6266–00a, or the guidelines presented in the Auto Protocol as described in § 63.3165(e) and (g), and appendix A of the final rule. If you have a permanent total enclosure and you route all exhaust gases from the enclosure to a control device, then you may assume 100 percent capture. For panel testing, the coatings used may be grouped based on similar appearance characteristics (*e.g.*, solid color or metallic), processing sequences, and dry film thicknesses. One coating from each group can be tested to represent all of the coatings in that group.

To determine the emission reduction efficiency of the control device, you must conduct measurements of the inlet and outlet gas streams. The test consists of three runs, each run lasting 1 hour, using the following EPA Methods in 40 CFR part 60, appendix A:

- Method 1 or 1A for selection of the sampling sites.
- Method 2, 2A, 2C, 2D, 2F, or 2G to determine the gas volumetric flow rate.
- Method 3, 3A, or 3B for gas analysis to determine dry molecular weight.
- Method 4 to determine stack moisture.
- Method 25 or 25A to determine organic volatile matter concentration. Alternatively, any other test method or data that have been validated according to the applicable procedures in Method 301 of 40 CFR part 63, appendix A, and approved by the Administrator, may be used.

You are required to determine the transfer efficiency for primer-surfacer and topcoat materials and for all coatings, except for deadener and for adhesive and sealer that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) using ASTM Method D5066–91 (2001) or the guidelines presented in the Auto Protocol. Transfer efficiency testing may be performed for representative coatings and representative spray booths as described in the Auto Protocol, rather than for every coating and every spray booth. For example, one basecoat may be tested from a group of basecoats that are applied or processed in the same manner and the test result may be used for all of the coatings in the group and one spray booth may be tested from a group of identical parallel spray booths. Typical basecoat groupings are metallic colors and non-metallic colors. You may assume 100 percent transfer efficiency for electrodeposition primer coatings, glass bonding primers, and glass bonding adhesives. For final repair coatings, you may assume 40 percent transfer efficiency for air atomized spray and 55 percent transfer efficiency for electrostatic spray and high volume, low pressure spray.

The monthly emission rate, in terms of mass of organic HAP emitted per volume of coating solids deposited, is determined in accordance with the procedures in the final rule. These procedures incorporate the volume, organic HAP content, and volume solids content of each coating applied, as well as the transfer efficiency for the coatings and spray equipment used, and the overall control efficiency for controlled booths or bake ovens and other controlled emission points.

Adhesives and sealers, and deadener. Compliance with emissions limits for adhesives and sealers (other than windshield materials) is based on the monthly mass average organic HAP content of all materials of this type used during the compliance period. Compliance with emission limits for deadener is based on the monthly mass average organic HAP content of all materials of this type used during the compliance period.

Operating limits. As mentioned above, you must establish the required operating limits during the initial performance test of an emission capture and control system. The operating limit is defined as the minimum or maximum (as applicable) value achieved for a control device or process parameter during the most recent performance test that demonstrated compliance with the emission limit.

The final rule specifies the parameters to monitor for the types of control systems commonly used in the industry. You are required to install, calibrate, maintain, and continuously operate all monitoring equipment according to manufacturer's specifications and ensure that the continuous parameter monitoring systems (CPMS) meet the requirements in § 63.3168 of the final rule. If you use control devices other than those identified in the final rule, you must submit the operating parameters to be monitored to the Administrator for approval. The authority to approve the parameters to be monitored is retained by EPA and is not delegated to States.

If you use a thermal or catalytic oxidizer, you must continuously monitor temperature and record it at evenly spaced intervals at least every 15 minutes. For thermal oxidizers, the temperature monitor is placed in the firebox or in the duct immediately downstream of the firebox before any substantial heat exchange occurs. The operating limit for thermal oxidizers is the average temperature, based on all valid data, measured during the performance test. For each 3-hour period thereafter, the average temperature must be at or above this limit. As an alternative, if the latest operating permit issued before April 26, 2007 for the thermal oxidizer at your facility contains recordkeeping and reporting requirements for the combustion temperature that are consistent with the requirements for thermal oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limit for the combustion temperature for each such thermal oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average combustion temperature during the performance test of that thermal oxidizer. If you do not have an operating permit for the thermal oxidizer at your facility and the latest construction permit issued before April 26, 2007 for the thermal oxidizer at your facility contains recordkeeping and reporting requirements for the

combustion temperature that are consistent with the requirements for thermal oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limit for the combustion temperature for each such thermal oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average combustion temperature during the performance test of that thermal oxidizer. If you use this as the minimum operating limit for a thermal oxidizer, then you must keep the combustion temperature set point on that thermal oxidizer no lower than 14 degrees Celsius (25 degrees Fahrenheit) below the lower of that set point during the performance test for that thermal oxidizer and the average combustion temperature maintained during the performance test for that thermal oxidizer.

For catalytic oxidizers, temperature monitors are placed immediately before and after the catalyst bed. The operating limits for catalytic oxidizers are the average temperature just before the catalyst bed maintained during the performance test and 80 percent of the average temperature difference across the catalyst bed maintained during the performance test, except during periods of low production the latter minimum operating limit is to maintain a positive temperature gradient across the catalyst bed. A low production period is when production is less than 80 percent of production rate during the performance test. As an alternative, if the latest operating permit issued before April 26, 2007 for the catalytic oxidizer at your facility contains recordkeeping and reporting requirements for the temperature before the catalyst bed that are consistent with the requirements for catalytic oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limit for the temperature just before the catalyst bed for each such catalytic oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed during the performance test of that catalytic oxidizer. If you do not have an operating permit for the catalytic oxidizer at your facility and the latest construction permit issued before April 26, 2007 for the catalytic oxidizer at your facility contains recordkeeping and reporting requirements for the temperature before the catalyst bed that are consistent with the requirements for catalytic oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limit for the temperature just before the catalyst bed for each such catalytic oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed during the performance test of that catalytic oxidizer. If you use this as the minimum operating limit for the temperature just before the catalyst bed for a catalytic oxidizer, then you must keep the set point for the temperature just before the catalyst bed for that catalytic oxidizer no lower than 14 degrees Celsius (25 degrees Fahrenheit) below the lower of that set point during the performance test for that catalytic oxidizer and the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer. Also, as an alternative for catalytic oxidizers, you may monitor the temperature immediately before the catalyst bed and develop and implement an inspection and maintenance plan.

If you use a solvent recovery system, then you must either: (1) Continuously monitor the outlet concentration of organic compounds, and the operating limit is the average organic compound outlet concentration during the performance test (for each 3-hour period, the average concentration would have to be below this limit); or (2) monitor the carbon bed temperature after each regeneration and the total amount of steam or nitrogen used to desorb the bed for each regeneration, in which case the operating limits would be the carbon bed temperature (not to be exceeded) and the amount of steam or nitrogen used for desorption (to be met as a minimum).

If you use a capture system that is not part of a PTE that meets the criteria of 40 CFR 63.3165(a) and is not capturing emissions from a downdraft spray booth or from a flash-off area or bake oven associated with a downdraft spray booth to meet the final standards, you must meet operating limits for each capture device in that capture system. If the emission capture system is a permanent total enclosure, you are required to establish that the direction of flow is into the enclosure at all times. In addition, you must meet an operating limit of either an average facial velocity of at least 3,600 meters per hour (200 feet per minute) through all natural draft openings in the enclosure, or a minimum pressure drop across the enclosure of at least 0.18 millimeter water (0.007 inch water), as established by Method 204 of appendix M to 40 CFR part 51.

If the emission capture system is not a permanent total enclosure, you must establish either the average volumetric flow rate or the duct static pressure in each duct between the capture device and the add-on control device inlet during the performance test. Either the average volumetric flow rate must be maintained above the operating limit for each 3-hour period or the average duct static pressure must be maintained above the operating limit for each 3-hour period.

Work practice standards. You must develop and implement two site-specific work practice plans. One plan must address practices to minimize organic HAP emissions from storage, mixing, and conveying of coatings, thinners, and cleaning materials used in operations for which emission limits are established, as well as the waste materials generated from these operations. A second site-specific work practice plan must address practices to minimize emissions from cleaning operations and purging of coating equipment.

The plans must address specific types of potential organic HAP emission points and are subject to approval of the Administrator. Deviations from approved work practice plans must be reported semiannually.

F. What Are the Continuous Compliance Provisions?

Emission limits. Continuous compliance with the emission limit for combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) of the final rule, or if eligible, the emission limit for combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c), is based on monthly calculations following the procedures detailed in the final rule. These procedures take into account the amount of each coating used, the organic HAP and volume solids content of each coating used, the transfer efficiency of each coating application system, and the organic HAP abatement from each capture and control system, and provide for calculating monthly mass organic HAP emissions per volume of coating solids deposited.

Continuous compliance with the emission limits for adhesives and sealers (other than components of the windshield adhesive system), and

deadener is based on the monthly average mass organic HAP concentration of all materials applied in each category.

Operating limits. If you use an emission capture and control system, the final rule requires you to achieve on a continuous basis the operating limits you establish during the performance test. If the continuous monitoring shows that the system is operating outside the range of values established during the performance test, then you have deviated from the established operating limits.

If you operate a capture and control system that allows emissions to bypass the control device, you must demonstrate that HAP emissions from each emission point within the affected source are being routed to the control device by monitoring for potential bypass of the control device. You may choose from the following four monitoring procedures:

(1) Flow control position indicator to provide a record of whether the exhaust stream is directed to the control device;

(2) Car-seal or lock-and-key valve closures to secure the bypass line valve in the closed position when the control device is operating;

(3) Valve closure continuous monitoring to ensure any bypass line valve or damper is closed when the control device is operating; or

(4) Automatic shutdown system to stop the coating operation when flow is diverted from the control device.

If the continuous control device bypass monitoring shows that the control device is bypassed, then you have deviated from the established operating limits.

Operations during startup, shutdown, and malfunction. When using an emission capture and control system for compliance, you are required to develop and operate according to a startup, shutdown, and malfunction plan (SSMP) during periods of startup, shutdown, and malfunction of the capture and control system.

Work practice standards. You are required to operate your facility in accordance with your approved site-specific work practice plans at all times.

G. What Are the Notification, Recordkeeping, and Reporting Requirements?

You are required to comply with the applicable requirements in the NESHAP General Provisions, subpart A of 40 CFR part 63, as described in the final rule. The General Provisions notification requirements include: initial notifications, notification of performance test if you are complying using a capture system and control device, notification of compliance status, and additional notifications required for affected sources with continuous monitoring systems. The General Provisions also require certain records and periodic reports.

Initial Notifications. If you own or operate an existing affected source, you must send a notification to the EPA Regional Office in the region where your facility is located and to your State agency no later than April 26, 2005. For new and reconstructed sources, you must send the notification within 120 days after the date of initial startup or October 25, 2004, whichever is later. That report notifies us and your State agency that you have an existing affected source that is subject to the final standards or that you have constructed a new affected source. Thus, it allows you and the permitting authority to plan for compliance activities. You also need to send a notification of planned construction or reconstruction of a source that would be subject to the final rule and apply for approval to construct or reconstruct. If you have already submitted a notification in accordance with section 112(j) of the CAA, you are not required to submit another initial notification except to identify and describe all additions to the affected source made pursuant to § 63.3082(c) of the final rule.

Notification of Performance Test. If you demonstrate compliance by using a capture system and control device for which you do not conduct a liquid-liquid material balance, you must conduct a performance test. The performance test is required no later than the compliance date for an existing affected source. For a new or reconstructed affected source, the performance test is required no later than 180 days after startup or 180 days after the effective date of the final rule, whichever is later. You must notify EPA (or the delegated State or local agency) at least 60 calendar days before the performance test is scheduled to begin and submit a report of the performance test results no later than 60 days after the test.

Notification of Compliance Status. You must submit a Notification of Compliance Status within 60 days after the end of the initial compliance period. In the notification, you must certify whether the affected source has complied with the final standards; summarize the data and calculations supporting the compliance demonstration; describe how you will determine continuous compliance; and for capture and control systems for which you conduct performance tests, provide the results of the tests. Your notification must also include the measured range of each monitored parameter and the operating limits established during the performance test, and information showing whether you have achieved your operating limits during the initial compliance period.

Recordkeeping Requirements. The final rule requires you to collect and keep records according to certain minimum data requirements for the CPMS. Failure to collect and keep the specified minimum data is a deviation that is separate from any emission limit, operating limit, or work practice requirement. You are required to keep records of reported information and all other information necessary to document compliance with the final rule for 5 years. As required under the General Provisions, records for the 2 most recent years must be kept on-site; the other 3 years' records may be kept off-site. Records pertaining to the design and operation of the control and monitoring equipment must be kept for the life of the equipment.

You are required to keep the following records:

- A current copy of information provided by materials suppliers such as manufacturer's formulation data or test data used to determine organic HAP or VOC content, solids content, and quantity of the coatings and thinners applied.
- All documentation supporting initial notifications and notifications of compliance status. This includes a record of all raw data, protocol input data, algorithms, and intermediate calculations. If calculations are computerized, data, calculations, and intermediate and final results must also be maintained in electronic form.
- The occurrence and duration of each startup, shutdown, or malfunction of the emission capture and control system.
- All maintenance performed on the emission capture and control system.
- Actions taken during startup, shutdown, and malfunction that are different from the procedures specified in your SSMP.
- All information necessary to demonstrate conformance with your SSMP when the plan procedures are followed.
- Each period during which a CPMS is malfunctioning or inoperative (including out-of-control periods).
- All required measurements needed to demonstrate compliance with the standards.
- All results of performance tests.

• Data and documentation used to determine and capture system efficiency or to support a determination that the system is a permanent total enclosure.

• Required work practice plans and documentation to support compliance with the provisions of these plans.

Deviations, as determined from these records, must be recorded and also reported. A deviation is any instance when any requirement or obligation established by the final rule including, but not limited to, the emission limits, operating limits, and work practice standards, is not met.

If you use a capture system and control device to reduce organic HAP emissions, you must make your SSMP available for inspection if the Administrator requests to see it. The plan must stay in your records for the life of your affected source or until the source is no longer subject to the final standards. If you revise the plan, you must keep the previous superseded versions on record for 5 years following the revision.

Periodic Reports. Each reporting year is divided into two semiannual reporting periods. If no deviations occur during a semiannual reporting period, you must submit a semiannual report stating that the affected source has been in continuous compliance. If deviations occur, you must include them in the report as follows:

• Report each deviation from the emission limit.

• Report each deviation from the work practice plan.

• If you are complying by using a thermal oxidizer, report all times when a 3-hour average temperature is below the operating limit.

• If you are complying by using a catalytic oxidizer, report all times when a 3-hour average temperature increase across the catalyst bed is below the operating limit.

• If you are complying by using oxidizers or solvent recovery systems, report all times when the value of the site-specific operating parameter used to monitor the capture system performance was greater than or less than (as appropriate) the operating limit established for the capture system.

• Report other specific information on the periods of time the deviations occurred.

You must also send us explanations in each semiannual report if a change occurs that might affect your compliance status.

Other Reports. You are required to submit reports for periods of startup, shutdown, or malfunction of the capture system and control device. If the procedures you follow during any startup, shutdown, or malfunction are inconsistent with your SSMP, you report those procedures with your semiannual reports in addition to immediate reports required by 40 CFR 63.10(d)(5)(ii).

III. What Are the Significant Changes Since Proposal?

A. Applicability

We have provided an option permitting facilities subject to the final rule to include collocated operations involved in surface coating of parts for automobiles and light-duty trucks that would not otherwise be subject to the rule. Surface coating of these non-body parts, such as bumpers, fascias, and brackets at a time when they are not attached to (or otherwise simultaneously coated with) a new automobile or light-duty truck body or body parts would otherwise be subject to the Surface Coating of Miscellaneous Metal Parts and Products NESHAP, 40 CFR part 63, subpart MMMM, and/or the Surface Coating of Plastic Parts and Products NESHAP, 40 CFR part 63, subpart PPPP. Facilities opting to include operations of this type are responsible for obtaining all of the information necessary to determine compliance with the provisions of the final rule. Cleaning and purging operations associated with optionally included collocated surface coating operations would also be covered by the final rule. Collocated operations involved in surface coating of parts that are not related to automobiles and light-duty trucks may not be included, and continue to be regulated under the Surface Coating of Miscellaneous Metal Parts and Products NESHAP, 40 CFR part 63, subpart MMMM, and/or the Surface Coating of Plastic Parts and Products NESHAP, 40 CFR part 63, subpart PPPP. We are also amending subparts MMMM and PPPP to clarify the interaction between these rules and the surface coating automobiles and light-duty trucks rule. We were unable to include these changes in subparts MMMM and PPPP until the final rule was published since the changes to subparts MMMM and PPPP reference the final rule.

The final rule excludes "travel waxes" and other temporary coatings designed to be removed before vehicles are sold, as well as materials applied from touchup bottles.

B. Compliance Demonstration and Monitoring

As an alternative to the temperature monitoring provisions for thermal and catalytic oxidizers in the proposed rule, the final rule allows certain facilities which have been following the temperature monitoring provisions in 40 CFR 60.395(c) to continue to follow those provisions and to set the minimum operating limit for each such oxidizer at the same level as in 40 CFR 60.395(c).

The proposed rule used the average temperature rise across the catalyst during the performance test as one of the minimum operating limits for catalytic oxidizers. The final rule uses 80 percent of the average temperature rise across the catalyst during the performance test as one of the minimum operating limits for catalytic oxidizers, except during periods of low production this minimum operating limit is to maintain a positive temperature gradient across the catalyst bed.

The proposed rule contained operating parameter requirements for all capture systems. The final rule states that such monitoring is not required for downdraft spray booths or for flash-off areas or bake ovens associated with downdraft spray booths.

The proposed rule stated that if your add-on control system deviates from the operating limit specified in Table 1 to subpart IV of 40 CFR part 63, then you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation. We have written the final rule to allow the use of other data to indicate the actual efficiency of the emission capture system and add-on control device, as long as the use of these data is approved by the Administrator.

The proposed rule provided the option of using panel testing to determine bake oven capture efficiency. The final rule maintains this option and provides more detail on the calculations necessary to convert the results of such panel tests into the format needed for the final rule. The final rule also provides an option of using panel tests to determine spray booth capture efficiency.

C. Analytical Methods

The specification of analytical procedures to be employed in compliance demonstration is unchanged. A provision has been added to the final rule providing, in the event of a disagreement between the specified methods and the facility's data, an opportunity for the facility to consult with the enforcement authority and demonstrate to the satisfaction of the enforcement authority that formulation data or data obtained by other means are correct.

D. Notifications and Recordkeeping

In the final rule, we have provided that facilities that have previously submitted initial notifications under section 112(j) of the CAA are not required to submit the initial notifications otherwise required by this subpart except to identify and describe all additions to the affected source made pursuant to § 63.3082(c) of the final rule. In addition, we have extended the deadline for submission of compliance status from 30 days to 60 days following the end of the initial compliance period to allow additional time for data reduction and calculations.

The final rule provides that you must maintain a record of the calculations used to demonstrate compliance with the "Combined Electrodeposition Primer, Primer-Surfacer, Topcoat, Inline and Final Repair, Glass Bonding Primer, and Glass Bonding Adhesive Emission Rates" or "Combined Primer-Surfacer, Topcoat, Inline and Final Repair, Glass Bonding Primer, and Glass Bonding Adhesive Emission Rates." This record must include all raw data, algorithms, and intermediate calculations. If the guidelines presented in the Auto Protocol are used, you must keep records of all data input to this Auto Protocol. If these data are maintained as electronic files, the electronic files, as well as any paper copies must be maintained. These data must be provided to the permitting authority on request on paper, and in (if calculations are done electronically) electronic form.

E. Definitions

We have added definitions of bake oven air seal, body part, containers, paint line, sealers, spray booth air seal, and touchup bottles to the final rule. We have revised the definitions of deviation, final repair, in-line repair, and paint shop in the final rule.

IV. What Are the Responses to Significant Comments?

For the full set of comment summaries and responses, refer to the Response to Comment document which contains EPA's responses to each public comment and is available in Docket ID No. OAR–2002–0093 and Docket ID No. A–2001–22.

A. Applicability

Comment: A commenter was concerned that complying with the final rule by means of add-on control and equipment changes would trigger other regulatory requirements (new source review (NSR), prevention of significant deterioration (PSD), or NSPS) and requested a "safe harbor" be included in the final rule.

Response: We are not including in the final rule an exemption from NSR, PSD, and NSPS for those coating operations that are modified or upgraded in order to comply with the final rule. It would be inappropriate to include language in a NESHAP that could affect the applicability of these other programs since these are better handled on a case-by-case basis by the States and Regions implementing these other rules.

We do not expect compliance with the final rule to require changes to existing coating operations that would trigger major NSR or PSD permitting requirements. The steps taken to reduce organic HAP emissions to comply with the final rule are not expected to result in increased VOC emissions. Facilities that install oxidizers to reduce organic HAP may have a concurrent increase in nitrogen oxide emissions. We expect such facilities will be eligible for the pollution control project exclusion in the NSR regulations (67 FR 80186) since regenerative thermal oxidzers, thermal oxidizers, and catalytic oxidizers are presumed to be environmentally beneficial under the pollution control project exclusion. In addition, in order for the pollution control project exclusion to apply, the emissions increases from the project must not cause or contribute to a violation of any national ambient air quality standard or PSD increment, or adversely impact an air quality related value (such as visibility) that has been identified for a Federal Class I area by a Federal Land Manager and for which information is available to the general public.

Most, if not all, of the current automobile and light-duty truck surface coating facilities are already subject to the NSPS for automobile and light-duty truck surface coating. If there are any current facilities not already subject to the NSPS, we do not expect that the NSPS would be triggered by the changes necessary to comply with the final rule. The steps taken to reduce organic HAP emissions to comply with the final rule are not expected to result in increased VOC emissions. Increases in nitrogen oxide emissions resulting from the installation of oxidizers would not trigger the NSPS because nitrogen oxides are not a regulated pollutant under the NSPS.

Comment: A commenter recommended a broadening of the applicability of the proposed rule to allow those coating operations for metal and plastic parts conducted at facilities subject to the final rule to be considered part of the automobile and light-duty truck surface coating rule. This approach would provide affected sources with the greatest degree of flexibility for future changes in vehicle coating processes, *e.g.*, coating doors separately on another line rather than coating automobiles and light-duty trucks with the doors attached to the frame. This approach would also significantly reduce reporting, recordkeeping, and monitoring requirements, while assuring significant emissions reductions.

Response: We agree that providing this flexibility to operators of automobile assembly plants may reduce the burden associated with complying with multiple rules without increasing HAP emissions. Allowing the specified collocated coatings operations to be included under the final rule may simplify the tracking of coatings inventory and reduce the reporting and recordkeeping requirements associated with complying with multiple rules. The final rule provides operators of automobile assembly plants the option to include all collocated plastic and metal parts coating operations related to automobiles and light-duty trucks under the rule. This includes coating of replacement parts for attachment outside the facility, and coating of non-body parts (such as fascia cladding, brackets, fuel tanks, and radiators) for automobiles or light-duty trucks. Off-line coating of body parts, such as doors, for attachment to automobiles and light-duty trucks coated at the facility remain (as proposed) in the affected source under the final rule. Operators choosing to include such operations are required to obtain the necessary information (including transfer efficiency and capture efficiency) to demonstrate compliance. Coating of non-automotive parts, vehicles other than automobiles and light-duty trucks (such as motorcycles, all-terrain vehicles, or watercraft), or parts for such vehicles, may not be included. We are also amending 40 CFR part 63, subparts MMMM and PPPP, to clarify the interaction between those rules and the surface coating for automobiles and light-duty trucks final rule.

Comment: A commenter noted that the definition of the term "coating" excludes certain decorative, protective, or functional coatings that consist only of protective oils. The commenter stated that automobile and light-duty truck assembly plants also apply several different types of temporary coatings, *e.g.*, travel wax and blackout coatings. These coatings serve a cosmetic purpose and are not designed to remain on the vehicle for a long time. The commenter stated that these "cosmetic coatings" should not be included in the definition of coating for the purposes of the MACT

standards given their temporary nature and the fact that emissions from these coatings are minimal.

Response: We agree that temporary coatings are applied differently and serve a different function than the coatings intended to be regulated. In addition, the data collected and used in the determination of MACT, did not include temporary coatings. The definition of coating operation has been written to exclude the application of temporary materials such as protective oils and "travel waxes" that are designed to be removed from the vehicle before the vehicle is delivered to the retail purchaser.

Comment: A commenter recommended a minimum threshold cutoff for purposes of applicability of the final rule and suggested that EPA provide an exemption of 250 gal per year, similar to the usage cutoffs in other MACT standards.

Response: The commenter did not provide any data to support the inclusion of this type of exemption in the final rule. The MACT determination took into account emissions and solids from "special colors." These materials are not exempt from the NSPS, and reporting systems to account for them are presently in place at most, if not all, assembly plants. The definition of coating operation in the final rule has been revised to exclude "touchup bottles," which will exempt some materials used in very small quantities.

Comment: Approximately ten automobile and light-duty truck facilities have received permits with case-by-case MACT determinations under 40 CFR 63.40 and section 112(g) of the CAA. One commenter questioned whether the final NESHAP would apply to such facilities or if these facilities will continue to be subject to limits established in their permits under section 112(g). Another commenter stated that the section 112(g) permit requirements are more stringent than the proposed MACT limits for existing sources. This commenter suggested that EPA state in the final rule that the section 112(g) permits are equivalent to the MACT limits for existing sources and provide these facilities with the choice of keeping their section 112(g) permits or having 8 years to comply with the MACT limits for existing sources.

Response: Based upon the process used for making section 112(g) determinations and a brief review of some of the section 112(g) determinations made for facilities in this industry, we expect that the result of a thorough review would be that most or all of the section 112(g) determinations made for facilities in this industry are equivalent to MACT. These reviews and equivalency determinations are best done on a case-by-case basis by the permitting authority.

In accordance with 40 CFR 63.44(c), if the level of control required by the emission standard issued under section 112(d) is less stringent than the level of control required by a prior case-by-case section 112(g) MACT determination pursuant to 40 CFR 63.43, the permitting authority is not required to incorporate any less stringent terms of the promulgated standard in the title V operating permit applicable to the facility. In such a case, the permitting authority may choose to have the section 112(g) MACT determination remain in effect. Alternatively, the permitting authority may choose to have the NESHAP come into effect for the facility in place of the section 112(g) MACT determination. In this case, the facility may be given up to 8 years from the promulgation date of the NESHAP to comply with the NESHAP. The changes in equipment, materials, monitoring, recordkeeping, and reporting necessary to demonstrate compliance with the NESHAP rather than with the section 112(g) determination and the fact that the NESHAP are less stringent than the section 112(g) determination should be taken into account in determining how much time the facility is given to comply with the NESHAP.

In the less likely event that the level of control required by the emission standard issued under section 112(d) is not found to be less stringent than the level of control required by a prior case-by-case section 112(g) MACT determination, then the facility must comply with the NESHAP. In this case, the facility may be given up to 8 years from the promulgation date of the NESHAP to comply with the NESHAP. The changes in equipment, materials, monitoring, recordkeeping, and reporting necessary to demonstrate compliance with the NESHAP rather than with the section 112(g) determination and the fact that the NESHAP are not less stringent than the section 112(g) determination should be taken into account in determining how much time the facility is given to comply with the NESHAP.

As an alternative, if the level of control required by the emission standard issued under section 112(d) is not found to be less stringent than the level of control required by a prior case-by-case section 112(g) MACT determination and the difference in stringency is small, then the permitting authority could amend the facility's operating permit to make it equivalent to the NESHAP and have the section 112(g) MACT determination remain in effect. This approach may be less burdensome on both the facility and the permitting authority than having the NESHAP come into effect for the facility while achieving the same environmental results.

B. Compliance Demonstration, Monitoring, and Emission Limits

Comment: The commenter stated that the CAA, EPA rules, and EPA policy all authorize adoption of a Compliance Assurance Monitoring (CAM) protocol as MACT monitoring for coating sources at automobile and light-duty truck surface coating facilities. The commenter noted that the proposed rule allows the use of the CAM protocol as an option for compliance with certain aspects of the rule, but not for others, such as control equipment effectiveness and monitoring. The commenter stated that it is critical that the compliance provisions for the separate coating MACT standards that are applicable be harmonized, not only with each other, but also with the other coating standards that apply under State Implementation Plan requirements (including reasonably available control technology and best available control technology/lowest achievable emission rate).

Response: The proposed rule referred to the Auto Protocol as an option for compliance demonstration. This Auto Protocol does not include CAM provisions and does not include any guidance for control device efficiency monitoring. A CAM guidance document for automobile and light-duty truck coating is under development, but has not been completed. As described earlier in this preamble, we have provided an option for certain facilities to continue using the thermal and catalytic oxidizer temperature monitoring operating limits in 40 CFR 60.395(c). We have also removed the operating parameter requirements for capture systems which capture emissions from downdraft spray booths or from flash-off areas or bake ovens associated with downdraft spray booths.

Comment: The commenter stated that, for the performance tests required in proposed § 63.3160(a) and (b), EPA should allow prior performance tests, *e.g.*, transfer efficiency, removal efficiency, capture efficiency, destruction efficiency, oven solvent loading, to satisfy the performance tests required by the standards. Since EPA has agreed that HAP emitted from these operations behave in the same way as VOC, there is no reason for redundant

testing. The commenter recommended that the scope and frequency of testing for transfer efficiency, oven solvent loading, and spraybooth capture efficiency be determined by the Auto Protocol.

According to the Auto Protocol, retesting of transfer efficiency is required if there are significant product, processing, material, or application equipment changes. Where parallel spraybooths are used, testing is required for only one booth. Oven solvent loading is determined with an initial compliance test followed by annual review of system operating conditions. The most recent test result remains valid as long as no significant changes have occurred in the coating technology or processing. The commenter feels that annual variations in color pallette or routine solvent blend adjustments are not significant changes, and that a similar trigger should apply for spraybooth capture efficiency testing. The affected source would maintain records documenting the annual reevaluation and the basis for the decision on whether retesting was required.

Response: We agree that the most recent test data can be used to demonstrate compliance and to establish the operating limits required by the final rule, provided that (1) the test was conducted using the same methods and conditions specified in this subpart, (2) no equipment changes have been made since the previous test (or you can demonstrate the results are reliable despite the changes), and (3) the required operating parameters were determined or sufficient data were collected to establish them. The Auto Protocol includes guidance for scope and frequency of testing for transfer efficiency and oven solvent loading panel testing.

Comment: The commenter noted that proposed § 63.3161(j), covering the calculation of HAP emissions reduction for controlled coating operations not using a liquid-liquid material balance, assumes zero efficiency for the emission capture system and add-on control device for periods of operating parameter or bypass line deviations, including startup, shutdown, or malfunction. The commenter claims that this approach is unrealistic and unduly penalizes facilities that may have a minor parameter reporting problem, *e.g.*, an automatic temperature readout malfunction. The commenter requested that § 63.3161 be written so that there is a generic way to calculate a facility's destruction credit when a deviation has occurred. The commenter suggested that facilities have the option to calculate an appropriate destruction credit for the hours of the excursion based on other available information.

Response: If a source has manually collected parameter data indicating that an emission capture system or control device was operating normally during a parameter monitoring system malfunction, these data could be used to support and document that the source was achieving the same overall control efficiency and the source would not have to assume zero-percent efficiency. If a source has data indicating the actual performance of an add-on emission capture system and control device (*e.g.*, percent capture measured at a reduced flow rate or percent destruction efficiency measured at reduced thermal oxidizer temperatures) during a deviation from operating limits or during a malfunction of the monitoring system, then the source may use the actual performance in determining compliance, provided the use of these data are approved by the Administrator. The final rule has been written to clarify that such data may be used rather than assuming that the efficiency is zero.

Comment: A commenter asserted that establishing a MACT floor (and monthly emission limits) based on the highest monthly average emission rates at the best (as determined on an annual basis) performing facilities would result in higher annual HAP emissions than the annual average emissions of the best performing plants. The commenter cited as an example the proposed MACT floor (and monthly emission limit) for the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive application operations of 0.60 lbs/gal of applied coating solids, which the commenter asserted is substantially higher (reflective of a less stringent limit) than the annual average of the eight lowest emitting plants (0.48 lbs/gal of applied coating solids).

The commenter asserted that the same deficiencies affect EPA's proposed MACT floor for new and reconstructed sources, and noted that EPA used the peak monthly emissions of the lowest annual emitting source to establish a monthly average that is well above the actual annual emission level of the lowest emitting source. The commenter urged EPA to establish a MACT floor for new and existing sources that has both monthly and annual emission limits.

Response: The automobiles and light-duty trucks coated at each facility are coated in a variety of colors. This color variety is present not only among the topcoats, but also among the primer-surfacers. The make-up and content of each color varies. Each color, for example, has its own unique organic HAP content, VOC content, and volume solids content. The coating application system, and therefore transfer efficiency, may also vary among the families of coatings (*e.g.*, solid color basecoats and metallic color basecoats) used at a facility. The specific color mix produced varies from month-to-month. As a result of this variation in color mix, the organic HAP emission rate at a facility also varies from month-to-month.

We had monthly emission data upon which to base the standards. A monthly emission limit is appropriate and has been promulgated. Establishing a monthly emission limit based on annual emission rates would result in the best performing plants being out of compliance approximately 6 months per year. Such an emission limit would not appropriately account for monthly variation in color mix. The final standards reflect what is consistently achievable considering the typical variation in demand for particular colors of vehicles. Having both a monthly and an annual emission limit would be redundant and burdensome (on both facilities and enforcement agencies), and would not lead to additional emissions reductions. Actual annual emission rates associated with consistent achievement of the final monthly standards will be substantially lower than the monthly emission limits. Establishing a standard of 0.48 lb/gal of applied coating solids and requiring it to be met on an annual basis would not result in lower emissions than a standard of 0.60 lb/gal of applied coating solids which must be met each and every month.

Comment: A commenter noted the proposed NESHAP set limits of 0.01 lb of HAP per lb of material used for adhesive and sealer application and 0.01 lb of HAP per lb of material used for deadener. Based on the review of three permits, the commenter has determined the CAA section 112(g) value for adhesives and sealer application and the deadener operations is that none of the materials used shall contain any volatile HAP as defined by the suppliers' material safety data sheets (MSDS). It does not appear to the commenter that these facilities were included in the floor analysis.

The commenter encouraged EPA to ensure that these facilities were included in the database if they were operating 18 months prior to the proposal and they were operating during the base year for the floor database.

Response: The base year of the database used to determine the MACT

floors for new and existing sources was 1997. These limits are based, in part, on the detection limits (and the precision and accuracy achievable at low concentrations) of available approved chemical analytical methods. The MSDS typically report concentrations of less than 0.01 lb noncarcinogenic HAP per lb material (less than 0.001 lb carcinogenic HAP per lb material) as zero, indicating that the limits suggested by the commenter are equivalent to those of the final rule. The final rule provides that Method 311 is presumed (subject to rebuttal) to take precedence over MSDS or other formulation data. Facilities may be unable to reliably demonstrate that coatings contain "no volatile HAP" by this method.

Comment: A commenter stated that regulations under section 112 of the CAA must include emission standards for each HAP that a category emits and that the proposed regulations failed to comply with that mandate. The commenter stated that even though the EPA states that automobile coating sources emit many different HAP, including metals such as lead, manganese, and chromium compounds, the Agency has proposed standards for only organic HAP.

Response: Most of the coatings used in this subcategory do not contain inorganic HAP. The only use of lead in coatings in this source category is in electrodeposition primers. None of this lead is emitted because these primers are applied by dip coating. Lead is being phased out of electrodeposition primers. For spray applied coatings, most of the inorganic HAP components of these coatings remain as solids in the dry coating film on the parts being coated, are collected by the circulating water under the spray booth floor grates, or are deposited on the walls, floor, and grates of the spray booths and other equipment in which they are applied. The waterwash systems which are present in all primer-surfacer and topcoat spraybooths reduce the amount of coating droplets, and thus inorganic HAP, emitted to the air. These controls have been in place for many years. Facilities cannot operate without these controls. Therefore, inorganic HAP emission levels are expected to be very low and have not been quantified. The EPA has no basis upon which to establish MACT for inorganic HAP, and the commenter has supplied no data in support of an emission limit. Including control requirements for waterwash systems in the final rule would not be expected to result in additional emission reductions and would only add to the regulatory burden on the industry.

Comment: A commenter claimed that the requirement to document that a source is in continuous compliance with work practices is confusing and should be modified and streamlined. Continuous documentation of compliance with the work practice plan could be difficult, at best, and appears to be unnecessary. Under the commenter's recommended language, continuous compliance with the work practices would be confirmed by the presence of the work practice plan and the documents used to verify performance of the work practice activities, (*i.e.*, operational or maintenance records, documented inspections or internal audits, third party certifications or similar practices).

Response: Continuous documentation is not required, rather the recordkeeping requirements of § 63.3130(n) call for documentation that you are implementing the plan on a continuous basis. The records cited by the commenter (*i.e.*, operational or maintenance records, documented inspections or internal audits) have been added to § 63.3130(n) of the final rule as examples of documentation that demonstrate you are implementing the plan on a continuous basis.

Comment: A commenter noted that the proposed NESHAP covered fewer operations within the source category than the CAA section 112(g) determinations completed to date. Additional operations covered by section 112(g) determinations include purge and cleanup operations for three facilities, foam and maintenance painting for two facilities, and sound dampening application. The commenter encouraged EPA to include these facilities in the database if they were operating 18 months prior to proposal and were operating during the base year for the floor database. The commenter feels that purge and cleanup operations, foam, and maintenance painting operations should be identified individually in the final rule or identified as part of a grouping of operations with an overall emission limit.

Response: While facilities provided extensive data on purge material usage to EPA in response to information collection requests (ICR), estimates of recovery of these materials were extremely variable, with facilities of similar operation estimating very different recoveries. These data were not reliable enough to establish MACT on a numerical basis. The EPA chose to limit emissions from these operations through work practices. Cleaning material usage data were also provided, however since (a) emissions from these materials are rarely controlled, (b) EPA has no reliable data on the controllability of cleaning operations, and (c) cleaning material usage is not well correlated with vehicle production, EPA chose to limit emissions from these operations through work practices. Foam is injected into body panel cavities primarily for sound deadening and is subject to the emission limit for deadeners. Industry representatives have indicated in recent discussions that, as far as they know there are no HAP emissions associated with foam. Deadener application (for sound control) is subject to a standard based on the reliably demonstratable composition of very low-HAP material. One facility reported the use of cavity wax (no HAP content data were available and the facility assumed that it resulted in essentially zero HAP emissions). We have excluded maintenance coating from the final rule. No data were available upon which to base a MACT floor for this operation.

Comment: A commenter stated that waterwash controls for paint spray booths that are designed for particulate control are being evaluated for VOC control. The commenter also stated that HAP are typically found in large quantities in water-based coatings. With the increased use of water-based coatings, and the requirement for site-specific parameter limits, facilities may want to use the waterwash control as the primary control for HAP. The commenter stated that no EPA test protocol has been designed to address field testing of a waterwash control system and requested that EPA provide industry and the regulatory agencies with either an approved testing protocol or a technical guidance document.

The commenter also stated that if this will be addressed as an "alternate test method," it should be explicitly stated in the final rule and asked what parameter limits EPA envisions for a facility to monitor HAP removed by waterwash systems if capture credit is claimed.

Response: No facilities are presently using the spray booth waterwash as a VOC or organic HAP control device and no specific method for testing has been developed. If a facility wanted to use a device of this type to control HAP, the same methods in 40 CFR part 60, appendix A, presently used for oxidizers and adsorbers might be adapted for this purpose. Alternately, the test methods and operating parameter monitoring applicable to wet scrubbers or wastewater treatment might be adapted for this purpose. A source would be required to obtain approval of an alternate test procedure and

monitoring approach of their choice under the General Provisions, if these data were to be used to demonstrate compliance.

Comment: A commenter stated that in the "Rationale for Selecting the Proposed Standards" portion of the preamble, EPA stated that five formats were considered for the allowable organic HAP emission limits from the affected sources. A limit of organic HAP emissions per unit of surface area was rejected based on the inconsistent basis of the surface area coated estimates by the different manufacturers. The commenter noted that EPA further stated that "The data that we received were incomplete, and the methods of estimating vehicle surface areas varied widely." The commenter noted that all United States automobile manufacturers currently demonstrate compliance with their lbs of VOC per gal of applied coating solids limits by using the Auto Protocol. One of the essential components of the Auto Protocol is the surface area coated. The commenter submitted that, if EPA feels that the data are inconsistent and incomplete, then the Auto Protocol should be revised to correct this deficiency or disregarded altogether. Otherwise, the commenter recommends that the limits be re-evaluated using the most current, statistically acceptable data for surface area where appropriate.

Response: The Auto Protocol requires that surface areas of different vehicle types be determined in a manner that is consistent within the facility (so that material usage may be allocated to specific days and specific spray booths). A consistent approach has not been required from facility to facility, and it was not possible to reliably compare reported surface area data between different facilities.

C. Analytical Methods

Comment: A commenter noted that §§ 63.3151 and 63.3171(e) rely on Method 311 as one of the ways to determine the mass fraction of HAP for demonstrating initial compliance. The proposed rule also stipulated that if there is a "disagreement" between supplier or manufacturer information and the results from test methods, then the test method results take precedence. The commenter disagrees with the presumption that the test results are correct, and pointed out that there is considerable variability in the analytical test results even when Method 311 is run carefully. The commenter cited technical causes of variability including thermal stability, sample handling, reactivity of some coatings, gas chromatograph (GC) column selection, and the oven/column temperature profile. The commenter recommended that EPA establish a "confidence limit" of ±50 percent for analyses conducted in accordance with Method 311.

The commenter noted that in past MACT standards, such as the MACT for wood furniture, EPA has permitted sources to rebut test results. The commenter also recommended that EPA allow the use of formulation data for methanol, because in a coating with melamine resins, methanol may be generated by the temperature in the injection column of the GC. This methanol by-product would be recorded even though it is not present in the coating.

Response: We agree that a variety of analytical techniques (different columns, detectors, temperature programming, etc.) allowable within the broad framework of Method 311 may lead to inconsistent results if not optimized for the specific target analyte and background interferences specific to a particular coating. The final rule provides that in the event of any inconsistency between the Method 311 data obtained by the permitting agency and the formulation data used by the facility, or, between the Method 311 data obtained by the permitting agency and analytical data obtained by the facility, the Method 311 data obtained by the permitting agency shall govern (excluding HAP produced by chemical reaction in the analytical process), unless, after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the facility's data are correct. Analyses of known formulations by Method 311 have been demonstrated to be far less variable than a ±50 percent confidence interval would imply. We have not set a specific tolerance level for this analysis. Facilities that experience problems with specific applications of Method 311 may choose to obtain statistical variance data to support an explanation of a discrepancy between Method 311 data and compositions obtained from formulation data or other sources.

Comment: The commenter recommended additional procedures to assure consistency when using Method 311 for purposes of complying with the final rule. The commenter suggested the following procedures to help assure that the testing performed by the enforcement agency is consistent with those tests run by the source (or coatings manufacturer): (1) The facility would provide to the applicable agency the determination of the proper test parameters to be used and the temperature at which the analysis should be performed, (2) the facility should have the option to divide any sample collected by the agency that implements and enforces the MACT standards, and (3) both the applicable control agency and the facility should be authorized to be present while sampling and/or testing under Method 311 is being conducted.

Response: The facility has the opportunity to provide any guidance to the permitting agency to assist in the chemical analysis of the coating, however, the final rule does not require the permitting agency to follow the guidance of the facility in cases where it disagrees. The facility has the opportunity to conduct parallel sampling of any coating material that the permitting agency samples; no change to the rule is necessary to permit this. It is not feasible to guarantee that a representative of the facility may witness the chemical analysis. Permitting agencies may use testing laboratories where scheduling is uncertain and samples may be split for different analyses which may take place in different labs (perhaps simultaneously).

D. Notifications, Reports, and Recordkeeping

Comment: A commenter noted that according to proposed § 63.3110(c), notification of compliance status is due within 30 days following the end of the initial compliance period. The commenter requested the 60-day time period specified in the General Provisions, § 63.9(h) for submittal of the compliance notification.

Response: The final rule has been written to allow 60 days from the end of the initial compliance period for submission of the notification of compliance status. We recognize that additional time may be necessary to confirm the accuracy of the methodology for calculating the emission rate in the initial compliance period.

Comment: A commenter noted that EPA has historically differentiated exceedences or excursions (now called deviations) from startup, shutdown, and malfunction events and has used this terminology in other MACT standards. Also, the recognition that they are different events is further evidenced by requiring two separate reports in previous standards: The periodic compliance report and the periodic startup, shutdown, malfunction report. The commenter acknowledged that filing a combined report saves time and resources and agrees with this as long as the deviation reporting section is distinct from the startup, shutdown, malfunction reporting section. The

commenter recommended that EPA write the final rule to reflect that operations in accordance with SSMP are not deviations and are not reported as such.

Response: Proposed § 63.3163(h) provided that consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the SSMP. The Administrator will determine whether deviations that occur during a period you identify as a startup, shutdown, or malfunction are violations according to the provisions in § 63.6(e). According to § 63.6(e), any affected source must at all times meet the emission standard or comply with the SSMP.

E. Definitions

Comment: Commenter submits that the definition of "initial startup" does not accurately describe what constitutes the startup of a new source and recommended that the phrase "the first time equipment is brought online in a facility" in the proposed definition be written to "the first time a salable product is produced." Otherwise the term would include periods that are not representative of normal operation.

Response: We agree with the commenter that periods of equipment testing and calibration prior to the time that production is commenced may not be representative of the emissions reductions and control device performance achievable in normal operation. The definition of "initial startup" in the final rule has been written to refer to the first time a salable product is coated.

Comment: The commenter stated that the term "container" is used repeatedly throughout the proposed rule and that the rule covers "all storage containers and mixing vessels in which coatings, thinners, and cleaning materials are stored and mixed." It is not clear whether the term container would include tanks used to store certain solvents and coatings.

Response: A definition of container has been added to the final rule, covering coatings, solvents, and cleaning materials.

F. Amendment of RCRA Rule

Comment: A commenter noted that EPA states that currently air emissions from the collection, transmission, and storage of purged paint and solvent at these sources are regulated under RCRA. However, in its proposed rule, EPA exempts these wastes from RCRA and transfers the regulation under the CAA. The EPA further explains that "this exemption is considered to be less stringent than existing RCRA regulations." The EPA also proposes to establish work practice standards to control these emissions rather than numeric emission standards.

The commenter submits that the CAA mandates floors that reflect "the average emission limitation achieved by the best performing 12 percent of the existing sources (for which the Administrator has emissions information). "Also, EPA may only propose a work practice standard MACT if the Agency demonstrates that it is "not feasible to prescribe or enforce an emission standard." The commenter asserts that EPA does not demonstrate it is infeasible to prescribe or enforce an emissions standard for the collection, transmission, and storage of purged paint and solvent and thus, the proposed rule is unlawful. Also, EPA fails to explain whether existing sources subject to RCRA are reducing their HAP emissions and, if so, whether the existing RCRA requirements could serve as the basis for establishing a MACT floor. Finally, the commenter claims the Agency's proposal is arbitrary and capricious because it fails to explain the consequences of transferring regulatory authority from RCRA to CAA, how the shift in regulatory authority results in less stringency, or identify the Agency's legal authority to exempt HAP emissions from RCRA.

The commenter urges EPA to establish a MACT floor that considers the emissions reductions at those sources currently subject to RCRA and properly determine whether an emission standard, instead of work practice standard, is appropriate for these sources.

Response: The NESHAP address both the capture of purged materials and the transport and storage of purged materials after they have been captured. This is more comprehensive than the existing RCRA rule being amended which only addresses the transport and storage of purged materials after they have been captured. The requirements of the final NESHAP are, therefore, at least as effective as the requirements of the existing RCRA rule. The language in the preamble to the proposed rule cited by the commenter was not an assessment of the effect of the proposed NESHAP on activities covered by the existing RCRA rule, nor was it a comparison of the proposed NESHAP and the existing RCRA rule.

The language cited by the commenter was characterizing the proposed revision to the RCRA rule as less stringent than the existing RCRA rule. This comparison was made in the context of discussing whether States would be required to adopt the revised RCRA rule. We consider an exemption from RCRA rules to be less stringent than the retention of those rules. Since it would be less stringent, States would not be required to adopt the revised rule in their RCRA programs (RCRA section 3009). If we had considered the revision to be more stringent, States then would be required to adopt and seek authorization for those provisions (section 3006 of RCRA).

G. Risk Based Approaches

The preamble to the proposed rule requested comment on whether there might be further ways to structure the final rule to focus on the facilities which pose significant risks and avoid the imposition of high costs on facilities that pose little risk to public health and the environment. Specifically, we requested comment on the technical and legal viability of two risk-based approaches: (1) an applicability cutoff for threshold pollutants under the authority of CAA section 112(d)(4); and (2) subcategorization and delisting under the authority of CAA sections 112(c)(1) and 112(c)(9). We indicated that we would evaluate all comments before determining whether either approach would be included in the final rule. Numerous commenters submitted detailed comments on these risk-based approaches. These comments are summarized in the Response-to-Comments document.

Based on our consideration of the comments received and other factors, we have decided not to include the risk-based approaches in today's final rule. The risk-based approaches described in the proposed rule and addressed in the comments we received raise a number of complex issues. In addition, we are under time pressure to complete the final rule, because the statutory deadline for promulgation has passed and a deadline suit has been filed against EPA. (See Sierra Club v. Whitman, Civil Action No. 1:01CV01537 (D.D.C.).) Given the range of issues raised by the risk-based approaches and the need to promulgate a final rule expeditiously, we feel that it is appropriate not to include any risk-based approaches in today's final rule. Nonetheless, we expect to continue to consider risk-based approaches in connection with other NESHAP where we have described and solicited comment on such approaches. This

determination does not preclude future consideration of similar or other risk-based approaches for this source category in the future.

V. Summary of Environmental, Energy, and Economic Impacts

A. What Are the Air Impacts?

The final rule will decrease HAP emissions from automobile and light-duty truck surface coating facilities from an estimated 10,000 tpy to 4,000 tpy. This represents a decrease of 6,000 tpy or 60 percent. The final rule will also decrease VOC by approximately 12,000 tpy to 18,000 tpy. These values were calculated in comparison to baseline emissions reported to EPA by individual facilities for 1996 or 1997.

B. What Are the Cost Impacts?

The estimated total capital costs of compliance, including the costs of monitors, is $670 million. This will result in an additional annualized capital cost of $75 million.

The projected total annual costs, including capital recovery, operating costs, monitoring, recordkeeping, and reporting is $154 million per year.

The cost analysis assumed that each existing facility will use, in the order presented, as many of the following four steps as necessary to meet the emission limit. First, if needed, facilities that do not already control their electrodeposition primer bake oven exhaust will install and operate such control at an average cost of $8,200 per ton of HAP controlled. Next, if needed, facilities will reduce the HAP-to-VOC ratio of their primer-surfacer and topcoat materials to 0.3 from 1.0 at an average cost of $540 per ton of HAP controlled. Finally, if needed, facilities will control the necessary volume of primer-surfacer and topcoat spray booth exhaust gas at an average cost of $40,000 per ton of HAP controlled. For all four steps combined, the average cost is about $25,000 per ton of HAP controlled.

New facilities and new paint shops will incur little additional cost to meet the emission limit. These facilities will already include bake oven controls and partial spray booth exhaust controls for VOC control purposes. New facilities may need to make some downward adjustment in the HAP content of their materials to meet the emission limit.

We received no detailed information on these cost elements in the public comments. Therefore, we have not changed the cost estimates since proposal.

C. What Are the Economic Impacts?

We prepared an economic impact analysis (EIA) to evaluate the primary and secondary impacts the proposed rule would have on the producers and consumers of automobiles and light-duty trucks, and society as a whole. The analysis was conducted to determine the economic impacts associated with the proposed rule at both the market and industry levels. Overall, the analysis indicated a minimal change in vehicle prices and production quantities. None of the changes made since proposal have resulted in changes in costs, so the EIA prepared for the proposed rule has not been updated for the final rule.

Based on the estimated compliance costs associated with the final rule and the predicted changes in prices and production in the affected industry, the estimated annual social cost of the rule is projected to be $161 million (1999 dollars). The social costs take into account changes in behavior by producers and consumers due to the imposition of compliance costs. For this reason the estimated annual social costs differ from the estimated annual engineering costs of $154 million. Producers, in aggregate, are expected to bear $152 million annually in costs while the consumers are expected to incur the remaining $10 million in social costs associated with the final rule.

The economic model projects an aggregate price increase for the modeled vehicle classes of automobiles and light-duty trucks to be less than 1/100th of 1 percent as a result of the final standards. This represents at most an increase in price of $3.00 per vehicle. The model also projects that directly affected producers will reduce total production by approximately 1,400 vehicles per year. This represents approximately 0.01 percent of the 12.7 million vehicles produced by the potentially affected plants in 1999, the baseline year of analysis.

In terms of industry impacts, the automobile and light-duty truck manufacturers are projected to experience a decrease in pre-tax earnings of about 1 percent or $152 million. In comparison, total pre-tax earnings for the affected plants included in the analysis exceeded $14 billion in 1999. The reduction in pre-tax earnings of 1 percent reflects an increase in production costs and a decline in revenues earned from a reduction in the quantity of vehicles sold. Through the market and industry impacts described above, the final rule will lead to a redistribution of profits within the industry. Some facilities (28 percent) are projected to experience a profit increase under the final rule; however, the majority (72 percent) that continue operating are projected to lose profits. No facilities are projected to close due to the final rule.

D. What Are the Non-Air Health, Environmental, and Energy Impacts?

Solid waste and water impacts of the final rule are expected to be negligible. Capture of additional organic HAP-laden streams and control of these streams with regenerative thermal oxidizers is expected to require an additional 180 million kilowatt hours per year and an additional 4.9 billion standard cubic feet per year of natural gas.

VI. How Will the Amendments to 40 CFR Parts 264 and 265, Subparts BB, of the Hazardous Waste Regulations Be Implemented in the States?

A. Applicability of Federal Rules in Authorized States

Under section 3006 of the RCRA, EPA may authorize a qualified State to administer and enforce a hazardous waste program within the State in lieu of the Federal program and to issue and enforce permits in the State. A State may receive authorization by following the approval process described under 40 CFR 271.21. See 40 CFR part 271 for the overall standards and requirements for authorization. The EPA continues to have independent authority to bring enforcement actions under RCRA sections 3007, 3008, 3013, and 7003. An authorized State also continues to have independent authority to bring enforcement actions under State law.

After a State receives initial authorization, new Federal requirements promulgated under RCRA authority existing prior to the 1984 Hazardous and Solid Waste Amendments (HSWA) do not apply in that State until the State adopts and receives authorization for equivalent State requirements. In contrast, under RCRA section 3006(g) (42 U.S.C. 6926(g)), new Federal requirements and prohibitions promulgated pursuant to HSWA provisions take effect in authorized States at the same time that they take effect in unauthorized States. As such, EPA carries out HSWA requirements and prohibitions in authorized States, including the issuance of new permits implementing those requirements, until EPA authorizes the State to do so.

Authorized States are required to modify their programs when EPA promulgates Federal requirements that

are more stringent or broader in scope than existing Federal requirements. The RCRA section 3009 allows the States to impose standards more stringent than those in the Federal program. (See also 40 CFR 271.1(i)). Therefore, authorized States are not required to adopt Federal regulations, both HSWA and non-HSWA, that are considered less stringent than existing Federal requirements.

B. Authorization of States for Today's Amendments

Currently, the air emissions from the collection, transmission, and storage of captured purged paint and solvent at automobile and light-duty truck assembly plants are regulated under the authority of RCRA (see 40 CFR parts 264 and 265, subparts BB). Today's amendments will exempt these wastes from regulation under RCRA and defer regulation to the final NESHAP. This exemption is considered to be less stringent than the existing RCRA regulations and, therefore, States are not required to adopt and seek authorization for today's exemption. However, EPA strongly encourages States to adopt today's amended RCRA provisions and seek authorization for them to prevent duplication with the NESHAP.

VII. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the Agency must determine whether the regulatory action is "significant" and, therefore, subject to Office of Management and Budget (OMB) review and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, it has been determined that the final rule is a "significant regulatory action," because it could have an annual impact on the economy of over $100 million. As such, this action was submitted to OMB for review. Changes made in response to OMB suggestions or recommendations will be documented in the public record.

B. Paperwork Reduction Act

The information collection requirements in the final rule have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501, *et seq.* The information collection requirements are not enforceable until OMB approves them.

The information requirements are based on notification, recordkeeping, and reporting requirements in the General Provisions (40 CFR part 63, subpart A), which are mandatory for all operators subject to national emission standards. These recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414). All information submitted to EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to EPA policies set forth in 40 CFR part 2, subpart B.

The final standards do not require any notifications or reports beyond those required by the General Provisions. The recordkeeping requirements require only the specific information needed to determine compliance.

The annual monitoring, reporting, and recordkeeping burden for this collection (averaged over the first 3 years after the effective date of the final rule) is estimated to be 33,436 labor hours per year at a total annual cost of $982,742. This estimate includes a one-time performance test and report (with repeat tests where needed) for those affected sources that choose to comply through the installation of new capture systems and control devices; one-time purchase and installation of CPMS for those affected sources that choose to comply through the installation of new capture systems and control devices; preparation and submission of work practice plans; one-time submission of a SSMP with semiannual reports for any event when the procedures in the plan were not followed; semiannual excess emission reports; maintenance inspections; notifications; and recordkeeping. There are no additional capital/startup costs associated with the monitoring requirements over the 3-year period of the ICR. The monitoring related operation and maintenance costs over this same period are estimated at $7,000.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9. When this ICR is approved by OMB, the Agency will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number for the approved information collection requirements contained in the final rule.

C. Regulatory Flexibility Act

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the final rule. For purposes of assessing the impacts of today's rule on small entities for the automobile and light-duty truck surface coating industry, a small entity is defined as: (1) A small business according to Small Business Administration size standards for companies identified by NAICS codes 33611 (automobile manufacturing) and 33621 (light-duty truck and utility vehicle manufacturing) with 1,000 or fewer employees; (2) a small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. Based on the above definition, there are no small entities presently engaged in automobile and light-duty truck surface coating.

After considering the economic impacts of the final rule on small entities, EPA has concluded that this action will not have a significant economic impact on a substantial number of small entities. This is based

on the observation that the final rule affects no small entities since none are engaged in the surface coating of automobiles and light-duty trucks.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that the final rule contains a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. Specifically, the final rule may result in such expenditures by the private sector. Accordingly, EPA has prepared under section 202 of the UMRA a written statement (titled Unfunded Mandates Reform Act Analysis for the Automobiles and Light-Duty Trucks Coating NESHAP) which is summarized below.

Statutory Authority

The statutory authority for the final rule is section 112 of the CAA, enacted to reduce nationwide air toxics emissions. In compliance with UMRA section 205(a), we identified and considered a reasonable number of regulatory alternatives. Additional information on the costs and environmental impacts of these regulatory alternatives is presented in the docket. The regulatory alternative upon which the final rule is based represents the MACT floor for automobile and light-duty truck coating operations and, as a result, is the least costly and least burdensome alternative.

Social Costs and Benefits

The regulatory impact analysis prepared for the final rule, including EPA's assessment of costs and benefits, is detailed in the "Regulatory Impact Analysis for the Automobiles and Light-Duty Trucks Coating NESHAP" in the docket. Based on the estimated compliance costs associated with the rule and the predicted changes in prices and production in the affected industry, the estimated annual social costs of the final rule is projected to be $161 million (1999 dollars).

It is estimated that 5 years after implementation of the final rule, HAP will be reduced from 10,000 tpy to 4,000 tpy. This represents a 60 percent reduction (6,000 tpy) of toluene, xylene, glycol ethers, MEK, MIBK, ethylbenzene, and methanol. Exposure to HAP can result in the incidence of respiratory irritation, chest constriction, gastric irritation, eye, nose, and throat irritation, as well as neurological and blood effects, including fatigue, nausea, tremor, and anemia. Based on scientific studies conducted over the past 20 years, EPA has classified EGBE as a "possible human carcinogen," while ethylbenzene, MEK, toluene, and xylenes are considered by the Agency as "not classifiable as to human carcinogenicity." The studies upon which these classifications are based have worked toward the determination of a relationship between exposure to these HAP and the onset of cancer.

Monetization of the benefits of reductions in cancer incidences requires several important inputs, including central estimates of cancer risks, estimates of exposure to carcinogenic HAP, and estimates of the value of an avoided case of cancer (fatal and non-fatal). Currently, EPA relies on unit risk factors (URF) developed through risk assessment procedures. The unit risk factor is a quantitative estimate of the carcinogenic potency of a pollutant, often expressed as the probability of contracting cancer from a 70-year lifetime continuous exposure to a concentration of one $\mu g/m^3$ of a pollutant. These URF are designed to be conservative, and as such, are more likely to represent the high end of the distribution of risk rather than a best or most likely estimate of risk.

In a typical analysis of the expected health benefits of a regulation (*e.g.*, "Regulatory Impact Analysis: Heavy-Duty Engine and Highway Diesel Fuel Sulfur Control Requirements", December 2000, EPA420–R–00–026), health effects are estimated by applying changes in pollutant concentrations to best estimates of risk obtained from epidemiological studies. As the purpose of a benefit analysis is to describe the benefits most likely to occur from a reduction in pollution, use of high-end, conservative risk estimates will lead to a biased estimate of the expected benefits of the final rule. While we used high-end risk estimates in past analyses, recent advice from the EPA Science Advisory Board (SAB) and internal methods reviews have suggested that we avoid using high-end estimates in current analyses. For these reasons, we will not attempt to quantify the health benefits of reductions in HAP unless best estimates of risks are available. Also, limited input data on noncancer effects associated with exposure to these HAP do not allow us to quantify the benefits from risk reductions of these effects. Thus, we are unable to provide a monetized estimate of the benefits of HAP reduced by the final rule at this time. The EPA is working with the SAB to develop better methods for analyzing the benefits of reductions in HAP.

We conducted a rough risk assessment which indicated that both the baseline level of adverse health effects and the effects of the final rule on human health are small. This rough risk assessment is available in the docket. The risk estimates from this rough assessment were based on typical facility configurations (*i.e.*, model plants) and are subject to significant uncertainties.

The rough risk assessment indicated that currently there may be up to 100 people exposed to HAP above reference concentration (RfC) levels as a result of emissions from these facilities. The emission reductions required by the final rule would bring all, or almost all, of these people to exposures below the RfC. The rough risk assessment also indicated that currently no one would be exposed to a lifetime cancer risk above 10 in a million and perhaps 6,000

people are exposed to a lifetime cancer risk above 1 in a million as a result of emissions from these facilities. The final rule is not expected to have any significant impact on cancer risk. A more refined risk assessment will be performed as part of the residual risk analysis which is required to occur within 8 years after promulgation of the final rule.

The control technology to reduce the level of HAP emitted from automobile and light-duty truck coating operations is also expected to reduce emissions of criteria pollutants, particularly VOC. Specifically, the final rule achieves a 12,000 to 18,000 tpy reduction in VOC. This represents a significant reduction of VOC emissions from these sources, but less than 1 percent of national VOC emissions. The VOC is a precursor to tropospheric (ground-level) ozone and a small percentage also precipitate in the atmosphere to form particulate matter (PM).

Although we were not able to estimate the monetary value associated with VOC reductions, the health and welfare effects from exposure to ground-level ozone are well documented. Elevated concentrations of ground-level ozone primarily may result in acute respiratory-related impacts such as coughing and difficulty breathing. Chronic exposure to ground-level ozone may lead to structural damage to the lungs, alterations in lung capacity and breathing frequency, increased sensitivity of airways, eye, nose, and throat irritation, malaise, and nausea. Adverse ozone welfare effects include damage to agricultural crops, ornamental plants, and materials damage. Though only a small fraction of VOC forms PM, exposure to PM can result in human health and welfare effects, including excess deaths, morbidity, soiling and materials damage, as well as reduced visibility.

To the extent that reduced exposure to HAP and VOC reduces the instances of the above described health effects, benefits from the final rule will be realized by society through an improvement in environmental quality.

Future and Disproportionate Costs

The UMRA requires that we estimate, where accurate estimation is reasonably feasible, future compliance costs imposed by the final rule and any disproportionate budgetary effects. We do not feel that there will be any disproportionate budgetary effects of the final rule on any particular areas of the country, State, or local governments, types of communities (*e.g.*, urban, rural), or particular industry segments.

Effects on the National Economy

The UMRA requires that we estimate the effect of the rule on the national economy. To the extent feasible, we must estimate the effect on productivity, economic growth, full employment, creation of productive jobs, and international competitiveness of United States goods and services if we determine that accurate estimates are reasonably feasible and that such effect is relevant and material.

The nationwide economic impact of the final rule is presented in the EIA. That analysis provides estimates of the effect of the rule on some of the categories mentioned above.

The estimated direct cost to the automobile and light-duty truck manufacturing industry of compliance with the final rule is approximately $154 million (1999 dollars) annually. Indirect costs of the final rule to industries other than the automobile and light-duty truck manufacturing industry, governments, tribes, and other affected entities are expected to be minor. The final rule is expected to have little impact on domestic productivity, economic growth, full employment, energy markets, creation of productive jobs, and the international competitiveness of United States goods and services.

Consultation With Government Officials

Although the final rule does not affect any State, local, or tribal governments, we have consulted with State and local air pollution control officials. The EPA has held meetings on the final rule with many of the stakeholders from numerous individual companies, environmental groups, consultants and vendors, and other interested parties. The EPA has added materials to the docket to document these meetings.

E. Executive Order 13132: Federalism

Executive Order 13132 (64 FR 43255, August 10, 1999) requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" are defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

The final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. Pursuant to the terms of Executive Order 13132, it has been determined that the final rule does not have "federalism implications" because it does not meet the necessary criteria. Thus, Executive Order 13132 does not apply to the final rule.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175 (65 FR 67249, November 9, 2000) requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." The final rule does not have tribal implications, as specified in Executive Order 13175. The EPA is not aware of tribal governments that own or operate automobile and light-duty truck surface coating facilities. Thus, Executive Order 13175 does not apply to the final rule.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, EPA must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The final rule is not subject to Executive Order 13045 because it is based on technology performance and not on health or safety risks.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

The final rule is not a "significant energy action" as defined in Executive Order 13211 (66 FR 28355, May 22,

2001) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

The final rule affects the automobile and light-duty truck manufacturing industries. There is no crude oil, fuel, or coal production from these industries, therefore there is no direct effect on such energy production related to implementation of the final rule. In addition, the cost of energy distribution will not be affected by the final rule since the rule does not affect energy distribution facilities.

The final rule is projected to trigger an increase in energy use due to the installation and operation of additional pollution control equipment. The estimated increase in energy consumption is 4.9 billion standard cubic feet per year of natural gas and 180 million kilowatt hours per year of electricity nationwide. The nationwide cost of this increased energy consumption is estimated at $26 million per year.

The increase in energy costs does not reflect changes in energy prices, but rather an increase in the quantity of electricity and natural gas demanded. Given that the existing electricity generation capacity in the United States was 785,990 megawatts in 1999[1] and that 23,755 billion cubic feet of natural gas was produced domestically in the same year,[2] the final rule is not likely to have any significant adverse impact on energy prices, distribution, availability, or use.

I. National Technology Transfer and Advancement Act

As noted in the proposed rule, Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113; section 12(d) (15 U.S.C. 272 *note*) directs EPA to use voluntary consensus standards (VCS) in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. The VCS are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by VCS bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable VCS.

The final rule involves technical standards. The EPA cites the following standards in the final rule: EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 3A, 3B, 4, 24, 25, 25A, 204, 204A–F, and 311. Consistent with the NTTAA, EPA conducted searches to identify VCS in addition to these EPA methods. No applicable VCS were identified for EPA Methods 1A, 2A, 2D, 2F, 2G, 204, 204A through 204F and 311. The search and review results have been documented and are placed in Docket ID No. OAR–2002–0093 and Docket ID No. A–2001–22).

The eight VCS described below were identified as acceptable alternatives to EPA test methods for the purposes of the final rule.

The VCS ANSI/ASME PTC 19.10–1981, "Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]," is cited in the final rule for its manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas. This part of ANSI/ASME PTC 19.10–1981, Part 10, is an acceptable alternative to Method 3B.

The two VCS, ASTM D2697–86 (Reapproved 1998), "Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings," and ASTM D6093–97 (Reapproved 2003), "Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer," are cited in the final rule as acceptable alternatives to EPA Method 24 to determine the volume solids content of coatings. Currently, EPA Method 24 does not have a procedure for determining the volume of solids in coatings. The two VCS augment the procedures in Method 24, which currently states that volume solids content be calculated from the coating manufacturer's formulation. In addition, we are separately specifying the use of ASTM D1475–98 (Reapproved 2003) for measuring the density of each coating, thinner and/or additive, and cleaning material.

The VCS, ASTM D5066–91 (Reapproved 2001), "Standard Test Method for Determination of the Transfer Efficiency Under Production Conditions for Spray Application of Automotive Paints-Weight Basis," is cited in the final rule as an acceptable procedure to measure transfer efficiency of spray coatings. Currently, no EPA method is available to measure transfer efficiency.

The two VCS, ASTM D6266–00a, "Test Method for Determining the Amount of Volatile Organic Compound (VOC) Released from Waterborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)," and ASTM D5087–02 (Reapproved 1994), "Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)," are cited in the final rule as acceptable procedures to measure solvent loading (related to capture efficiency) for the heated flash zone for waterborne basecoats and for bake ovens. Currently, no EPA method is available to measure solvent loading for automobile and light-duty truck coatings. In addition, ASTM D5965–02, "Standard Test Methods for Specific Gravity of Coating Powders," is specified in the rule as a method to determine the volume solids of powder coatings.

Six VCS: ASTM D1475–90, ASTM D2369–95, ASTM D3792–91, ASTM D4017–96a, ASTM D4457–85 (Reapproved 1991), and ASTM D5403–93 are already incorporated by reference (IBR) in EPA Method 24. Five VCS: ASTM D1979–91, ASTM D3432–89, ASTM D4747–87, ASTM D4827–93, and ASTM PS9–94 are IBR in EPA Method 311.

In addition to the VCS included in the final rule, the search for emissions measurement procedures identified 14 other VCS. The EPA determined that 11 of these 14 standards identified for measuring emissions of the HAP or surrogates subject to emission standards in the final rule were impractical alternatives to EPA test methods. Therefore, EPA did not adopt these standards for this purpose. (See Docket ID No. OAR–2002–0093 and Docket ID No. A–2001–22 for further information on the methods.)

Sections 63.3161 and 63.3166 of the final rule list the EPA testing methods included in the final rule. Under § 63.7(f) of subpart A of the General Provisions, a source may apply to EPA for permission to use alternative test methods in place of any of the EPA testing methods.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801, *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing the final rule and other required information to the United States Senate, the United States House of Representatives, and the Comptroller General of the United States prior to publication of the final

[1] U.S. Department of Energy. 1999. Electric Power Annual, Volume I. Table A2: Industry Capability by Fuel Source and Industry Sector, 1999 and 1998 (Megawatts).

[2] U.S. Department of Energy. 1999. Natural Gas Annual. Table 1: Summary Statistics for Natural Gas in the United States, 1995–1999.

rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is a major rule as defined by 5 U.S.C. 804(2). The final rule will be effective 60 days after April 26, 2004.

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: February 26, 2004.

Michael O. Leavitt,

Administrator.

■ For the reasons stated in the preamble, title 40, chapter I, parts 63, 264, and 265 of the Code of Federal Regulations is amended as follows:

PART 63—[AMENDED]

■ 1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

Subpart A—[Amended]

■ 2. Section 63.14 is amended by adding and reserving new paragraph (b)(35), adding new paragraphs (b)(36), (37), and (38), and revising paragraphs (b)(24), (25), (26), and (32), and (i)(3) to read as follows:

§ 63.14 Incorporations by reference

* * * * *

(b) * * *

(24) ASTM D2697–86 (Reapproved 1998), "Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings," IBR approved for §§ 63.3161(f)(1), 63.3521(b)(1), 63.3941(b)(1), 63.4141(b)(1), 63.4741(b)(1), 63.4941(b)(1), and 63.5160(c).

(25) ASTM D6093–97 (Reapproved 2003), "Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer," IBR approved for §§ 63.3161(f)(1), 63.3521(b)(1), 63.3941(b)(1), 63.4141(b)(1), 63.4741(b)(1), 63.4941(b)(1), and 63.5160(c).

(26) ASTM D1475–98 (Reapproved 2003), "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products," IBR approved for §§ 63.3151(b), 63.3941(b)(4), 63.3941(c), 63.3951(c), 63.4141(b)(3), 63.4141(c), and 63.4551(c).

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(32) ASTM D5965–02, "Standard Test Methods for Specific Gravity of Coating Powders," IBR approved for §§ 63.3151(b) and 63.3951(c).

* * * * *

(35) [Reserved]

(36) ASTM D5066–91 (Reapproved 2001), "Standard Test Method for Determination of the Transfer Efficiency Under Production Conditions for Spray Application of Automotive Paints-Weight Basis," IBR approved for § 63.3161(g).

(37) ASTM D5087–02, "Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)," IBR approved for §§ 63.3165(e) and 63.3176, appendix A.

(38) ASTM D6266–00a, "Test Method for Determining the Amount of Volatile Organic Compound (VOC) Released from Waterborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)," IBR approved for § 63.3165(e).

* * * * *

(i) * * *

(3) ANSI/ASME PTC 19.10–1981, "Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]," IBR approved for §§ 63.865(b), 63.3166(a)(3), 63.3360(e)(1)(iii), 63.3545(a)(3), 63.3555(a)(3), 63.4166(a)(3), 63.4362(a)(3), 63.4766(a)(3), 63.4965(a)(3), 63.5160(d)(1)(iii), 63.9307(c)(2), and 63.9323(a)(3).

* * * * *

■ 3. Part 63 is amended by adding subpart IIII to read as follows:

Subpart IIII—National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks

Sec.

What This Subpart Covers

63.3080 What is the purpose of this subpart?
63.3081 Am I subject to this subpart?
63.3082 What parts of my plant does this subpart cover?
63.3083 When do I have to comply with this subpart?

Emission Limitations

63.3090 What emission limits must I meet for a new or reconstructed affected source?
63.3091 What emission limits must I meet for an existing affected source?
63.3092 How must I control emissions from my electrodeposition primer system if I want to comply with the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive emission limit?
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General Compliance Requirements

63.3100 What are my general requirements for complying with this subpart?
63.3101 What parts of the General Provisions apply to me?

Notifications, Reports, and Records

63.3110 What notifications must I submit?
63.3120 What reports must I submit?
63.3130 What records must I keep?
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Compliance Requirements for Adhesive, Sealer, and Deadener

63.3150 By what date must I conduct the initial compliance demonstration?
63.3151 How do I demonstrate initial compliance with the emission limitations?
63.3152 How do I demonstrate continuous compliance with the emission limitations?

Compliance Requirements for the Combined Electrodeposition Primer, Primer-Surfacer, Topcoat, Final Repair, Glass Bonding Primer, and Glass Bonding Adhesive Emission Limitations

63.3160 By what date must I conduct performance tests and other initial compliance demonstrations?
63.3161 How do I demonstrate initial compliance?
63.3162 [Reserved]
63.3163 How do I demonstrate continuous compliance with the emission limitations?
63.3164 What are the general requirements for performance tests?
63.3165 How do I determine the emission capture system efficiency?
63.3166 How do I determine the add-on control device emission destruction or removal efficiency?
63.3167 How do I establish the add-on control device operating limits during the performance test?
63.3168 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?

Compliance Requirements for the Combined Primer-Surfacer, Topcoat, Final Repair, Glass Bonding Primer, and Glass Bonding Adhesive Emission Limitations and the Separate Electrodeposition Primer Emission Limitations

63.3170 By what date must I conduct performance tests and other initial compliance demonstrations?
63.3171 How do I demonstrate initial compliance?
63.3172 [Reserved]
63.3173 How do I demonstrate continuous compliance with the emission limitations?

Other Requirements and Information

63.3175 Who implements and enforces this subpart?
63.3176 What definitions apply to this subpart?

Tables to Subpart IIII of Part 63

Table 1 to Subpart IIII of Part 63. Operating Limits for Capture Systems and Add-On Control Devices
Table 2 to Subpart IIII of Part 63. Applicability of General Provisions to Subpart IIII of Part 63
Table 3 to Subpart IIII of Part 63. Default Organic HAP Mass Fraction for Solvents and Solvent Blends
Table 4 to Subpart IIII of Part 63. Default Organic HAP Mass Fraction for Petroleum Solvent Groups

Appendix A to Subpart IIII of Part 63—Determination of Capture Efficiency of Automobile and Light-Duty Truck Spray Booth Emissions from Solvent-borne Coatings Using Panel Testing

Subpart IIII—National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks

What This Subpart Covers

§ 63.3080 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for facilities which surface coat new automobile or new light-duty truck bodies or body parts for new automobiles or new light-duty trucks. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§ 63.3081 Am I subject to this subpart?

(a) Except as provided in paragraph (c) of this section, the source category to which this subpart applies is automobile and light-duty truck surface coating.

(b) You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source, as defined in § 63.3082, that is located at a facility which applies topcoat to new automobile or new light-duty truck bodies or body parts for new automobiles or new light-duty trucks, and that is a major source, is located at a major source, or is part of a major source of emissions of hazardous air pollutants (HAP). A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year or any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year.

(c) This subpart does not apply to surface coating, surface preparation, or cleaning activities that meet the criteria of paragraph (c)(1) or (2) of this section.

(1) Surface coating subject to any other NESHAP in this part as of June 25, 2004 except as provided in § 63.3082(c).

(2) Surface coating that occurs during research or laboratory activities or that is part of janitorial, building, and facility maintenance operations, including maintenance spray booths used for painting production equipment, furniture, signage, etc., for use within the plant.

§ 63.3082 What parts of my plant does this subpart cover?

(a) This subpart applies to each new, reconstructed, and existing affected source.

(b) The affected source is the collection of all of the items listed in paragraphs (b)(1) through (4) of this section that are used for surface coating of new automobile or new light-duty truck bodies, or body parts for new automobiles or new light-duty trucks:

(1) All coating operations as defined in § 63.3176.

(2) All storage containers and mixing vessels in which coatings, thinners, and cleaning materials are stored or mixed.

(3) All manual and automated equipment and containers used for conveying coatings, thinners, and cleaning materials.

(4) All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.

(c) In addition, you may choose to include in your affected source, and thereby make subject to the requirements of this subpart, any coating operations, as defined in § 63.3176, which would otherwise be subject to the NESHAP for surface coating of miscellaneous metal parts and products (subpart MMMM of this part) or surface coating of plastic parts and products (subpart PPPP of this part) which apply coatings to parts intended for use in new automobiles or new light-duty trucks or as aftermarket repair or replacement parts for automobiles or light-duty trucks.

(d) For all coating operations which you choose to add to your affected source pursuant to paragraph (c) of this section:

(1) All associated storage containers and mixing vessels in which coatings, thinners, and cleaning materials are stored or mixed; manual and automated equipment and containers used for conveying coatings, thinners, and cleaning materials; and storage containers and manual and automated equipment and containers used for conveying waste materials are also included in your affected source and are subject to the requirements of this subpart.

(2) All cleaning and purging of equipment associated with the added surface coating operations is subject to the requirements of this subpart.

(3) You must identify and describe all additions to the affected source made pursuant to paragraph (c) of this section in the initial notification required in § 63.3110(b).

(e) An affected source is a new affected source if you commenced its construction after December 24, 2002, and the construction is of a completely new automobile and light-duty truck assembly plant where previously no automobile and light-duty truck assembly plant had existed, a completely new automobile and light-duty truck paint shop where previously no automobile and light-duty truck paint shop had existed, or a new automobile and light-duty truck topcoat operation where previously no automobile and light-duty truck topcoat operation had existed.

(f) An affected source is reconstructed if its paint shop undergoes replacement of components to such an extent that:

(1) The fixed capital cost of the new components exceeded 50 percent of the fixed capital cost that would be required to construct a new paint shop; and

(2) It was technologically and economically feasible for the reconstructed source to meet the relevant standards established by the Administrator pursuant to section 112 of the Clean Air Act (CAA).

(g) An affected source is existing if it is not new or reconstructed.

§ 63.3083 When do I have to comply with this subpart?

The date by which you must comply with this subpart is called the compliance date. The compliance date for each type of affected source is specified in paragraphs (a) through (c) of this section. The compliance date begins the initial compliance period during which you conduct the initial compliance demonstrations described in §§ 63.3150, 63.3160, and 63.3170.

(a) For a new or reconstructed affected source, the compliance date is the applicable date in paragraph (a)(1) or (2) of this section:

(1) If the initial startup of your new or reconstructed affected source is before June 25, 2004, the compliance date is June 25, 2004.

(2) If the initial startup of your new or reconstructed affected source occurs after June 25, 2004, the compliance date is the date of initial startup of your affected source.

(b) For an existing affected source, the compliance date is April 26, 2007.

(c) For an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP emissions, the compliance date is specified in paragraphs (c)(1) and (2) of this section.

(1) For any portion of the source that becomes a new or reconstructed affected source subject to this subpart, the compliance date is the date of initial startup of the affected source or June 25, 2004, whichever is later.

(2) For any portion of the source that becomes an existing affected source subject to this subpart, the compliance date is the date 1 year after the area source becomes a major source or April 26, 2007, whichever is later.

(d) You must meet the notification requirements in § 63.3110 according to the dates specified in that section and in subpart A of this part. Some of the notifications must be submitted before the compliance dates described in paragraphs (a) through (c) of this section.

Emission Limitations

§ 63.3090 What emission limits must I meet for a new or reconstructed affected source?

(a) Except as provided in paragraph (b) of this section, you must limit combined organic HAP emissions to the atmosphere from electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) to no more than 0.036 kilogram (kg)/liter (0.30 pound (lb)/gallon (gal)) of coating solids deposited during each month, determined according to the requirements in § 63.3161.

(b) If you meet the operating limits of § 63.3092(a) or (b), you must either meet the emission limits of paragraph (a) of this section or limit combined organic HAP emissions to the atmosphere from primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) to no more than 0.060 kg/liter (0.50 lb/gal) of applied coating solids used during each month, determined according to the requirements in § 63.3171. If you do not have an electrodeposition primer system, you must limit combined organic HAP emissions to the atmosphere from primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) to no more than 0.060 kg/liter (0.50 lb/gal) of applied coating solids used during each month, determined according to the requirements in § 63.3171.

(c) You must limit average organic HAP emissions from all adhesive and sealer materials other than materials used as components of glass bonding systems to no more than 0.010 kg/kg (lb/lb) of adhesive and sealer material used during each month.

(d) You must limit average organic HAP emissions from all deadener materials to no more than 0.010 kg/kg (lb/lb) of deadener material used during each month.

(e) For coatings and thinners used in coating operations added to the affected source pursuant to § 63.3082(c):

(1) Adhesive and sealer materials that are not components of glass bonding systems are subject to and must be included in your demonstration of compliance for paragraph (c) of this section.

(2) Deadener materials are subject to and must be included in your demonstration of compliance for paragraph (d) of this section.

(3) All other coatings and thinners are subject to and must be included in your demonstration of compliance for paragraphs (a) or (b) of this section.

(f) If your facility has multiple paint lines (*e.g.*, two or more totally distinct paint lines each serving a distinct assembly line, or a facility with two or more paint lines sharing the same paint kitchen or mix room), then for the operations addressed in paragraphs (a) and (b) of this section:

(1) You may choose to use a single grouping under paragraph (a) of this section for all of your electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations.

(2) You may choose to use a single grouping under paragraph (b) of this section for all of your primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations as long as each of your electrodeposition primer systems meets the operating limits of § 63.3092(a) or (b).

(3) You may choose to use one or more groupings under paragraph (a) of this section for the electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations from one or more of your paint lines; and one or more groupings under paragraph (b) of this section for the primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations from the remainder of your paint lines, as long as each electrodeposition primer system associated with each paint line you include in a grouping under paragraph (b) of this section meets the operating limits of § 63.3092(a) or (b). For example, if your facility has three paint lines, you may choose to use one grouping under paragraph (a) of this section for two of the paint lines; and a separate grouping under paragraph (b) of this section for the third paint line, as long as the electrodeposition primer system associated with the paint line you include in the grouping under paragraph (b) of this section meets the operating limits of § 63.3092(a) or (b). Alternatively, you may choose to use one grouping for two of the paint lines and a separate grouping of the same type for the third paint line. Again, each electrodeposition primer system associated with each paint line you include in a grouping under paragraph (b) of this section must meet the operating limits of § 63.3092(a) or (b).

(4) You may choose to consider the electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations from each of your paint lines as a separate grouping under either paragraph (a) or paragraph (b) of this section. The electrodeposition primer system associated with each paint line you choose to consider in a grouping under paragraph (b) of this section must meet the operating limits of § 63.3092(a) or (b). For example, if your facility has two paint lines, you may choose to use the grouping under paragraph (a) of this section for one paint line and the grouping under paragraph (b) of this section for the other paint line.

§ 63.3091 What emission limits must I meet for an existing affected source?

(a) Except as provided in paragraph (b) of this section, you must limit combined organic HAP emissions to the atmosphere from electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in

coating operations added to the affected source pursuant to § 63.3082(c) to no more than 0.072 kg/liter (0.60 lb/gal) of coating solids deposited during each month, determined according to the requirements in § 63.3161.

(b) If you meet the operating limits of § 63.3092(a) or (b), you must either meet the emission limits of paragraph (a) of this section or limit combined organic HAP emissions to the atmosphere from primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) to no more than 0.132 kg/liter (1.10 lb/gal) of coating solids deposited during each month, determined according to the requirements in § 63.3171. If you do not have an electrodeposition primer system, you must limit combined organic HAP emissions to the atmosphere from primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) to no more than 0.132 kg/liter (1.10 lb/gal) of coating solids deposited during each month, determined according to the requirements in § 63.3171.

(c) You must limit average organic HAP emissions from all adhesive and sealer materials other than materials used as components of glass bonding systems to no more than 0.010 kg/kg (lb/lb) of adhesive and sealer material used during each month.

(d) You must limit average organic HAP emissions from all deadener materials to no more than 0.010 kg/kg (lb/lb) of deadener material used during each month.

(e) For coatings and thinners used in coating operations added to the affected source pursuant to § 63.3082(c):

(1) Adhesive and sealer materials that are not components of glass bonding systems are subject to and must be included in your demonstration of compliance for paragraph (c) of this section.

(2) Deadener materials are subject to and must be included in your demonstration of compliance for paragraph (d) of this section.

(3) All other coatings and thinners are subject to and must be included in your demonstration of compliance for paragraphs (a) or (b) of this section.

(f) If your facility has multiple paint lines (*e.g.*, two or more totally distinct paint lines each serving a distinct assembly line, or a facility with two or more paint lines sharing the same paint kitchen or mix room), then for the operations addressed in paragraphs (a) and (b) of this section:

(1) You may choose to use a single grouping under paragraph (a) of this section for all of your electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations.

(2) You may choose to use a single grouping under paragraph (b) of this section for all of your primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations, as long as each of your electrodeposition primer systems meets the operating limits of § 63.3092(a) or (b).

(3) You may choose to use one or more groupings under paragraph (a) of this section for the electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations from one or more of your paint lines; and one or more groupings under paragraph (b) of this section for the primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations from the remainder of your paint lines, as long as each electrodeposition primer system associated with each paint line you include in a grouping under paragraph (b) of this section meets the operating limits of § 63.3092(a) or (b). For example, if your facility has three paint lines, you may choose to use one grouping under paragraph (a) of this section for two of the paint lines and a separate grouping under paragraph (b) of this section for the third paint line, as long as the electrodeposition primer system associated with the paint line you include in the grouping under paragraph (b) of this section meets the operating limits of § 63.3092(a) or (b). Alternatively, you may choose to use one grouping for two of the paint lines and a separate grouping of the same type for the third paint line. Again, each electrodeposition primer system associated with each paint line you include in a grouping under paragraph (b) of this section must meet the operating limits of § 63.3092(a) or (b).

(4) You may choose to consider the electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations from each of your paint lines as a separate grouping under either paragraph (a) or paragraph (b) of this section. The electrodeposition primer system associated with each paint line you choose to consider in a grouping under paragraph (b) of this section must meet the operating limits of § 63.3092(a) or (b). For example, if your facility has two paint lines, you may choose to use the grouping under paragraph (a) of this section for one paint line and the grouping under paragraph (b) of this section for the other paint line.

§ 63.3092 How must I control emissions from my electrodeposition primer system if I want to comply with the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive emission limit?

If your electrodeposition primer system meets the requirements of either paragraph (a) or (b) of this section, you may choose to comply with the emission limits of § 63.3090(b) or § 63.3091(b) instead of the emission limits of § 63.3090(a) or § 63.3091(a).

(a) Each individual material added to the electrodeposition primer system contains no more than:

(1) 1.0 percent by weight of any organic HAP; and

(2) 0.10 percent by weight of any organic HAP which is an Occupational Safety and Health Administration (OSHA)-defined carcinogen as specified in 29 CFR 1910.1200(d)(4).

(b) Emissions from all bake ovens used to cure electrodeposition primers must be captured and ducted to a control device having a destruction or removal efficiency of at least 95 percent.

§ 63.3093 What operating limits must I meet?

(a) You are not required to meet any operating limits for any coating operation(s) without add-on controls.

(b) Except as provided in paragraph (d) of this section, for any controlled coating operation(s), you must meet the operating limits specified in Table 1 to this subpart. These operating limits apply to the emission capture and add-on control systems on the coating operation(s) for which you use this option, and you must establish the operating limits during the performance test according to the requirements in § 63.3167. You must meet the operating limits at all times after you establish them.

(c) If you choose to meet the emission limitations of § 63.3092(b) and the emission limits of § 63.3090(b) or § 63.3091(b), then except as provided in paragraph (d) of this section, you must operate the capture system and add-on control device used to capture and control emissions from your

electrodeposition primer bake oven(s) so that they meet the operating limits specified in Table 1 to this subpart.

(d) If you use an add-on control device other than those listed in Table 1 to this subpart, or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of alternative monitoring under § 63.8(f).

§ 63.3094 What work practice standards must I meet?

(a) [Reserved]

(b) You must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by, all coating operations for which emission limits are established under § 63.3090(a) through (d) or § 63.3091(a) through (d). The plan must specify practices and procedures to ensure that, at a minimum, the elements specified in paragraphs (b)(1) through (5) of this section are implemented.

(1) All organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be stored in closed containers.

(2) The risk of spills of organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be minimized.

(3) Organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.

(4) Mixing vessels, other than day tanks equipped with continuous agitation systems, which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents.

(5) Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment.

(c) You must develop and implement a work practice plan to minimize organic HAP emissions from cleaning and from purging of equipment associated with all coating operations for which emission limits are established under § 63.3090(a) through (d) or § 63.3091(a) through (d).

(1) The plan shall, at a minimum, address each of the operations listed in paragraphs (c)(1)(i) through (viii) of this section in which you use organic-HAP-containing materials or in which there is a potential for emission of organic HAP.

(i) The plan must address vehicle body wipe emissions through one or more of the techniques listed in paragraphs (c)(1)(i)(A) through (E) of this section, or an approved alternative.

(A) Use of solvent-moistened wipes.

(B) Keeping solvent containers closed when not in use.

(C) Keeping wipe disposal/recovery containers closed when not in use.

(D) Use of tack-wipes.

(E) Use of solvents containing less than 1 percent organic HAP by weight.

(ii) The plan must address coating line purging emissions through one or more of the techniques listed in paragraphs (c)(1)(ii)(A) through (D) of this section, or an approved alternative.

(A) Air/solvent push-out.

(B) Capture and reclaim or recovery of purge materials (excluding applicator nozzles/tips).

(C) Block painting to the maximum extent feasible.

(D) Use of low-HAP or no-HAP solvents for purge.

(iii) The plan must address emissions from flushing of coating systems through one or more of the techniques listed in paragraphs (c)(1)(iii)(A) through (D) of this section, or an approved alternative.

(A) Keeping solvent tanks closed.

(B) Recovering and recycling solvents.

(C) Keeping recovered/recycled solvent tanks closed.

(D) Use of low-HAP or no-HAP solvents.

(iv) The plan must address emissions from cleaning of spray booth grates through one or more of the techniques listed in paragraphs (c)(1)(iv)(A) through (E) of this section, or an approved alternative.

(A) Controlled burn-off.

(B) Rinsing with high-pressure water (in place).

(C) Rinsing with high-pressure water (off line).

(D) Use of spray-on masking or other type of liquid masking.

(E) Use of low-HAP or no-HAP content cleaners.

(v) The plan must address emissions from cleaning of spray booth walls through one or more of the techniques listed in paragraphs (c)(1)(v)(A) through (E) of this section, or an approved alternative.

(A) Use of masking materials (contact paper, plastic sheet, or other similar type of material).

(B) Use of spray-on masking.

(C) Use of rags and manual wipes instead of spray application when cleaning walls.

(D) Use of low-HAP or no-HAP content cleaners.

(E) Controlled access to cleaning solvents.

(vi) The plan must address emissions from cleaning of spray booth equipment through one or more of the techniques listed in paragraphs (c)(1)(vi)(A) through (E) of this section, or an approved alternative.

(A) Use of covers on equipment (disposable or reusable).

(B) Use of parts cleaners (off-line submersion cleaning).

(C) Use of spray-on masking or other protective coatings.

(D) Use of low-HAP or no-HAP content cleaners.

(E) Controlled access to cleaning solvents.

(vii) The plan must address emissions from cleaning of external spray booth areas through one or more of the techniques listed in paragraphs (c)(1)(vii)(A) through (F) of this section, or an approved alternative.

(A) Use of removable floor coverings (paper, foil, plastic, or similar type of material).

(B) Use of manual and/or mechanical scrubbers, rags, or wipes instead of spray application.

(C) Use of shoe cleaners to eliminate coating track-out from spray booths.

(D) Use of booties or shoe wraps.

(E) Use of low-HAP or no-HAP content cleaners.

(F) Controlled access to cleaning solvents.

(viii) The plan must address emissions from housekeeping measures not addressed in paragraphs (c)(1)(i) through (vii) of this section through one or more of the techniques listed in paragraphs (c)(1)(viii)(A) through (C) of this section, or an approved alternative.

(A) Keeping solvent-laden articles (cloths, paper, plastic, rags, wipes, and similar items) in covered containers when not in use.

(B) Storing new and used solvents in closed containers.

(C) Transferring of solvents in a manner to minimize the risk of spills.

(2) Notwithstanding the requirements of paragraphs (c)(1)(i) through (viii) of this section, if the type of coatings used in any facility with surface coating operations subject to the requirements of this section are of such a nature that the need for one or more of the practices specified under paragraphs (c)(1)(i) through (viii) is eliminated, then the plan may include approved alternative or equivalent measures that are applicable or necessary during cleaning of storage, conveying, and application equipment.

(d) As provided in § 63.6(g), we, the Environmental Protection Agency (EPA), may choose to grant you permission to use an alternative to the work practice standards in this section.

(e) The work practice plans developed in accordance with paragraphs (b) and

(c) of this section are not required to be incorporated in your title V permit. Any revisions to the work practice plans developed in accordance with paragraphs (b) and (c) of this section do not constitute revisions to your title V permit.

(f) Copies of the current work practice plans developed in accordance with paragraphs (b) and (c) of this section, as well as plans developed within the preceding 5 years must be available on-site for inspection and copying by the permitting authority.

General Compliance Requirements

§ 63.3100 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations in §§ 63.3090 and 63.3091 at all times, as determined on a monthly basis.

(b) The coating operations must be in compliance with the operating limits for emission capture systems and add-on control devices required by § 63.3093 at all times except during periods of startup, shutdown, and malfunction.

(c) You must be in compliance with the work practice standards in § 63.3094 at all times.

(d) You must always operate and maintain your affected source including all air pollution control and monitoring equipment you use for purposes of complying with this subpart according to the provisions in § 63.6(e)(1)(i).

(e) You must maintain a log detailing the operation and maintenance of the emission capture systems, add-on control devices, and continuous parameter monitoring systems (CPMS) during the period between the compliance date specified for your affected source in § 63.3083 and the date when the initial emission capture system and add-on control device performance tests have been completed, as specified in § 63.3160.

(f) If your affected source uses emission capture systems and add-on control devices, you must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in § 63.6(e)(3). The SSMP must address startup, shutdown, and corrective actions in the event of a malfunction of the emission capture system or the add-on control devices.

§ 63.3101 What parts of the General Provisions apply to me?

Table 2 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

Notifications, Reports, and Records

§ 63.3110 What notifications must I submit?

(a) *General.* You must submit the notifications in §§ 63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (e) and (h) that apply to you by the dates specified in those sections, except as provided in paragraphs (b) and (c) of this section.

(b) *Initial notification.* You must submit the Initial Notification required by § 63.9(b) for a new or reconstructed affected source no later than 120 days after initial startup or 120 days after June 25, 2004, whichever is later. For an existing affected source, you must submit the Initial Notification no later than 1 year after April 26, 2004. Existing sources that have previously submitted notifications of applicability of this rule pursuant to § 112(j) of the CAA are not required to submit an initial notification under § 63.9(b) except to identify and describe all additions to the affected source made pursuant to § 63.3082(c).

(c) *Notification of compliance status.* If you have an existing source, you must submit the Notification of Compliance Status required by § 63.9(h) no later than 30 days following the end of the initial compliance period described in § 63.3160. If you have a new source, you must submit the Notification of Compliance Status required by § 63.9(h) no later than 60 days after the first day of the first full month following completion of all applicable performance tests. The Notification of Compliance Status must contain the information specified in paragraphs (c)(1) through (12) of this section and in § 63.9(h).

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of the report and beginning and ending dates of the reporting period. The reporting period is the initial compliance period described in § 63.3160 that applies to your affected source.

(4) Identification of the compliance option specified in § 63.3090(a) or (b) or § 63.3091(a) or (b) that you used for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) in the affected source during the initial compliance period.

(5) Statement of whether or not the affected source achieved the emission limitations for the initial compliance period.

(6) If you had a deviation, include the information in paragraphs (c)(6)(i) and (ii) of this section.

(i) A description and statement of the cause of the deviation.

(ii) If you failed to meet any of the applicable emission limits in § 63.3090 or § 63.3091, include all the calculations you used to determine the applicable emission rate or applicable average organic HAP content for the emission limit(s) that you failed to meet. You do not need to submit information provided by the materials suppliers or manufacturers, or test reports.

(7) All data and calculations used to determine the monthly average mass of organic HAP emitted per volume of applied coating solids from:

(i) The combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) if you were eligible for and chose to comply with the emission limits of § 63.3090(b) or § 63.3091(b); or

(ii) The combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c).

(8) All data and calculations used to determine compliance with the separate limits for electrodeposition primer in § 63.3092(a) or (b) if you were eligible for and chose to comply with the emission limits of § 63.3090(b) or § 63.3091(b).

(9) All data and calculations used to determine the monthly mass average HAP content of materials subject to the emission limits of § 63.3090(c) or (d) or the emission limits of § 63.3091(c) or (d).

(10) All data and calculations used to determine the transfer efficiency for primer-surfacer and topcoat coatings, and for all coatings, except for deadener and for adhesive and sealer that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c).

(11) You must include the information specified in paragraphs (c)(11)(i) through (iii) of this section.

(i) For each emission capture system, a summary of the data and copies of the calculations supporting the determination that the emission capture system is a permanent total enclosure (PTE) or a measurement of the emission capture system efficiency. Include a description of the procedure followed for measuring capture efficiency, summaries of any capture efficiency tests conducted, and any calculations supporting the capture efficiency determination. If you use the data quality objective (DQO) or lower confidence limit (LCL) approach, you must also include the statistical calculations to show you meet the DQO or LCL criteria in appendix A to subpart KK of this part. You do not need to submit complete test reports.

(ii) A summary of the results of each add-on control device performance test. You do not need to submit complete test reports unless requested.

(iii) A list of each emission capture system's and add-on control device's operating limits and a summary of the data used to calculate those limits.

(12) A statement of whether or not you developed and implemented the work practice plans required by § 63.3094(b) and (c).

§ 63.3120 What reports must I submit?

(a) *Semiannual compliance reports.* You must submit semiannual compliance reports for each affected source according to the requirements of paragraphs (a)(1) through (9) of this section. The semiannual compliance reporting requirements may be satisfied by reports required under other parts of the CAA, as specified in paragraph (a)(2) of this section.

(1) *Dates.* Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must prepare and submit each semiannual compliance report according to the dates specified in paragraphs (a)(1)(i) through (iv) of this section.

(i) The first semiannual compliance report must cover the first semiannual reporting period which begins the day after the end of the initial compliance period described in § 63.3160 that applies to your affected source and ends on June 30 or December 31, whichever occurs first following the end of the initial compliance period.

(ii) Each subsequent semiannual compliance report must cover the subsequent semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(iii) Each semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(iv) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the date specified in paragraph (a)(1)(iii) of this section.

(2) *Inclusion with title V report.* If you have obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71, you must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If you submit a semiannual compliance report pursuant to this section along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the semiannual compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice in this subpart, its submission shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a semiannual compliance report shall not otherwise affect any obligation you may have to report deviations from permit requirements to the permitting authority.

(3) *General requirements.* The semiannual compliance report must contain the information specified in paragraphs (a)(3)(i) through (iv) of this section, and the information specified in paragraphs (a)(4) through (9) and (c)(1) of this section that are applicable to your affected source.

(i) Company name and address.

(ii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(iii) Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31.

(iv) Identification of the compliance option specified in § 63.3090(b) or § 63.3091(b) that you used for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) in the affected source during the initial compliance period.

(4) *No deviations.* If there were no deviations from the emission limitations, operating limits, or work practices in §§ 63.3090, 63.3091, 63.3092, 63.3093, and 63.3094 that apply to you, the semiannual compliance report must include a statement that there were no deviations from the emission limitations during the reporting period. If you used control devices to comply with the emission limits, and there were no periods during which the CPMS were out of control as specified in § 63.8(c)(7), the semiannual compliance report must include a statement that there were no periods during which the CPMS were out of control during the reporting period.

(5) *Deviations: adhesive, sealer, and deadener.* If there was a deviation from the applicable emission limits in § 63.3090(c) and (d) or § 63.3091(c) and (d), the semiannual compliance report must contain the information in paragraphs (a)(5)(i) through (iv) of this section.

(i) The beginning and ending dates of each month during which the monthly average organic HAP content exceeded the applicable emission limit in § 63.3090(c) and (d) or § 63.3091(c) and (d).

(ii) The volume and organic HAP content of each material used that is subject to the applicable organic HAP content limit.

(iii) The calculation used to determine the average monthly organic HAP content for the month in which the deviation occurred.

(iv) The reason for the deviation.

(6) *Deviations: combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer and glass bonding adhesive, or combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c).* If there was a deviation from the applicable emission limits in § 63.3090(a) or (b) or § 63.3091(a) or (b),

the semiannual compliance report must contain the information in paragraphs (a)(6)(i) through (xiv) of this section.

(i) The beginning and ending dates of each month during which the monthly organic HAP emission rate from combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) exceeded the applicable emission limit in § 63.3090(a) or § 63.3091(a); or the monthly organic HAP emission rate from combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) exceeded the applicable emission limit in § 63.3090(b) or § 63.3091(b).

(ii) The calculation used to determine the monthly organic HAP emission rate in accordance with § 63.3161 or § 63.3171. You do not need to submit the background data supporting these calculations, for example information provided by materials suppliers or manufacturers, or test reports.

(iii) The date and time that any malfunctions of the capture system or add-on control devices used to control emissions from these operations started and stopped.

(iv) A brief description of the CPMS.

(v) The date of the latest CPMS certification or audit.

(vi) The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.

(vii) The date and time period that each CPMS was out of control, including the information in § 63.8(c)(8).

(viii) The date and time period of each deviation from an operating limit in Table 1 to this subpart; date and time period of each bypass of an add-on control device; and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(ix) A summary of the total duration and the percent of the total source operating time of the deviations from each operating limit in Table 1 to this subpart and the bypass of each add-on control device during the semiannual reporting period.

(x) A breakdown of the total duration of the deviations from each operating limit in Table 1 to this subpart and bypasses of each add-on control device during the semiannual reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(xi) A summary of the total duration and the percent of the total source operating time of the downtime for each CPMS during the semiannual reporting period.

(xii) A description of any changes in the CPMS, coating operation, emission capture system, or add-on control devices since the last semiannual reporting period.

(xiii) For each deviation from the work practice standards, a description of the deviation, the date and time period of the deviation, and the actions you took to correct the deviation.

(xiv) A statement of the cause of each deviation.

(7) *Deviations: separate electrodeposition primer organic HAP content limit.* If you used the separate electrodeposition primer organic HAP content limits in § 63.3092(a), and there was a deviation from these limits, the semiannual compliance report must contain the information in paragraphs (a)(7)(i) through (iii) of this section.

(i) Identification of each material used that deviated from the emission limit, and the dates and time periods each was used.

(ii) The determination of mass fraction of each organic HAP for each material identified in paragraph (a)(7)(i) of this section. You do not need to submit background data supporting this calculation, for example, information provided by material suppliers or manufacturers, or test reports.

(iii) A statement of the cause of each deviation.

(8) *Deviations: separate electrodeposition primer bake oven capture and control limitations.* If you used the separate electrodeposition primer bake oven capture and control limitations in § 63.3092(b), and there was a deviation from these limitations, the semiannual compliance report must contain the information in paragraphs (a)(8)(i) through (xii) of this section.

(i) The beginning and ending dates of each month during which there was a deviation from the separate electrodeposition primer bake oven capture and control limitations in § 63.3092(b).

(ii) The date and time that any malfunctions of the capture systems or control devices used to control emissions from the electrodeposition primer bake oven started and stopped.

(iii) A brief description of the CPMS.

(iv) The date of the latest CPMS certification or audit.

(v) The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.

(vi) The date, time, and duration that each CPMS was out of control, including the information in § 63.8(c)(8).

(vii) The date and time period of each deviation from an operating limit in Table 1 to this subpart; date and time period of each bypass of an add-on control device; and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(viii) A summary of the total duration and the percent of the total source operating time of the deviations from each operating limit in Table 1 to this subpart and the bypasses of each add-on control device during the semiannual reporting period.

(ix) A breakdown of the total duration of the deviations from each operating limit in Table 1 to this subpart and bypasses of each add-on control device during the semiannual reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(x) A summary of the total duration and the percent of the total source operating time of the downtime for each CPMS during the semiannual reporting period.

(xi) A description of any changes in the CPMS, coating operation, emission capture system, or add-on control devices since the last semiannual reporting period.

(xii) A statement of the cause of each deviation.

(9) *Deviations: work practice plans.* If there was a deviation from an applicable work practice plan developed in accordance with § 63.3094(b) or (c), the semiannual compliance report must contain the information in paragraphs (a)(9)(i) through (iii) of this section.

(i) The time period during which each deviation occurred.

(ii) The nature of each deviation.

(iii) The corrective action(s) taken to bring the applicable work practices into compliance with the work practice plan.

(b) *Performance test reports.* If you use add-on control devices, you must submit reports of performance test results for emission capture systems and add-on control devices no later than 60 days after completing the tests as specified in § 63.10(d)(2). You must submit reports of transfer efficiency

tests no later than 60 days after completing the tests as specified in § 63.10(d)(2).

(c) *Startup, shutdown, and malfunction reports.* If you used add-on control devices and you had a startup, shutdown, or malfunction during the semiannual reporting period, you must submit the reports specified in paragraphs (c)(1) and (2) of this section.

(1) If your actions were consistent with your SSMP, you must include the information specified in § 63.10(d) in the semiannual compliance report required by paragraph (a) of this section.

(2) If your actions were not consistent with your SSMP, you must submit an immediate startup, shutdown, and malfunction report as described in paragraphs (c)(2)(i) and (ii) of this section.

(i) You must describe the actions taken during the event in a report delivered by facsimile, telephone, or other means to the Administrator within 2 working days after starting actions that are inconsistent with the plan.

(ii) You must submit a letter to the Administrator within 7 working days after the end of the event, unless you have made alternative arrangements with the Administrator as specified in § 63.10(d)(5)(ii). The letter must contain the information specified in § 63.10(d)(5)(ii).

§ 63.3130 What records must I keep?

You must collect and keep records of the data and information specified in this section. Failure to collect and keep these records is a deviation from the applicable standard.

(a) A copy of each notification and report that you submitted to comply with this subpart, and the documentation supporting each notification and report.

(b) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP, the density and the volume fraction of coating solids for each coating, the mass fraction of organic HAP and the density for each thinner, and the mass fraction of organic HAP for each cleaning material. If you conducted testing to determine mass fraction of organic HAP, density, or volume fraction of coating solids, you must keep a copy of the complete test report. If you use information provided to you by the manufacturer or supplier of the material that was based on testing, you must keep the summary sheet of results provided to you by the manufacturer or supplier. If you use the results of an analysis conducted by an outside testing lab, you must keep a copy of the test report. You are not required to obtain the test report or other supporting documentation from the manufacturer or supplier.

(c) For each month, the records specified in paragraphs (c)(1) through (6) of this section.

(1) For each coating used for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations and for each coating, except for deadener and for adhesive and sealer that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c), a record of the volume used in each month, the mass fraction organic HAP content, the density, and the volume fraction of solids.

(2) For each thinner used for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations and for each thinner, except for thinner used for deadener and for adhesive and sealer that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c), a record of the volume used in each month, the mass fraction organic HAP content, and the density.

(3) For each deadener material and for each adhesive and sealer material, a record of the mass used in each month and the mass organic HAP content.

(4) A record of the calculation of the organic HAP emission rate for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) for each month if subject to the emission limit of § 63.3090(a) or § 63.3091(a). This record must include all raw data, algorithms, and intermediate calculations. If the guidelines presented in the "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA–450/3–88–018 (Docket ID No. OAR–2002–0093 and Docket ID No. A–2001–22), are used, you must keep records of all data input to this protocol. If these data are maintained as electronic files, the electronic files, as well as any paper copies must be maintained. These data must be provided to the permitting authority on request on paper, and in (if calculations are done electronically) electronic form.

(5) A record of the calculation of the organic HAP emission rate for primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) for each month if subject to the emission limit of § 63.3090(b) or § 63.3091(b), and a record of the weight fraction of each organic HAP in each material added to the electrodeposition primer system if subject to the limitations of § 63.3092(a). This record must include all raw data, algorithms, and intermediate calculations. If the guidelines presented in the "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA–450/3–88–018 (Docket ID No. OAR–2002–0093 and Docket ID No. A–2001–22), are used, you must keep records of all data input to this protocol. If these data are maintained as electronic files, the electronic files, as well as any paper copies must be maintained. These data must be provided to the permitting authority on request on paper, and in (if calculations are done electronically) electronic form.

(6) A record, for each month, of the calculation of the average monthly mass organic HAP content of:

(i) Sealers and adhesives; and

(ii) Deadeners.

(d) A record of the name and volume of each cleaning material used during each month.

(e) A record of the mass fraction of organic HAP for each cleaning material used during each month.

(f) A record of the density for each cleaning material used during each month.

(g) A record of the date, time, and duration of each deviation, and for each deviation, a record of whether the deviation occurred during a period of startup, shutdown, or malfunction.

(h) The records required by § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(i) For each capture system that is a PTE, the data and documentation you used to support a determination that the capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and has a capture efficiency of 100 percent, as specified in § 63.3165(a).

(j) For each capture system that is not a PTE, the data and documentation you used to determine capture efficiency according to the requirements specified in §§ 63.3164 and 63.3165(b) through (g), including the records specified in paragraphs (j)(1) through (4) of this section that apply to you.

(1) *Records for a liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* Records of the mass of total volatile hydrocarbon (TVH), as measured by Method 204A or F of appendix M to 40 CFR part 51, for each material used in the coating operation, and the total TVH for all materials used during each capture efficiency test run, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run, as measured by Method 204D or E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(2) *Records for a gas-to-gas protocol using a temporary total enclosure or a building enclosure.* Records of the mass of TVH emissions captured by the emission capture system, as measured by Method 204B or C of appendix M to 40 CFR part 51, at the inlet to the add-on control device, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run, as measured by Method 204D or E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(3) *Records for panel tests.* Records needed to document a capture efficiency determination using a panel test as described in § 63.3165(e) and (g), including a copy of the test report and calculations performed to convert the panel test results to percent capture efficiency values.

(4) *Records for an alternative protocol.* Records needed to document a capture efficiency determination using an alternative method or protocol, as specified in § 63.3165(f), if applicable.

(k) The records specified in paragraphs (k)(1) and (2) of this section for each add-on control device organic HAP destruction or removal efficiency determination as specified in § 63.3166.

(1) Records of each add-on control device performance test conducted according to §§ 63.3164 and 63.3166.

(2) Records of the coating operation conditions during the add-on control device performance test showing that the performance test was conducted under representative operating conditions.

(l) Records of the data and calculations you used to establish the emission capture and add-on control device operating limits as specified in § 63.3167 and to document compliance with the operating limits as specified in Table 1 to this subpart.

(m) Records of the data and calculations you used to determine the transfer efficiency for primer-surfacer and topcoat coatings and for all coatings, except for deadener and for adhesive and sealer that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c).

(n) A record of the work practice plans required by § 63.3094(b) and (c) and documentation that you are implementing the plans on a continuous basis. Appropriate documentation may include operational and maintenance records, records of documented inspections, and records of internal audits.

(o) Records pertaining to the design and operation of control and monitoring systems must be maintained on-site for the life of the equipment in a location readily available to plant operators and inspectors.

§ 63.3131 In what form and for how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review according to § 63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database.

(b) Except as provided in § 63.3130(o), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record, as specified in § 63.10(b)(1).

(c) Except as provided in § 63.3130(o), you must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to § 63.10(b)(1). You may keep the records off site for the remaining 3 years.

Compliance Requirements for Adhesive, Sealer, and Deadener

§ 63.3150 By what date must I conduct the initial compliance demonstration?

You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3151. The initial compliance period begins on the applicable compliance date specified in § 63.3083 and ends on the last day of the month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next month. You must determine the mass average organic HAP content of the materials used each month for each group of materials for which an emission limitation is established in § 63.3090(c) and (d) or § 63.3091(c) and (d). The initial compliance demonstration includes the calculations according to § 63.3151 and supporting documentation showing that during the initial compliance period, the mass average organic HAP content for each group of materials was equal to or less than the applicable emission limits in § 63.3090(c) and (d) or § 63.3091(c) and (d).

§ 63.3151 How do I demonstrate initial compliance with the emission limitations?

You must separately calculate the mass average organic HAP content of the materials used during the initial compliance period for each group of materials for which an emission limit is established in § 63.3090(c) and (d) or § 63.3091(c) and (d). If every individual material used within a group of materials meets the emission limit for that group of materials, you may demonstrate compliance with that emission limit by documenting the name and the organic HAP content of each material used during the initial compliance period. If any individual material used within a group of materials exceeds the emission limit for that group of materials, you must determine the mass average organic HAP content according to the procedures of paragraph (d) of this section.

(a) *Determine the mass fraction of organic HAP for each material used.* You must determine the mass fraction of organic HAP for each material used during the compliance period by using one of the options in paragraphs (a)(1) through (5) of this section.

(1) *Method 311 (appendix A to 40 CFR part 63).* You may use Method 311 for determining the mass fraction of organic HAP. Use the procedures

specified in paragraphs (a)(1)(i) and (ii) of this section when performing a Method 311 test.

(i) Count each organic HAP that is measured to be present at 0.1 percent by mass or more for OSHA-defined carcinogens, as specified in 29 CFR 1910.1200(d)(4), and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is measured to be 0.5 percent of the material by mass, you do not have to count it. Express the mass fraction of each organic HAP you count as a value truncated to four places after the decimal point (*e.g.*, 0.3791).

(ii) Calculate the total mass fraction of organic HAP in the test material by adding up the individual organic HAP mass fractions and truncating the result to three places after the decimal point (*e.g.*, 0.7638 truncates to 0.763).

(2) *Method 24 (appendix A to 40 CFR part 60).* For coatings, you may use Method 24 to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for mass fraction of organic HAP.

(3) *Alternative method.* You may use an alternative test method for determining the mass fraction of organic HAP once the Administrator has approved it. You must follow the procedure in § 63.7(f) to submit an alternative test method for approval.

(4) *Information from the supplier or manufacturer of the material.* You may rely on information other than that generated by the test methods specified in paragraphs (a)(1) through (3) of this section, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens, as specified in 29 CFR 1910.1200(d)(4), and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is 0.5 percent of the material by mass, you do not have to count it. If there is a disagreement between such information and results of a test conducted according to paragraphs (a)(1) through (3) of this section, then the test method results will take precedence, unless after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the facility's data are correct.

(5) *Solvent blends.* Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP which must be counted toward the total organic HAP mass fraction of the materials. When neither test data nor manufacturer's data for solvent blends are available, you may use the default values for the mass fraction of organic HAP in the solvent blends listed in Table 3 or 4 to this subpart. If you use the tables, you must use the values in Table 3 for all solvent blends that match Table 3 entries, and you may only use Table 4 if the solvent blends in the materials you use do not match any of the solvent blends in Table 3 and you only know whether the blend is aliphatic or aromatic. However, if the results of a Method 311 test indicate higher values than those listed on Table 3 or 4 to this subpart, the Method 311 results will take precedence, unless after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the data from Table 3 or 4 are correct.

(b) *Determine the density of each material used.* Determine the density of each material used during the compliance period from test results using ASTM Method D1475–98 (Reapproved 2003), "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (incorporated by reference, see § 63.14), or for powder coatings, test method A or test method B of ASTM Method D5965–02, "Standard Test Methods for Specific Gravity of Coating Powders," (incorporated by reference, see § 63.14), or information from the supplier or manufacturer of the material. If there is disagreement between ASTM Method D1475–98 (Reapproved 2003) test results or ASTM Method D5965–02, test method A or test method B test results and the supplier's or manufacturer's information, the test results will take precedence unless after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the facility's data are correct.

(c) *Determine the volume of each material used.* Determine the volume (liters) of each material used during each month by measurement or usage records.

(d) *Determine the mass average organic HAP content for each group of materials.* Determine the mass average organic HAP content of the materials used during the initial compliance period for each group of materials for which an emission limit is established in § 63.3090(c) and (d) or § 63.3091(c) and (d), using Equations 1 and 2 of this section.

(1) Calculate the mass average organic HAP content of adhesive and sealer materials other than components of the glass bonding system used in the initial compliance period using Equation 1 of this section:

$$C_{avg,as} = \frac{\sum_{j=1}^{r} \left(Vol_{as,j}\right)\left(D_{as,j}\right)\left(W_{as,j}\right)}{\sum_{j=1}^{r} \left(Vol_{as,j}\right)\left(D_{as,j}\right)} \quad \text{(Eq. 1)}$$

Where:

$C_{avg,as}$ = Mass average organic HAP content of adhesives and sealer materials used, kg/kg.

$Vol_{as,j}$ = Volume of adhesive or sealer material, j, used, liters.

$D_{as,j}$ = Density of adhesive or sealer material, j, used, kg per liter.

$W_{as,j}$ = Mass fraction of organic HAP in adhesive or sealer material, j, kg/kg.

r = Number of adhesive and sealer materials used.

(2) Calculate the mass average organic HAP content of deadener materials used in the initial compliance period using Equation 2 of this section:

$$C_{avg,d} = \frac{\sum_{m=1}^{s} (Vol_{d,m})(D_{d,m})(W_{d,m})}{\sum_{m=1}^{s} (Vol_{d,m})(D_{d,m})} \quad \text{(Eq. 2)}$$

Where:

$C_{avg,d}$ = Mass average organic HAP content of deadener material used, kg/kg.

$Vol_{d,m}$ = Volume of deadener material, m, used, liters.

$D_{d,m}$ = Density of deadener material, m, used, kg per liter.

$W_{d,m}$ = Mass fraction of organic HAP in deadener material, m, kg/kg.

s = Number of deadener materials used.

(e) *Compliance demonstration.* The mass average organic HAP content for the compliance period must be less than or equal to the applicable emission limit in § 63.3090(c) and (d) or § 63.3091(c) and (d). You must keep all records as required by §§ 63.3130 and 63.3131. As part of the Notification of Compliance Status required by § 63.3110, you must submit a statement that the coating operations were in compliance with the emission limitations during the initial compliance period because the mass average organic HAP content was less than or equal to the applicable emission limits in § 63.3090(c) and (d) or § 63.3091(c) and (d), determined according to this section.

§ 63.3152 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance, the mass average organic HAP content for each compliance period, determined according to § 63.3151(a) through (d), must be less than or equal to the applicable emission limit in § 63.3090(c) and (d) or § 63.3091(c) and (d). A compliance period consists of 1 month. Each month after the end of the initial compliance period described in § 63.3150 is a compliance period consisting of that month.

(b) If the mass average organic HAP emission content for any compliance period exceeds the applicable emission limit in § 63.3090(c) and (d) or § 63.3091(c) and (d), this is a deviation from the emission limitations for that compliance period and must be reported as specified in §§ 63.3110(c)(6) and 63.3120(a)(5).

(c) You must maintain records as specified in §§ 63.3130 and 63.3131.

Compliance Requirements for the Combined Electrodeposition Primer, Primer-Surfacer, Topcoat, Final Repair, Glass Bonding Primer, and Glass Bonding Adhesive Emission Limitations

§ 63.3160 By what date must I conduct performance tests and other initial compliance demonstrations?

(a) *New and reconstructed affected sources.* For a new or reconstructed affected source, you must meet the requirements of paragraphs (a)(1) through (4) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in § 63.3083. You must conduct a performance test of each capture system and add-on control device according to §§ 63.3164 through 63.3166 and establish the operating limits required by § 63.3093 no later than 180 days after the applicable compliance date specified in § 63.3083.

(2) You must develop and begin implementing the work practice plans required by § 63.3094(b) and (c) no later than the compliance date specified in § 63.3083.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3161. The initial compliance period begins on the applicable compliance date specified in § 63.3083 and ends on the last day of the month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next month. You must determine the mass of organic HAP emissions and volume of coating solids deposited in the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§ 63.3164 through 63.3166; supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the emission limit in § 63.3090(a); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.3168; and documentation of whether you developed and implemented the work practice plans required by § 63.3094(b) and (c).

(4) You do not need to comply with the operating limits for the emission capture system and add-on control device required by § 63.3093 until after you have completed the performance tests specified in paragraph (a)(1) of this section. Instead, you must maintain a log detailing the operation and maintenance of the emission capture system, add-on control device, and CPMS during the period between the compliance date and the performance test. You must begin complying with the operating limits for your affected source on the date you complete the performance tests specified in paragraph (a)(1) of this section.

(b) *Existing affected sources.* For an existing affected source, you must meet the requirements of paragraphs (b)(1) through (3) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in § 63.3083. You must conduct a performance test of each capture system and add-on control device according to the procedures in §§ 63.3164 through 63.3166 and establish the operating limits required by § 63.3093 no later than the compliance date specified in § 63.3083.

(2) You must develop and begin implementing the work practice plans required by § 63.3094(b) and (c) no later than the compliance date specified in § 63.3083.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3161. The initial compliance period begins on the applicable compliance date specified in § 63.3083 and ends on the last day of the month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next month. You must determine the mass of organic HAP emissions and volume of coating solids deposited during the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§ 63.3164 through 63.3166;

supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the emission limits in § 63.3091(a); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.3168; and documentation of whether you developed and implemented the work practice plans required by § 63.3094(b) and (c).

(c) You are not required to conduct an initial performance test to determine capture efficiency or destruction efficiency of a capture system or control device if you receive approval to use the results of a performance test that has been previously conducted on that capture system (either a previous stack test or a previous panel test) or control device. You are not required to conduct an initial test to determine transfer efficiency if you receive approval to use the results of a test that has been previously conducted. Any such previous tests must meet the conditions described in paragraphs (c)(1) through (3) of this section.

(1) The previous test must have been conducted using the methods and conditions specified in this subpart.

(2) Either no process or equipment changes have been made since the previous test was performed or the owner or operator must be able to demonstrate that the results of the performance test reliably demonstrate compliance despite process or equipment changes.

(3) Either the required operating parameters were established in the previous test or sufficient data were collected in the previous test to establish the required operating parameters.

§ 63.3161 How do I demonstrate initial compliance?

(a) You must meet all of the requirements of this section to demonstrate initial compliance. To demonstrate initial compliance, the organic HAP emissions from the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) must meet the applicable emission limitation in § 63.3090(a) or § 63.3091(a).

(b) *Compliance with operating limits.* Except as provided in § 63.3160(a)(4), you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by § 63.3093, using the procedures specified in §§ 63.3167 and 63.3168.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plans required by § 63.3094(b) and (c) during the initial compliance period, as specified in § 63.3130.

(d) *Compliance with emission limits.* You must follow the procedures in paragraphs (e) through (o) of this section to demonstrate compliance with the applicable emission limit in § 63.3090(a) or § 63.3091(a). You may also use the guidelines presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA–450/3–88–018 (Docket ID No. OAR–2002–0093 and Docket ID No. A–2001–22) in making this demonstration.

(e) *Determine the mass fraction of organic HAP, density and volume used.* Follow the procedures specified in § 63.3151(a) through (c) to determine the mass fraction of organic HAP and the density and volume of each coating and thinner used during each month.

(f) *Determine the volume fraction of coating solids for each coating.* You must determine the volume fraction of coating solids (liter of coating solids per liter of coating) for each coating used during the compliance period by a test or by information provided by the supplier or the manufacturer of the material, as specified in paragraphs (f)(1) and (2) of this section. If test results obtained according to paragraph (f)(1) of this section do not agree with the information obtained under paragraph (f)(2) of this section, the test results will take precedence unless after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the facility's data are correct.

(1) *ASTM Method D2697–86 (Reapproved 1998) or ASTM Method D6093–97 (Reapproved 2003).* You may use ASTM Method D2697–86 (Reapproved 1998), "Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings" (incorporated by reference, see § 63.14), or ASTM Method D6093–97 (Reapproved 2003), "Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer" (incorporated by reference, see § 63.14), to determine the volume fraction of coating solids for each coating. Divide the nonvolatile volume percent obtained with the methods by 100 to calculate volume fraction of coating solids.

(2) *Information from the supplier or manufacturer of the material.* You may obtain the volume fraction of coating solids for each coating from the supplier or manufacturer.

(g) *Determine the transfer efficiency for each coating.* You must determine the transfer efficiency for each primer-surfacer and topcoat coating, and for all coatings, except for deadener and for adhesive and sealer that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) using ASTM Method D5066–91 (Reapproved 2001), "Standard Test Method for Determination of the Transfer Efficiency Under Production Conditions for Spray Application of Automotive Paints-Weight Basis" (incorporated by reference, see § 63.14), or the guidelines presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA–450/3–88–018 (Docket ID No. OAR–2002–0093 and Docket ID No. A–2001–22). You may conduct transfer efficiency testing on representative coatings and for representative spray booths as described in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA–450/3–88–018 (Docket ID No. OAR–2002–0093 and Docket ID No. A–2001–22). You may assume 100 percent transfer efficiency for electrodeposition primer coatings, glass bonding primers, and glass bonding adhesives. For final repair coatings, you may assume 40 percent transfer efficiency for air atomized spray and 55 percent transfer efficiency for electrostatic spray and high volume, low pressure spray.

(h) *Calculate the total mass of organic HAP emissions before add-on controls.* Calculate the total mass of organic HAP emissions before consideration of add-on controls from all coatings and thinners used during each month in the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) using Equation 1 of this section:

$$H_{BC} = A + B \qquad \text{(Eq. 1)}$$

Where:

H_{BC} = Total mass of organic HAP emissions before consideration of add-on controls during the month, kg.

A = Total mass of organic HAP in the coatings used during the month, kg, as calculated in Equation 1A of this section.

B = Total mass of organic HAP in the thinners used during the month, kg, as calculated in Equation 1B of this section.

(1) Calculate the kg organic HAP in the coatings used during the month using Equation 1A of this section:

$$A = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i}) \qquad \text{(Eq. 1A)}$$

Where:

A = Total mass of organic HAP in the coatings used during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the month, liters.

$D_{c,i}$ = Density of coating, i, kg coating per liter coating.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating.

m = Number of different coatings used during the month.

(2) Calculate the kg of organic HAP in the thinners used during the month using Equation 1B of this section:

$$B = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \qquad \text{(Eq. 1B)}$$

Where:

B = Total mass of organic HAP in the thinners used during the month, kg.

$Vol_{t,j}$ = Total volume of thinner, j, used during the month, liters.

$D_{t,j}$ = Density of thinner, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner, j, kg organic HAP per kg thinner.

n = Number of different thinners used during the month.

(i) *Calculate the organic HAP emission reduction for each controlled coating operation.* Determine the mass of organic HAP emissions reduced for each controlled coating operation during each month. The emission reduction determination quantifies the total organic HAP emissions captured by the emission capture system and destroyed or removed by the add-on control device. Use the procedures in paragraph (j) of this section to calculate the mass of organic HAP emission reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. For each controlled coating operation using a solvent recovery system for which you conduct a liquid-liquid material balance, use the procedures in paragraph (k) of this section to calculate the organic HAP emission reduction.

(j) *Calculate the organic HAP emission reduction for each controlled coating operation not using liquid-liquid material balances.* For each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances, calculate the mass of organic HAP emission reduction for the controlled coating operation, excluding all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred, during the month using Equation 2 of this section. The calculation of mass of organic HAP emission reduction for the controlled coating operation during the month applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings and thinners that are used in the coating operation served by the emission capture system and add-on control device during each month. Except as provided in paragraph (p) of this section, for any period of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement of the capture system or control device serving the controlled coating operation occurred, you must assume zero efficiency for the emission capture system and add-on control device. Equation 2 of this section treats the materials used during such a deviation as if they were used on an uncontrolled coating operation for the time period of the deviation.

$$H_{Cn} = (A_C + B_C - A_{unc} - B_{unc})\left(\frac{CE}{100} \times \frac{DRE}{100}\right) \qquad \text{(Eq. 2)}$$

Where:

H_{Cn} = Mass of organic HAP emission reduction, excluding all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred, for the controlled coating operation during the month, kg.

A_C = Total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg, as calculated in Equation 2A of this section.

B_C = Total mass of organic HAP in the thinners used in the controlled coating operation during the month, kg, as calculated in Equation 2B of this section.

A_{unc} = Total mass of organic HAP in the coatings used during all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred for the controlled coating operation during the month, kg, as calculated in Equation 2C of this section.

B_{unc} = Total mass of organic HAP in the thinners used during all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred for the controlled coating operation during the month, kg, as calculated in Equation 2D of this section.

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent. Use the test methods and procedures specified in §§ 63.3164 and 63.3165 to measure and record capture efficiency.

DRE = Organic HAP destruction or removal efficiency of the add-on control device, percent. Use the test methods and procedures in §§ 63.3164 and 63.3166 to measure and record the organic HAP destruction or removal efficiency.

(1) Calculate the mass of organic HAP in the coatings used in the controlled coating operation, kg, using Equation 2A of this section.

$$A_c = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i}) \quad \text{(Eq. 2A)}$$

Where:

A_C = Total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the month, liters.

$D_{c,i}$ = Density of coating, i, kg per liter.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg per kg.

m = Number of different coatings used.

(2) Calculate the mass of organic HAP in the thinners used in the controlled coating operation, kg, using Equation 2B of this section.

$$B_c = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \quad \text{(Eq. 2B)}$$

Where:

B_C = Total mass of organic HAP in the thinners used in the controlled coating operation during the month, kg.

$Vol_{t,j}$ = Total volume of thinner, j, used during the month, liters.

$D_{t,j}$ = Density of thinner, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner, j, kg per kg.

n = Number of different thinners used.

(3) Calculate the mass of organic HAP in the coatings used in the controlled coating operation during deviations specified in § 63.3163(c) and (d), using Equation 2C of this section:

$$A_{unc} = \sum_{i=1}^{m} (VOLD_i)(D_i)(W_i) \quad \text{(Eq. 2C)}$$

Where:

A_{unc} = Total mass of organic HAP in the coatings used during all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred for the controlled coating operation during the month, kg.

$VOLD_i$ = Total volume of coating, i, used in the controlled coating operation during deviations, liters.

D_i = Density of coating, i, kg per liter.

W_i = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating.

m = Number of different coatings.

(4) Calculate the mass of organic HAP in the thinners used in the controlled coating operation during deviations specified in § 63.3163(c) and (d), using Equation 2D of this section:

$$B_{unc} = \sum_{j=1}^{n} (VOLD_j)(D_j)(W_j) \quad \text{(Eq. 2D)}$$

Where:

B_{unc} = Total mass of organic HAP in the thinners used during all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred for the controlled coating operation during the month, kg.

$VOLD_j$ = Total volume of thinner, j, used in the controlled coating operation during deviations, liters.

D_j = Density of thinner, j, kg per liter.

W_h = Mass fraction of organic HAP in thinner, j, kg organic HAP per kg coating.

n = Number of different thinners.

(k) *Calculate the organic HAP emission reduction for each controlled coating operation using liquid-liquid material balances.* For each controlled coating operation using a solvent recovery system for which you conduct liquid-liquid material balances, calculate the mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system using a liquid-liquid material balance during the month by applying the volatile organic matter collection and recovery efficiency to the mass of organic HAP contained in the coatings and thinners used in the coating operation controlled by the solvent recovery system during each month. Perform a liquid-liquid material balance for each month as specified in paragraphs (k)(1) through (6) of this section. Calculate the mass of organic HAP emission reduction by the solvent recovery system as specified in paragraph (k)(7) of this section.

(1) For each solvent recovery system, install, calibrate, maintain, and operate according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile organic matter recovered by the solvent recovery system each month. The device must be initially certified by the manufacturer to be accurate to within ± 2.0 percent of the mass of volatile organic matter recovered.

(2) For each solvent recovery system, determine the mass of volatile organic matter recovered for the month, kg, based on measurement with the device required in paragraph (k)(1) of this section.

(3) Determine the mass fraction of volatile organic matter for each coating and thinner used in the coating operation controlled by the solvent recovery system during the month, kg volatile organic matter per kg coating. You may determine the volatile organic matter mass fraction using Method 24 of 40 CFR part 60, appendix A, or an EPA approved alternative method, or you may use information provided by the manufacturer or supplier of the coating. In the event of any inconsistency between information provided by the manufacturer or supplier and the results of Method 24 of 40 CFR part 60, appendix A, or an approved alternative method, the test method results will govern unless after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the facility's data are correct.

(4) Determine the density of each coating and thinner used in the coating operation controlled by the solvent recovery system during the month, kg per liter, according to § 63.3151(b).

(5) Measure the volume of each coating and thinner used in the coating operation controlled by the solvent recovery system during the month, liters.

(6) Each month, calculate the solvent recovery system's volatile organic matter collection and recovery efficiency, using Equation 3 of this section:

$$R_v = 100 \frac{M_{VR}}{\sum_{i=1}^{m} Vol_i D_i WV_{c,i} + \sum_{j=1}^{n} Vol_j D_j WV_{t,j}} \quad \text{(Eq. 3)}$$

Where:

R_V = Volatile organic matter collection and recovery efficiency of the solvent recovery system during the month, percent.

M_{VR} = Mass of volatile organic matter recovered by the solvent recovery system during the month, kg.

Vol_i = Volume of coating, i, used in the coating operation controlled by the solvent recovery system during the month, liters.

D_i = Density of coating, i, kg per liter.

$WV_{c,i}$ = Mass fraction of volatile organic matter for coating, i, kg volatile organic matter per kg coating.

Vol_j = Volume of thinner, j, used in the coating operation controlled by the solvent recovery system during the month, liters.

D_j = Density of thinner, j, kg per liter.

$WV_{t,j}$ = Mass fraction of volatile organic matter for thinner, j, kg volatile organic matter per kg thinner.

m = Number of different coatings used in the coating operation controlled by the solvent recovery system during the month.

n = Number of different thinners used in the coating operation controlled by the solvent recovery system during the month.

(7) Calculate the mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system during the month, using Equation 4 of this section:

$$H_{CSR} = (A_{CSR} + B_{CSR})\left(\frac{R_V}{100}\right) \quad \text{(Eq. 4)}$$

Where:

H_{CSR} = Mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system using a liquid-liquid material balance during the month, kg.

A_{CSR} = Total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 4A of this section.

B_{CSR} = Total mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 4B of this section.

R_V = Volatile organic matter collection and recovery efficiency of the solvent recovery system, percent, from Equation 3 of this section.

(i) Calculate the mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, using Equation 4A of this section.

$$A_{CSR} = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i}) \quad \text{(Eq. 4A)}$$

Where:

A_{CSR} = Total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the month in the coating operation controlled by the solvent recovery system, liters.

$D_{c,i}$ = Density of coating, i, kg per liter.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg per kg.

m = Number of different coatings used.

(ii) Calculate the mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system, kg, using Equation 4B of this section.

$$B_{CSR} = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \quad \text{(Eq. 4B)}$$

Where:

B_{CSR} = Total mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{t,j}$ = Total volume of thinner, j, used during the month in the coating operation controlled by the solvent recovery system, liters.

$D_{t,j}$ = Density of thinner, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner, j, kg per kg.

n = Number of different thinners used.

(l) *Calculate the total volume of coating solids deposited.* Determine the total volume of coating solids deposited, liters, in the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) using Equation 5 of this section:

$$V_{sdcp} = \sum_{i=1}^{m} (Vol_{c,i})(V_{s,i})(TE_{c,i})/100 \quad \text{(Eq. 5)}$$

Where:

V_{sdep} = Total volume of coating solids deposited during the month, liters.

$Vol_{c,i}$ = Total volume of coating, i, used during the month, liters.

$V_{s,i}$ = Volume fraction of coating solids for coating, i, liter solids per liter coating, determined according to § 63.3161(f).

$TE_{c,i}$ = Transfer efficiency of coating, i, determined according to § 63.3161(g), expressed as a decimal, for example 60 percent must be expressed as 0.60.

m = Number of coatings used during the month.

(m) *Calculate the mass of organic HAP emissions for each month.* Determine the mass of organic HAP emissions, kg, during each month, using Equation 6 of this section.

$$H_{HAP} = H_{BC} - \sum_{i=1}^{q} \left(H_{Cn,i}\right) - \sum_{j=1}^{r} \left(H_{CSR,j}\right) - \sum_{k=1}^{q} \sum_{m=1}^{Sk} \left(H_{DEV,k,m}\right) \quad \text{(Eq. 6)}$$

Where:

H_{HAP} = Total mass of organic HAP emissions for the month, kg.

H_{BC} = Total mass of organic HAP emissions before add-on controls from all the coatings and thinners used during the month, kg, determined according to paragraph (h) of this section.

$H_{Cn,i}$ = Total mass of organic HAP emission reduction for controlled coating operation, i, not using a liquid-liquid material balance, excluding all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred, for the controlled coating operation during the month, from Equation 2 of this section.

$H_{CSR,j}$ = Total mass of organic HAP emission reduction for coating operation, j, controlled by a solvent recovery system using a liquid-liquid material balance, during the month, kg, from Equation 4 of this section.

$H_{DEV,k,m}$ = Mass of organic HAP emission reduction, based on the capture system and control device efficiency approved under paragraph (p) of this section for period of deviation, m, for controlled coating operation, k, kg, as determined using Equation 8 of this section.

q = Number of controlled coating operations not using a liquid-liquid material balance.

r = Number of coating operations controlled by a solvent recovery system using a liquid-liquid material balance.

S_k = Number of periods of deviation in the month for which non-zero capture and control device efficiencies have been approved for controlled coating operation, k.

(n) *Calculate the organic HAP emission rate for the month.* Determine the organic HAP emission rate for the month, kg organic HAP per liter coating solids deposited, using Equation 7 of this section:

$$H_{ratc} = \left(H_{HAP}\right)/\left(V_{sdcp}\right) \quad \text{(Eq. 7)}$$

Where:

H_{rate} = Organic HAP emission rate for the month compliance period, kg organic HAP per liter coating solids deposited.

H_{HAP} = Mass of organic HAP emissions for the month, kg, determined according to Equation 6 of this section.

V_{sdep} = Total volume of coating solids deposited during the month, liters, from Equation 5 of this section.

(o) *Compliance demonstration.* To demonstrate initial compliance, the organic HAP emissions from the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) must be less than or equal to the applicable emission limitation in § 63.3090(a) or § 63.3091(a). You must keep all records as required by §§ 63.3130 and 63.3131. As part of the Notification of Compliance Status required by § 63.3110, you must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in § 63.3090(a) or § 63.3091(a) and you achieved the operating limits required by § 63.3093 and the work practice standards required by § 63.3094.

(p) You may request approval from the Administrator to use non-zero capture efficiencies and add-on control device efficiencies for any period of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or add-on control device serving a controlled coating operation occurred.

(1) If you have manually collected parameter data indicating that a capture system or add-on control device was operating normally during a CPMS malfunction, a CPMS out-of-control period, or associated repair, then these data may be used to support and document your request to use the normal capture efficiency or add-on control device efficiency for that period of deviation.

(2) If you have data indicating the actual performance of a capture system or add-on control device (*e.g.*, capture efficiency measured at a reduced flow rate or add-on control device efficiency measured at a reduced thermal oxidizer temperature) during a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or add-on control device serving a controlled coating operation, then these data may be used to support and document your request to use these values for that period of deviation.

(3) The organic HAP emission reduction achieved during each period of deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or add-on control device serving a controlled coating operation for which the Administrator has approved the use of non-zero capture efficiency and add-on control device efficiency values is calculated using Equation 8 of this section.

$$H_{DEV} = (A_{DEV} + B_{DEV})\left(\frac{CE_{DEV}}{100}\right)\left(\frac{DRE_{DEV}}{100}\right) \quad \text{(Eq. 8)}$$

Where:

H_{DEV} = Mass of organic HAP emission reduction achieved during a period of deviation for the controlled coating operation, kg.

A_{DEV} = Total mass of organic HAP in the coatings used in the controlled coating operation during the period of deviation, kg, as calculated in Equation 8A of this section.

B_{DEV} = Total mass of organic HAP in the thinners used in the controlled coating operation during the period of deviation, kg, as calculated in Equation 8B of this section.

CE_{DEV} = Capture efficiency of the emission capture system vented to the add-on control device, approved for the period of deviation, percent.

DRE_{DEV} = Organic HAP destruction or removal efficiency of the add-on control device approved for the period of deviation, percent.

(4) Calculate the total mass of organic HAP in the coatings used in the controlled coating operation during the period of deviation using equation 8A of this section:

$$A_{DEV} = \sum_{i=i}^{m}\left(VOL_{CDEV,i}\right)\left(D_{c,i}\right)\left(W_{c,i}\right) \quad \text{(Eq. 8A)}$$

Where:

A_{DEV} = Total mass of organic HAP in the coatings used in the controlled coating operation during the period of deviation, kg.

$VOL_{CDEV,i}$ = total volume of coating, i, used in the controlled coating operation during the period of deviation, liters.

$D_{c,i}$ = Density of coating, i, kg per liter.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg per kg.

m = Number of different coatings used.

(5) Calculate the total mass of organic HAP in the thinners used in the controlled coating operation during the period of deviation using equation 8B of this section:

$$B_{DEV} = \sum_{j=i}^{n}\left(VOL_{TDEV,j}\right)\left(D_{t,j}\right)\left(W_{t,j}\right) \quad \text{(Eq. 8B)}$$

Where:

B_{DEV} = Total mass of organic HAP in the thinners used in the controlled coating operation during the period of deviation, kg.

$VOL_{TDEV,j}$ = Total volume of thinner, j, used in the controlled coating operation during the period of deviation, liters.

$D_{t,j}$ = Density of thinner, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner, j, kg per kg.

n = Number of different thinners used.

§ 63.3162 [Reserved]

§ 63.3163 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance with the applicable emission limit in § 63.3090(a) or § 63.3091(a), the organic HAP emission rate for each compliance period, determined according to the procedures in § 63.3161, must be equal to or less than the applicable emission limit in § 63.3090(a) or § 63.3091(a). A compliance period consists of 1 month. Each month after the end of the initial compliance period described in § 63.3160 is a compliance period consisting of that month. You must perform the calculations in § 63.3161 on a monthly basis.

(b) If the organic HAP emission rate for any 1 month compliance period exceeded the applicable emission limit in § 63.3090(a) or § 63.3091(a), this is a deviation from the emission limitation for that compliance period and must be reported as specified in §§ 63.3110(c)(6) and 63.3120(a)(6).

(c) You must demonstrate continuous compliance with each operating limit required by § 63.3093 that applies to you, as specified in Table 1 to this subpart.

(1) If an operating parameter is out of the allowed range specified in Table 1 to this subpart, this is a deviation from the operating limit that must be reported as specified in §§ 63.3110(c)(6) and 63.3120(a)(6).

(2) If an operating parameter deviates from the operating limit specified in Table 1 to this subpart, then you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation except as provided in § 63.3161(p).

(d) You must meet the requirements for bypass lines in § 63.3168(b) for control devices other than solvent recovery systems for which you conduct liquid-liquid material balances. If any bypass line is opened and emissions are diverted to the atmosphere when the coating operation is running, this is a deviation that must be reported as specified in § 63.3110(c)(6) and 63.3120(a)(6). For the purposes of completing the compliance calculations specified in § 63.3161(k), you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation.

(e) You must demonstrate continuous compliance with the work practice standards in § 63.3094. If you did not develop a work practice plan, if you did not implement the plan, or if you did not keep the records required by § 63.3130(n), this is a deviation from the work practice standards that must be reported as specified in §§ 63.3110(c)(6) and 63.3120(a)(6).

(f) If there were no deviations from the emission limitations, submit a statement as part of the semiannual compliance report that you were in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in § 63.3090(a) or § 63.3091(a), and you achieved the operating limits required by § 63.3093 and the work practice standards required by § 63.3094 during each compliance period.

(g) During periods of startup, shutdown, or malfunction of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency, you must operate in accordance with the SSMP required by § 63.3100(f).

(h) Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the SSMP. The Administrator will determine whether deviations that occur during a period you identify as a startup, shutdown, or malfunction are violations according to the provisions in § 63.6(e).

(i) [Reserved]

(j) You must maintain records as specified in §§ 63.3130 and 63.3131.

§ 63.3164 What are the general requirements for performance tests?

(a) You must conduct each performance test required by § 63.3160 according to the requirements in § 63.7(e)(1) and under the conditions in this section unless you obtain a waiver of the performance test according to the provisions in § 63.7(h).

(1) *Representative coating operation operating conditions.* You must conduct the performance test under representative operating conditions for the coating operation. Operations during periods of startup, shutdown, or malfunction, and during periods of nonoperation do not constitute representative conditions. You must record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation.

(2) *Representative emission capture system and add-on control device operating conditions.* You must conduct the performance test when the emission capture system and add-on control device are operating at a representative flow rate, and the add-on control device is operating at a representative inlet concentration. You must record information that is necessary to document emission capture system and add-on control device operating conditions during the test and explain why the conditions represent normal operation.

(b) You must conduct each performance test of an emission capture system according to the requirements in § 63.3165. You must conduct each performance test of an add-on control device according to the requirements in § 63.3166.

§ 63.3165 How do I determine the emission capture system efficiency?

You must use the procedures and test methods in this section to determine capture efficiency as part of the performance test required by § 63.3160. For purposes of this subpart, a spray booth air seal is not considered a natural draft opening in a PTE or a temporary total enclosure provided you demonstrate that the direction of air movement across the interface between the spray booth air seal and the spray booth is into the spray booth. For purposes of this subpart, a bake oven air seal is not considered a natural draft opening in a PTE or a temporary total enclosure provided you demonstrate that the direction of air movement across the interface between the bake oven air seal and the bake oven is into the bake oven. You may use lightweight strips of fabric or paper, or smoke tubes to make such demonstrations as part of showing that your capture system is a PTE or conducting a capture efficiency test using a temporary total enclosure. You cannot count air flowing from a spray booth air seal into a spray booth as air flowing through a natural draft opening into a PTE or into a temporary total enclosure unless you elect to treat that spray booth air seal as a natural draft opening. You cannot count air flowing from a bake oven air seal into a bake oven as air flowing through a natural draft opening into a PTE or into a temporary total enclosure unless you elect to treat that bake oven air seal as a natural draft opening.

(a) *Assuming 100 percent capture efficiency.* You may assume the capture system efficiency is 100 percent if both of the conditions in paragraphs (a)(1) and (2) of this section are met:

(1) The capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and directs all the exhaust gases from the enclosure to an add-on control device.

(2) All coatings and thinners used in the coating operation are applied within the capture system, and coating solvent flash-off and coating curing and drying occurs within the capture system. For example, this criterion is not met if parts enter the open shop environment when being moved between a spray booth and a curing oven.

(b) *Measuring capture efficiency.* If the capture system does not meet both of the criteria in paragraphs (a)(1) and (2) of this section, then you must use one of the five procedures described in paragraphs (c) through (g) of this section to measure capture efficiency. The capture efficiency measurements use TVH capture efficiency as a surrogate for organic HAP capture efficiency. For the protocols in paragraphs (c) and (d) of this section, the capture efficiency measurement must consist of three test runs. Each test run must be at least 3 hours duration or the length of a production run, whichever is longer, up to 8 hours. For the purposes of this test, a production run means the time required for a single part to go from the beginning to the end of production, which includes surface preparation activities and drying or curing time.

(c) *Liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* The liquid-to-uncaptured-gas protocol compares the mass of liquid TVH in materials used in the coating operation to the mass of TVH emissions not captured by the emission capture system. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (c)(1) through (6) of this section to measure emission capture system efficiency using the liquid-to-uncaptured-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings and thinners are applied, and all areas where emissions from these applied coatings and thinners subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions for routing to an add-on control device, such as the entrance and exit areas of an oven or spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204A or F of appendix M to 40 CFR part 51 to determine the mass fraction of TVH liquid input from each coating and thinner used in the coating operation during each capture efficiency test run. To make the determination, substitute TVH for each occurrence of the term volatile organic compounds (VOC) in the methods.

(3) Use Equation 1 of this section to calculate the total mass of TVH liquid input from all the coatings and thinners used in the coating operation during each capture efficiency test run.

$$TVH_{used} = \sum_{i=1}^{n} (TVH_i)(Vol_i)(D_i) \qquad \text{(Eq. 1)}$$

Where:

TVH_i = Mass fraction of TVH in coating or thinner, i, used in the coating operation during the capture efficiency test run, kg TVH per kg material.

Vol_i = Total volume of coating or thinner, i, used in the coating operation during the capture efficiency test run, liters.

D_i = Density of coating or thinner, i, kg material per liter material.

n = Number of different coatings and thinners used in the coating operation during the capture efficiency test run.

(4) Use Method 204D or E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system; they are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D if the enclosure is a temporary total enclosure.

(ii) Use Method 204E if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.

(5) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 2 of this section:

$$CE = \frac{\left(TVH_{used} - TVH_{uncaptured}\right)}{TVH_{used}} \times 100 \qquad \text{(Eq. 2)}$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

TVH_{used} = Total mass of TVH liquid input used in the coating operation during the capture efficiency test run, kg.

$TVH_{uncaptured}$ = Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.

(6) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(d) *Gas-to-gas protocol using a temporary total enclosure or a building enclosure.* The gas-to-gas protocol compares the mass of TVH emissions captured by the emission capture system to the mass of TVH emissions not captured. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (d)(1) through (5) of this section to measure emission capture system efficiency using the gas-to-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings and thinners are applied, and all areas where emissions from these applied coatings and thinners subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions generated by the coating operation for routing to an add-on control device, such as the entrance and exit areas of an oven or a spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204B or C of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions captured by the emission capture system during each capture efficiency test run as measured at the inlet to the add-on control device. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) The sampling points for the Method 204B or C measurement must be upstream from the add-on control device and must represent total emissions routed from the capture system and entering the add-on control device.

(ii) If multiple emission streams from the capture system enter the add-on control device without a single common duct, then the emissions entering the add-on control device must be simultaneously or sequentially measured in each duct, and the total emissions entering the add-on control device must be determined.

(3) Use Method 204D or E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system; they are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D if the enclosure is a temporary total enclosure.

(ii) Use Method 204E if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.

(4) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 3 of this section:

$$CE = \frac{TVH_{captured}}{\left(TVH_{captured} + TVH_{uncaptured}\right)} \times 100 \qquad \text{(Eq. 3)}$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

$TVH_{captured}$ = Total mass of TVH captured by the emission capture system as measured at the inlet to the add-on control device during the emission capture efficiency test run, kg.

$TVH_{uncaptured}$ = Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.

(5) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(e) *Panel testing to determine the capture efficiency of flash-off or bake oven emissions.* You may conduct panel testing to determine the capture efficiency of flash-off or bake oven emissions using ASTM Method D5087–02, "Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)" (incorporated by reference, see § 63.14), ASTM Method D6266–00a, "Test Method for Determining the Amount of Volatile Organic Compound (VOC) Released from Waterborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)" (incorporated by reference, see § 63.14), or the guidelines presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA–450/3–88–018 (Docket ID No. OAR–2002–0093 and Docket ID No. A–2001–22). You may conduct panel testing on representative coatings as described in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA–450/3–88–018 (Docket ID No. OAR–2002–0093 and Docket ID No. A–2001–22). The results of these panel testing procedures are in units of mass of VOC per volume of coating solids deposited and must be converted to a percent value for use in this subpart. If you panel test representative coatings, then you may convert the panel test result for each representative coating either to a unique percent capture efficiency for each coating grouped with that representative coating by using coating specific values for the volume of coating solids deposited per volume of coating used, mass of VOC per volume of coating, volume fraction solids, transfer efficiency, density and mass fraction VOC in Equations 4 through 6 of this section; or to a composite percent capture efficiency for the group of coatings by using composite values for the group of coatings for the volume of coating solids deposited per volume of coating used and for the mass of VOC per volume of coating, and average values for the group of coatings for volume fraction solids, transfer efficiency, density and mass fraction VOC in Equations 4 through 6 of this section. If you panel test each coating, then you must convert the panel test result for each coating to a unique percent capture efficiency for that coating by using coating specific values for the volume of coating solids deposited per volume of coating used, mass of VOC per volume of coating, volume fraction solids, transfer efficiency, density, and mass fraction VOC in Equations 4 through 6 of this section. Panel test results expressed in units of mass of VOC per volume of coating solids deposited must be converted to percent capture efficiency using Equation 4 of this section. (An alternative for using panel test results expressed in units of mass of VOC per mass of coating solids deposited is presented in paragraph (e)(3) of this section.)

$$CE_i = (P_i)(V_{sdep,i})(100)/(VOC_i) \qquad \text{(Eq. 4)}$$

Where:

CE_i = Capture efficiency for coating, i, or for the group of coatings including coating, i, for the flash-off area or bake oven for which the panel test is conducted, percent.

P_i = Panel test result for coating, i, or for the coating representing coating, i, in the panel test, kg of VOC per liter of coating solids deposited.

$V_{sdep,i}$ = Volume of coating solids deposited per volume of coating used for coating, i, or composite volume of coating solids deposited per volume of coating used for the group of coatings including coating, i, in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, liter of coating solids deposited per liter of coating used, from Equation 5 of this section.

VOC_i = Mass of VOC per volume of coating for coating, i, or composite mass of VOC per volume of coating for the group of coatings including coating, i, kg per liter, from Equation 6 of this section.

(1) Calculate the volume of coating solids deposited per volume of coating used for coating, i, or the composite volume of coating solids deposited per volume of coating used for the group of coatings including coating, i, used during the month in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted using Equation 5 of this section:

$$V_{sdep,i} = (V_{s,i})(TE_{c,i}) \qquad \text{(Eq. 5)}$$

Where:

$V_{sdep,i}$ = Volume of coating solids deposited per volume of coating used for coating, i, or composite volume of coating solids deposited per volume of coating used for the group of coatings including coating, i, in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, liter of coating solids deposited per liter of coating used.

$V_{s,i}$ = Volume fraction of coating solids for coating, i, or average volume fraction of coating solids for the group of coatings including coating, i, liter coating solids per liter coating, determined according to § 63.3161(f).

$TE_{c,i}$ = Transfer efficiency of coating, i, or average transfer efficiency for the group of coatings including coating, i, in the spray booth(s) for the flash-off area or bake oven for which the panel test is conducted determined according to § 63.3161(g), expressed as a decimal, for example 60 percent must be expressed as 0.60. (Transfer efficiency also may be determined by testing representative coatings. The same coating groupings may be appropriate for both transfer efficiency testing and panel testing. In this case, all of the coatings in a panel test grouping would have the same transfer efficiency.)

(2) Calculate the mass of VOC per volume of coating for coating, i, or the composite mass of VOC per volume of coating for the group of coatings including coating, i, used during the month in the spray booth(s) preceding

the flash-off area or bake oven for which the panel test is conducted, kg, using Equation 6 of this section:

$$VOC_i = (D_{c,i})(Wvoc_{c,i}) \quad \text{(Eq. 6)}$$

Where:

VOC_i = Mass of VOC per volume of coating for coating, i, or composite mass of VOC per volume of coating for the group of coatings including coating, i, used during the month in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, kg VOC per liter coating.

$D_{c,i}$ = Density of coating, i, or average density of the group of coatings including coating, i, kg coating per liter coating, density determined according to § 63.3151(b).

$Wvoc_{c,i}$ = Mass fraction of VOC in coating, i, or average mass fraction of VOC for the group of coatings including coating, i, kg VOC per kg coating, determined by Method 24 (appendix A to 40 CFR part 60) or the guidelines for combining analytical VOC content and formulation solvent content presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA–450/3–88–018 (Docket ID No. OAR–2002–0093 and Docket ID No. A–2001–22).

(3) As an alternative, you may choose to express the results of your panel tests in units of mass of VOC per mass of coating solids deposited and convert such results to a percent using Equation 7 of this section. If you panel test representative coatings, then you may convert the panel test result for each representative coating either to a unique percent capture efficiency for each coating grouped with that representative coating by using coating specific values for the mass of coating solids deposited per mass of coating used, mass fraction VOC, transfer efficiency, and mass fraction solids in Equations 7 and 8 of this section; or to a composite percent capture efficiency for the group of coatings by using composite values for the group of coatings for the mass of coating solids deposited per mass of coating used and average values for the mass of VOC per volume of coating, average values for the group of coatings for mass fraction VOC, transfer efficiency, and mass fraction solids in Equations 7 and 8 of this section. If you panel test each coating, then you must convert the panel test result for each coating to a unique percent capture efficiency for that coating by using coating specific values for the mass of coating solids deposited per mass of coating used, mass fraction VOC, transfer efficiency, and mass fraction solids in Equations 7 and 8 of this section. Panel test results expressed in units of mass of VOC per volume of coating solids deposited must be converted to percent capture efficiency using Equation 7 of this section:

$$CE_i = (P_{m,i})(W_{sdep,i})/(Wvoc_{c,i}) \quad \text{(Eq. 7)}$$

Where:

CE_i = Capture efficiency for coating, i, or for the group of coatings including coating, i, for the flash-off area or bake oven for which the panel test is conducted, percent.

$P_{m,i}$ = Panel test result for coating, i, or for the coating representing coating, i, in the panel test, kg of VOC per kg of coating solids deposited.

$W_{sdep,i}$ = Mass of coating solids deposited per mass of coating used for coating i, or composite mass of coating solids deposited per mass of coating used for the group of coatings including coating, i, in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, kg of solids deposited per kg of coating used, from Equation 8 of this section.

$Wvoc_{c,i}$ = Mass fraction of VOC in coating, i, or average mass fraction of VOC for the group of coatings including coating, i, kg VOC per kg coating, determined by Method 24 (appendix A to 40 CFR part 60) or the guidelines for combining analytical VOC content and formulation solvent content presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA–450/3–88–018 (Docket ID No. OAR–2002–0093 and Docket ID No. A–2001–22).

(4) Calculate the mass of coating solids deposited per mass of coating used for each coating or the composite mass of coating solids deposited per mass of coating used for each group of coatings used during the month in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted using Equation 8 of this section:

$$W_{sdep,i} = (W_{s,i})(TE_{c,i}) \quad \text{(Eq. 8)}$$

Where:

$W_{sdep,i}$ = Mass of coating solids deposited per mass of coating used for coating, i, or composite mass of coating solids deposited per mass of coating used for the group of coatings including coating, i, in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, kg coating solids deposited per kg coating used.

$W_{s,i}$ = Mass fraction of coating solids for coating, i, or average mass fraction of coating solids for the group of coatings including coating, i, kg coating solids per kg coating, determined by Method 24 (appendix A to 40 CFR part 60) or the guidelines for combining analytical VOC content and formulation solvent content presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA–450/3–88–018 (Docket ID No. OAR–2002–0093 and Docket ID No. A–2001–22).

$TE_{c,i}$ = Transfer efficiency of coating, i, or average transfer efficiency for the group of coatings including coating, i, in the spray booth(s) for the flash-off area or bake oven for which the panel test is conducted determined according to § 63.3161(g), expressed as a decimal, for example 60 percent must be expressed as 0.60. (Transfer efficiency also may be determined by testing representative coatings. The same coating groupings may be appropriate used for both transfer efficiency testing and panel testing. In this case, all of the coatings in a panel test grouping would have the same transfer efficiency.)

(f) *Alternative capture efficiency procedure.* As an alternative to the procedures specified in paragraphs (c) through (e) and (g) of this section, you may determine capture efficiency using any other capture efficiency protocol and test methods that satisfy the criteria of either the DQO or LCL approach as

described in appendix A to subpart KK of this part.

(g) *Panel testing to determine the capture efficiency of spray booth emissions from solvent-borne coatings.* You may conduct panel testing to determine the capture efficiency of spray booth emissions from solvent-borne coatings using the procedure in appendix A to this subpart.

§ 63.3166 How do I determine the add-on control device emission destruction or removal efficiency?

You must use the procedures and test methods in this section to determine the add-on control device emission destruction or removal efficiency as part of the performance test required by § 63.3160. You must conduct three test runs as specified in § 63.7(e)(3), and each test run must last at least 1 hour.

(a) For all types of add-on control devices, use the test methods specified in paragraphs (a)(1) through (5) of this section.

(1) Use Method 1 or 1A of appendix A to 40 CFR part 60, as appropriate, to select sampling sites and velocity traverse points.

(2) Use Method 2, 2A, 2C, 2D, 2F, or 2G of appendix A to 40 CFR part 60, as appropriate, to measure gas volumetric flow rate.

(3) Use Method 3, 3A, or 3B of appendix A to 40 CFR part 60, as appropriate, for gas analysis to determine dry molecular weight. The ANSI/ASME PTC 19.10–1981, "Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]" (incorporated by reference, see § 63.14), may be used as an alternative to Method 3B.

(4) Use Method 4 of appendix A to 40 CFR part 60 to determine stack gas moisture.

(5) Methods for determining gas volumetric flow rate, dry molecular weight, and stack gas moisture must be performed, as applicable, during each test run.

(b) Measure total gaseous organic mass emissions as carbon at the inlet and outlet of the add-on control device simultaneously, using either Method 25 or 25A of appendix A to 40 CFR part 60, as specified in paragraphs (b)(1) through (3) of this section. You must use the same method for both the inlet and outlet measurements.

(1) Use Method 25 if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be more than 50 parts per million by volume (ppmv) at the control device outlet.

(2) Use Method 25A if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be 50 ppmv or less at the control device outlet.

(3) Use Method 25A if the add-control device is not an oxidizer.

(c) If two or more add-on control devices are used for the same emission stream, then you must measure emissions at the outlet of each device. For example, if one add-on control device is a concentrator with an outlet for the high-volume, dilute stream that has been treated by the concentrator, and a second add-on control device is an oxidizer with an outlet for the low-volume, concentrated stream that is treated with the oxidizer, you must measure emissions at the outlet of the oxidizer and the high volume dilute stream outlet of the concentrator.

(d) For each test run, determine the total gaseous organic emissions mass flow rates for the inlet and the outlet of the add-on control device, using Equation 1 of this section. If there is more than one inlet or outlet to the add-on control device, you must calculate the total gaseous organic mass flow rate using Equation 1 of this section for each inlet and each outlet and then total all of the inlet emissions and total all of the outlet emissions.

$$M_f = Q_{sd} C_c (12)(0.0416)(10^{-6}) \qquad \text{(Eq. 1)}$$

Where:

M_f = Total gaseous organic emissions mass flow rate, kg per hour (kg/h).

C_c = Concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, ppmv, dry basis.

Q_{sd} = Volumetric flow rate of gases entering or exiting the add-on control device, as determined by Method 2, 2A, 2C, 2D, 2F, or 2G, dry standard cubic meters per hour (dscm/h).

0.0416 = Conversion factor for molar volume, kg-moles per cubic meter (mol/m^3) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg)).

(e) For each test run, determine the add-on control device organic emissions destruction or removal efficiency using Equation 2 of this section:

$$DRE = \frac{M_{fi} - M_{fo}}{M_{f_i}}(100) \qquad \text{(Eq. 2)}$$

Where:

DRE = Organic emissions destruction or removal efficiency of the add-on control device, percent.

M_{fi} = Total gaseous organic emissions mass flow rate at the inlet(s) to the add-on control device, using Equation 1 of this section, kg/h.

M_{fo} = Total gaseous organic emissions mass flow rate at the outlet(s) of the add-on control device, using Equation 1 of this section, kg/h.

(f) Determine the emission destruction or removal efficiency of the add-on control device as the average of the efficiencies determined in the three test runs and calculated in Equation 2 of this section.

§ 63.3167 How do I establish the add-on control device operating limits during the performance test?

During the performance test required by § 63.3160 and described in §§ 63.3164 and 63.3166, you must establish the operating limits required by § 63.3093 according to this section, unless you have received approval for alternative monitoring and operating limits under § 63.8(f) as specified in § 63.3093.

(a) *Thermal oxidizers.* If your add-on control device is a thermal oxidizer, establish the operating limit according to paragraphs (a)(1) through (3) of this section.

(1) During the performance test, you must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.

(2) Use all valid data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature is the minimum operating limit for your thermal oxidizer.

(3) As an alternative, if the latest operating permit issued before April 26, 2007, for the thermal oxidizer at your facility contains recordkeeping and reporting requirements for the combustion temperature that are consistent with the requirements for thermal oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limit for the combustion temperature for each such thermal oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average combustion temperature during the performance test of that thermal oxidizer. If you do not have an operating permit for the thermal oxidizer at your facility and the latest construction permit issued before April 26, 2007, for the thermal oxidizer at your facility contains recordkeeping and reporting requirements for the combustion temperature that are consistent with the requirements for

thermal oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limit for the combustion temperature for each such thermal oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average combustion temperature during the performance test of that thermal oxidizer. If you use 28 degrees Celsius (50 degrees Fahrenheit) below the combustion temperature maintained during the performance test as the minimum operating limit for a thermal oxidizer, then you must keep the combustion temperature set point on that thermal oxidizer no lower than 14 degrees Celsius (25 degrees Fahrenheit) below the lower of that set point during the performance test for that thermal oxidizer and the average combustion temperature maintained during the performance test for that thermal oxidizer.

(b) *Catalytic oxidizers.* If your add-on control device is a catalytic oxidizer, establish the operating limits according to either paragraphs (b)(1) through (3) or paragraphs (b)(4) through (6) of this section.

(1) During the performance test, you must monitor and record the temperature just before the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the three test runs.

(2) Use all valid data collected during the performance test to calculate and record the average temperature just before the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. The minimum operating limits for your catalytic oxidizer are the average temperature just before the catalyst bed maintained during the performance test of that catalytic oxidizer and 80 percent of the average temperature difference across the catalyst bed maintained during the performance test of that catalytic oxidizer, except during periods of low production the latter minimum operating limit is to maintain a positive temperature gradient across the catalyst bed. A low production period is when production is less than 80 percent of production rate during the performance test of that catalytic oxidizer.

(3) As an alternative, if the latest operating permit issued before April 26, 2007, for the catalytic oxidizer at your facility contains recordkeeping and reporting requirements for the temperature before the catalyst bed that are consistent with the requirements for catalytic oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limits for each such catalytic oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer and 80 percent of the average temperature difference across the catalyst bed maintained during the performance test for that catalytic oxidizer, except during periods of low production the latter minimum operating limit is to maintain a positive temperature gradient across the catalyst bed. If you do not have an operating permit for the catalytic oxidizer at your facility and the latest construction permit issued before April 26, 2007, for the catalytic oxidizer at your facility contains recordkeeping and reporting requirements for the temperature before the catalyst bed that are consistent with the requirements for catalytic oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limits for each such catalytic oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer and 80 percent of the average temperature difference across the catalyst bed maintained during the performance test for that catalytic oxidizer, except during periods of low production the latter minimum operating limit is to maintain a positive temperature gradient across the catalyst bed. A low production period is when production is less than 80 percent of production rate during the performance test. If you use 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test as the minimum operating limits for a catalytic oxidizer, then you must keep the set point for the temperature just before the catalyst bed on that catalytic oxidizer no lower than 14 degrees Celsius (25 degrees Fahrenheit) below the lower of that set point during the performance test for that catalytic oxidizer and the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer.

(4) As an alternative to monitoring the temperature difference across the catalyst bed, you may monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in paragraph (b)(6) of this section. During the performance test, you must monitor and record the temperature just before the catalyst bed at least once every 15 minutes during each of the three test runs. Use all valid data collected during the performance test to calculate and record the average temperature just before the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer.

(5) If the latest operating permit issued before April 26, 2007, for the catalytic oxidizer at your facility contains recordkeeping and reporting requirements for the temperature before the catalyst bed that are consistent with the requirements for catalytic oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limit for each such catalytic oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer. If you do not have an operating permit for the catalytic oxidizer at your facility and the latest construction permit issued before April 26, 2007, for the catalytic oxidizer at your facility contains recordkeeping and reporting requirements for the temperature before the catalyst bed that are consistent with the requirements for catalytic oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limit for each such catalytic oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer. If you use 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test as the minimum operating limit for a catalytic oxidizer, then you must keep the set point for the temperature just before the catalyst bed on that catalytic oxidizer no lower than 14 degrees Celsius (25 degrees Fahrenheit) below the lower of that set point during the performance test for that catalytic oxidizer and the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer.

(6) You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s) for which you elect to monitor according to paragraph (b)(4) or (5) of this section. The plan must address, at a minimum, the elements specified in paragraphs (b)(6)(i) through (iii) of this section.

(i) Annual sampling and analysis of the catalyst activity (*i.e.*, conversion efficiency) following the oxidizer manufacturer's or catalyst supplier's recommended procedures.

(ii) Monthly inspection of the oxidizer system, including the burner assembly

and fuel supply lines for problems and, as necessary, adjustment of the equipment to assure proper air-to-fuel mixtures.

(iii) Annual internal and monthly external visual inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found, you must replace the catalyst bed and conduct a new performance test to determine destruction efficiency according to § 63.3166.

(c) *Regenerative carbon adsorbers.* If your add-on control device is a regenerative carbon adsorber, establish the operating limits according to paragraphs (c)(1) and (2) of this section.

(1) You must monitor and record the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle and the carbon bed temperature after each carbon bed regeneration and cooling cycle for the regeneration cycle either immediately preceding or immediately following the performance test.

(2) The operating limits for your carbon adsorber are the minimum total desorbing gas mass flow recorded during the regeneration cycle and the maximum carbon bed temperature recorded after the cooling cycle.

(d) *Condensers.* If your add-on control device is a condenser, establish the operating limits according to paragraphs (d)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the condenser outlet (product side) gas temperature at least once every 15 minutes during each of the three test runs.

(2) Use all valid data collected during the performance test to calculate and record the average condenser outlet (product side) gas temperature maintained during the performance test. This average condenser outlet gas temperature is the maximum operating limit for your condenser.

(e) *Concentrators.* If your add-on control device includes a concentrator, you must establish operating limits for the concentrator according to paragraphs (e)(1) and (2)of this section.

(1) During the performance test, you must monitor and record the desorption gas inlet temperature at least once every 15 minutes during each of the three runs of the performance test.

(2) Use all valid data collected during the performance test to calculate and record the average desorption gas inlet temperature. The minimum operating limit for the concentrator is 8 degrees Celsius (15 degrees Fahrenheit) below the average desorption gas inlet temperature maintained during the performance test for that concentrator. You must keep the set point for the desorption gas inlet temperature no lower than 6 degrees Celsius (10 degrees Fahrenheit) below the lower of that set point during the performance test for that concentrator and the average desorption gas inlet temperature maintained during the performance test for that concentrator.

(f) *Emission capture systems.* For each capture device that is not part of a PTE that meets the criteria of § 63.3165(a) and that is not capturing emissions from a downdraft spray booth or from a flash-off area or bake oven associated with a downdraft spray booth, establish an operating limit for either the gas volumetric flow rate or duct static pressure, as specified in paragraphs (f)(1) and (2) of this section. The operating limit for a PTE is specified in Table 1 to this subpart.

(1) During the capture efficiency determination required by § 63.3160 and described in §§ 63.3164 and 63.3165, you must monitor and record either the gas volumetric flow rate or the duct static pressure for each separate capture device in your emission capture system at least once every 15 minutes during each of the three test runs at a point in the duct between the capture device and the add-on control device inlet.

(2) Calculate and record the average gas volumetric flow rate or duct static pressure for the three test runs for each capture device, using all valid data. This average gas volumetric flow rate or duct static pressure is the minimum operating limit for that specific capture device.

§ 63.3168 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?

(a) *General.* You must install, operate, and maintain each CPMS specified in paragraphs (c), (e), (f), and (g) of this section according to paragraphs (a)(1) through (6) of this section. You must install, operate, and maintain each CPMS specified in paragraphs (b) and (d) of this section according to paragraphs (a)(3) through (5) of this section.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four equally-spaced successive cycles of CPMS operation in 1 hour.

(2) You must determine the average of all recorded readings for each successive 3-hour period of the emission capture system and add-on control device operation.

(3) You must record the results of each inspection, calibration, and validation check of the CPMS.

(4) You must maintain the CPMS at all times and have available necessary parts for routine repairs of the monitoring equipment.

(5) You must operate the CPMS and collect emission capture system and add-on control device parameter data at all times that a controlled coating operation is operating, except during monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, if applicable, calibration checks and required zero and span adjustments).

(6) You must not use emission capture system or add-on control device parameter data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities when calculating data averages. You must use all the data collected during all other periods in calculating the data averages for determining compliance with the emission capture system and add-on control device operating limits.

(7) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the CPMS to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system is out of control and data are not available for required calculations is a deviation from the monitoring requirements.

(b) *Capture system bypass line.* You must meet the requirements of paragraphs (b)(1) and (2) of this section for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

(1) You must monitor or secure the valve or closure mechanism controlling the bypass line in a nondiverting position in such a way that the valve or closure mechanism cannot be opened without creating a record that the valve was opened. The method used to monitor or secure the valve or closure mechanism must meet one of the requirements specified in paragraphs (b)(1)(i) through (iv) of this section.

(i) *Flow control position indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. The time of occurrence and flow control position must be recorded, as well as every time the flow direction is changed. The flow control position

indicator must be installed at the entrance to any bypass line that could divert the emissions away from the add-on control device to the atmosphere.

(ii) *Car-seal or lock-and-key valve closures.* Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. You must visually inspect the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position, and the emissions are not diverted away from the add-on control device to the atmosphere.

(iii) *Valve closure monitoring.* Ensure that any bypass line valve is in the closed (nondiverting) position through monitoring of valve position at least once every 15 minutes. You must inspect the monitoring system at least once every month to verify that the monitor will indicate valve position.

(iv) *Automatic shutdown system.* Use an automatic shutdown system in which the coating operation is stopped when flow is diverted by the bypass line away from the add-on control device to the atmosphere when the coating operation is running. You must inspect the automatic shutdown system at least once every month to verify that it will detect diversions of flow and shut down the coating operation.

(2) If any bypass line is opened, you must include a description of why the bypass line was opened and the length of time it remained open in the semiannual compliance reports required in § 63.3120.

(c) *Thermal oxidizers and catalytic oxidizers.* If you are using a thermal oxidizer or catalytic oxidizer as an add-on control device (including those used to treat desorbed concentrate streams from concentrators or carbon adsorbers), you must comply with the requirements in paragraphs (c)(1) through (3) of this section:

(1) For a thermal oxidizer, install a gas temperature monitor in the firebox of the thermal oxidizer or in the duct immediately downstream of the firebox before any substantial heat exchange occurs.

(2) For a catalytic oxidizer, install a gas temperature monitor upstream of the catalyst bed. If you establish the operating parameters for a catalytic oxidizer under § 63.3167(b)(1) through (3), you must also install a gas temperature monitor downstream of the catalyst bed. The temperature monitors must be in the gas stream immediately before and after the catalyst bed to measure the temperature difference across the bed. If you establish the operating parameters for a catalytic oxidizer under § 63.3167(b)(4) through (6), you need not install a gas temperature monitor downstream of the catalyst bed.

(3) For all thermal oxidizers and catalytic oxidizers, you must meet the requirements in paragraphs (a)(1) through (6) and (c)(3)(i) through (vii) of this section for each gas temperature monitoring device.

(i) Locate the temperature sensor in a position that provides a representative temperature.

(ii) Use a temperature sensor with a measurement sensitivity of 4 degrees Fahrenheit or 0.75 percent of the temperature value, whichever is larger.

(iii) Shield the temperature sensor system from electromagnetic interference and chemical contaminants.

(iv) If a gas temperature chart recorder is used, it must have a measurement sensitivity in the minor division of at least 20 degrees Fahrenheit.

(v) Perform an electronic calibration at least semiannually according to the procedures in the manufacturer's owners manual. Following the electronic calibration, you must conduct a temperature sensor validation check in which a second or redundant temperature sensor placed nearby the process temperature sensor must yield a reading within 30 degrees Fahrenheit of the process temperature sensor reading.

(vi) Conduct calibration and validation checks any time the sensor exceeds the manufacturer's specified maximum operating temperature range or install a new temperature sensor.

(vii) At least monthly, inspect components for integrity and electrical connections for continuity, oxidation, and galvanic corrosion.

(d) *Regenerative carbon adsorbers.* If you are using a regenerative carbon adsorber as an add-on control device, you must monitor the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle, the carbon bed temperature after each regeneration and cooling cycle, and comply with paragraphs (a)(3) through (5) and (d)(1) and (2) of this section.

(1) The regeneration desorbing gas mass flow monitor must be an integrating device having a measurement sensitivity of plus or minus 10 percent, capable of recording the total regeneration desorbing gas mass flow for each regeneration cycle.

(2) The carbon bed temperature monitor must have a measurement sensitivity of 1 percent of the temperature (as expressed in degrees Fahrenheit) recorded or 1 degree Fahrenheit, whichever is greater, and must be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.

(e) *Condensers.* If you are using a condenser, you must monitor the condenser outlet (product side) gas temperature and comply with paragraphs (a)(1) through (6) and (e)(1) and (2) of this section.

(1) The gas temperature monitor must have a measurement sensitivity of 1 percent of the temperature (expressed in degrees Fahrenheit) recorded or 1 degree Fahrenheit, whichever is greater.

(2) The temperature monitor must provide a gas temperature record at least once every 15 minutes.

(f) *Concentrators.* If you are using a concentrator, such as a zeolite wheel or rotary carbon bed concentrator, you must install a temperature monitor in the desorption gas stream. The temperature monitor must meet the requirements in paragraphs (a)(1) through (6) and (c)(3) of this section.

(g) *Emission capture systems.* The capture system monitoring system must comply with the applicable requirements in paragraphs (g)(1) and (2) of this section.

(1) For each flow measurement device, you must meet the requirements in paragraphs (a)(1) through (6) and (g)(1)(i) through (iv) of this section.

(i) Locate a flow sensor in a position that provides a representative flow measurement in the duct from each capture device in the emission capture system to the add-on control device.

(ii) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(iii) Conduct a flow sensor calibration check at least semiannually.

(iv) At least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.

(2) For each pressure drop measurement device, you must comply with the requirements in paragraphs (a)(1) through (6) and (g)(2)(i) through (vi) of this section.

(i) Locate the pressure tap(s) in a position that provides a representative measurement of the pressure drop across each opening you are monitoring.

(ii) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(iii) Check pressure tap pluggage daily.

(iv) Using an inclined manometer with a measurement sensitivity of 0.0002 inch water, check gauge calibration quarterly and transducer calibration monthly.

(v) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum

operating pressure range or install a new pressure sensor.

(vi) At least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.

Compliance Requirements for the Combined Primer-Surfacer, Topcoat, Final Repair, Glass Bonding Primer, and Glass Bonding Adhesive Emission Limitations and the Separate Electrodeposition Primer Emission Limitations

§ 63.3170 By what date must I conduct performance tests and other initial compliance demonstrations?

(a) *New and reconstructed affected sources.* For a new or reconstructed affected source, you must meet the requirements of paragraphs (a)(1) through (4) of § 63.3160.

(b) *Existing affected sources.* For an existing affected source, you must meet the requirements of paragraphs (b)(1) through (3) of § 63.3160.

§ 63.3171 How do I demonstrate initial compliance?

(a) You must meet all of the requirements of this section to demonstrate initial compliance. To demonstrate initial compliance, the organic HAP emissions from the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) must meet the applicable emission limitation in § 63.3090(b) or § 63.3091(b); and the organic HAP emissions from the electrodeposition primer operation must meet the applicable emissions limitations in § 63.3092(a) or (b).

(b) *Compliance with operating limits.* Except as provided in § 63.3160(a)(4), you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by § 63.3093, using the procedures specified in §§ 63.3167 and 63.3168.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plans required by § 63.3094(b) and (c) during the initial compliance period, as specified in § 63.3130.

(d) *Compliance with emission limits.* You must follow the procedures in § 63.3161(e) through (n), excluding materials used in electrodeposition primer operations, to demonstrate compliance with the applicable emission limit in § 63.3090(b) or § 63.3091(b). You must follow the procedures in paragraph (e) of this section to demonstrate compliance with the emission limit in § 63.3092(a), or paragraphs (f) through (g) of this section to demonstrate compliance with the emission limitations in § 63.3092(b).

(e) *Determine the mass fraction of each organic HAP in each material used in the electrodeposition primer operation.* You must determine the mass fraction of each organic HAP for each material used in the electrodeposition primer operation during the compliance period by using one of the options in paragraphs (e)(1) through (3) of this section.

(1) *Method 311 (appendix A to 40 CFR part 63).* You may use Method 311 for determining the mass fraction of each organic HAP.

(2) *Alternative method.* You may use an alternative test method for determining the mass fraction of organic HAP once the Administrator has approved it. You must follow the procedure in § 63.7(f) to submit an alternative test method for approval.

(3) *Information from the supplier or manufacturer of the material.* You may rely on information other than that generated by the test methods specified in paragraphs (e)(1) and (2) of this section, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens, as specified in 29 CFR 1910.1200(d)(4), and at 1.0 percent by mass or more for other compounds. If there is a disagreement between such information and results of a test conducted according to paragraph (e)(1) or (2) of this section, then the test method results will take precedence unless after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the facility's data are correct.

(f) *Capture of electrodeposition bake oven emissions.* You must show that the electrodeposition bake oven meets the criteria in sections 5.3 through 5.5 of Method 204 of appendix M to 40 CFR part 51 and directs all of the exhaust gases from the bake oven to an add-on control device.

(g) *Control of electrodeposition bake oven emissions.* Determine the efficiency of each control device on each electrodeposition bake oven using the procedures in §§ 63.3164 and 63.3166.

(h) *Compliance demonstration.* To demonstrate initial compliance, the organic HAP emissions from the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) must meet the applicable emission limitation in § 63.3090(b) or § 63.3091(b); the organic HAP emissions from the electrodeposition primer operation must meet the applicable emissions limitations in § 63.3092(a) or (b). You must keep all records as required by §§ 63.3130 and 63.3131. As part of the Notification of Compliance Status required by § 63.3110, you must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate from the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to § 63.3082(c) was less than or equal to the applicable emission limit in § 63.3090(b) or § 63.3091(b), and the organic HAP emissions from the electrodeposition primer operation met the applicable emissions limitations in § 63.3092(a) or (b), and you achieved the operating limits required by § 63.3093 and the work practice standards required by § 63.3094.

§ 63.3172 [Reserved]

§ 63.3173 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance with the applicable emission limit in § 63.3090(b) or § 63.3091(b), the organic HAP emission rate for each compliance period determined according to the procedures in § 63.3171 must be equal to or less than the applicable emission limit in § 63.3090(b) or § 63.3091(b). A compliance period consists of 1 month. Each month after the end of the initial compliance period described in § 63.3170 is a compliance period consisting of that month. You must perform the calculations in § 63.3171 on a monthly basis.

(b) If the organic HAP emission rate for any 1 month compliance period exceeded the applicable emission limit in § 63.3090(b) or § 63.3091(b), this is a deviation from the emission limitation for that compliance period and must be

reported as specified in §§ 63.3110(c)(6) and 63.3120(a)(6).

(c) You must meet the requirements of § 63.3163(c) through (j).

Other Requirements and Information

§ 63.3175 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, EPA, or a delegated authority such as your State, local, or tribal agency. If the Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are listed in paragraphs (c)(1) through (4) of this section:

(1) Approval of alternatives to the work practice standards in § 63.3094 under § 63.6(g).

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.3176 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in the General Provisions of this part, and in this section as follows:

Add-on control device means an air pollution control device, such as a thermal oxidizer or carbon adsorber, that reduces pollution in an air stream by destruction or removal before discharge to the atmosphere.

Add-on control device efficiency means the ratio of the emissions collected or destroyed by an add-on air pollution control device to the total emissions that are introduced into the control device, expressed as a percentage.

Adhesive means any chemical substance that is applied for the purpose of bonding two surfaces together.

Adhesive and sealer material means adhesives, sealers and thinners added to adhesives or sealers.

Anti-chip coating means a specialty type of coating designed to reduce stone chipping damage. It is applied on selected vehicle surfaces that are exposed to impingement by stones and other road debris. It is typically applied after the electrodeposition primer and before the topcoat Anti-chip coatings are a type of *primer-surfacer*.

Automobile means a motor vehicle designed to carry up to eight passengers, excluding vans, sport utility vehicles, and motor vehicles designed primarily to transport light loads of property. See also *Light-duty truck*.

Automobile and/or light-duty truck assembly plant means facilities involved primarily in assembly of automobiles and light-duty trucks, including coating facilities and processes.

Bake oven air seal means an entry or entry vestibule to or an exit or exit vestibule from a bake oven which isolates the bake oven from the area immediately preceding (for an entry or entry vestibule) or immediately following (for an exit or exit vestibule) the bake oven. No significant VOC generating activity takes place in a bake oven air seal. Fresh air is supplied into a bake oven air seal and is then directed in part into the bake oven and in part into the area immediately preceding or immediately following the bake oven.

Basecoat/clearcoat means a topcoat system applied to exterior and selected interior vehicle surfaces primarily to provide an aesthetically pleasing appearance and acceptable durability performance. It consists of a layer of pigmented basecoat color coating, followed directly by a layer of a clear or semitransparent coating. It may include multiple layers of color coats or tinted clear materials.

Blackout coating means a type of specialty coating applied on selected vehicle surfaces (including areas of the engine compartment visible through the grill, and window and pillar trim) to provide a cosmetic appearance. Typically black or dark gray color. Blackout coating may be included in either the primer-surfacer or topcoat operations.

Body part means exterior parts such as hoods, fenders, doors, roof, quarter panels, decklids, tail gates, and cargo beds. Body parts were traditionally made of sheet metal, but now are also made of plastic. Bumpers, fascia, and cladding are not body parts.

Capture device means a hood, enclosure, room, floor sweep, or other means of containing or collecting emissions and directing those emissions into an add-on air pollution control device.

Capture efficiency or capture system efficiency means the portion (expressed as a percentage) of the pollutants from an emission source that is delivered to an add-on control device.

Capture system means one or more capture devices intended to collect emissions generated by a coating operation in the use of coatings, both at the point of application and at subsequent points where emissions from the coatings occur, such as flash-off, drying, or curing. As used in this subpart, multiple capture devices that collect emissions generated by a coating operation are considered a single capture system.

Catalytic oxidizer means a device for oxidizing pollutants or waste materials via flame and heat incorporating a catalyst to aid the combustion at lower operating temperature.

Cleaning material means a solvent used to remove contaminants and other materials such as dirt, grease, oil, and dried (*e.g.*, depainting) or wet coating from a substrate before or after coating application; or from equipment associated with a coating operation, such as spray booths, spray guns, tanks, and hangers. Thus, it includes any cleaning material used on substrates or equipment or both.

Coating means a material applied to a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, paints, sealants, caulks, inks, adhesives, primers, deadeners, and maskants. Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances are not considered coatings for the purposes of this subpart.

Coating operation means equipment used to apply coating to a substrate (coating application) and to dry or cure the coating after application. A single coating operation always includes at least the point at which a coating is applied and all subsequent points in the affected source where organic HAP emissions from that coating occur. There may be multiple coating operations in an affected source. Coating application with hand-held nonrefillable aerosol containers, touchup bottles, touchup markers, marking pens, or pinstriping equipment is not a coating operation for the purposes of this subpart. The application of temporary materials such as protective oils and "travel waxes" that are designed to be removed from the vehicle before it is delivered to a

retail purchaser is not a coating operation for the purposes of this subpart.

Coating solids means the nonvolatile portion of the coating.

Container means a receptacle, such as a can, vessel, tote, or tank, in which coatings, solvents or cleaning materials are held, stored, mixed, or carried.

Continuous parameter monitoring system (CPMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this subpart; used to sample, condition (if applicable), analyze, and provide a record of coating operation, or capture system, or add-on control device parameters.

Controlled coating operation means a coating operation from which some or all of the organic HAP emissions are routed through an emission capture system and add-on control device.

Day tank means tank with agitation and pumping system used for mixing and continuous circulation of coatings from the paint storage area to the spray booth area of the paint shop.

Deadener means a specialty coating applied to selected vehicle surfaces for the purpose of reducing the sound of road noise in the passenger compartment.

Deadener material means deadener and thinner added to deadener.

Deposited solids means the coating solids which remain on the substrate or object being painted.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard; fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or fails to meet any emission limit or operating limit or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart. A deviation is not always a violation.

Electrodeposition primer or electrocoating primer means a process of applying a protective, corrosion-resistant waterborne primer on exterior and interior surfaces that provides thorough coverage of recessed areas. It is a dip coating method that uses an electrical field to apply or deposit the conductive coating onto the part. The object being painted acts as an electrode that is oppositely charged from the particles of paint in the dip tank. Also referred to as E-Coat, Uni-Prime, and ELPO Primer.

Emission limitation means an emission limit, operating limit, or work practice standard.

Final repair means the operations performed and coating(s) applied to completely-assembled motor vehicles or to parts that are not yet on a completely assembled motor vehicle to correct damage or imperfections in the coating. The curing of the coatings applied in these operations is accomplished at a lower temperature than that used for curing primer-surfacer and topcoat. This lower temperature cure avoids the need to send parts that are not yet on a completely assembled vehicle through the same type of curing process used for primer-surfacer and topcoat and is necessary to protect heat sensitive components on completely assembled motor vehicles.

Flash-off area means the portion of a coating process between the coating application station and the next coating application station or drying oven where solvent begins to evaporate from the coated vehicle.

Glass bonding adhesive means an adhesive used to bond windshield or other glass to an automobile or light-duty truck body.

Glass bonding primer means a primer applied to windshield or other glass, or to body openings to prepare the glass or body openings for the application of glass bonding adhesive, or the installation of adhesive bonded glass.

Guide coat means *Primer-surfacer.*

In-line repair means the operation performed and coating(s) applied to correct damage or imperfections in the topcoat on parts that are not yet on a completely assembled motor vehicle. The curing of the coatings applied in these operations is accomplished at essentially the same temperature as that used for curing the previously applied topcoat. Also referred to as high bake repair or high bake reprocess. In-line repair is considered part of topcoat.

Light-duty truck means vans, sport utility vehicles, and motor vehicles designed primarily to transport light loads of property with gross vehicle weight rating of 8,500 lbs or less.

Manufacturer's formulation data means data on a material (such as a coating) that are supplied by the material manufacturer based on knowledge of the ingredients used to manufacture that material, rather than based on testing of the material with the test methods specified in §§ 63.3151 and 63.3161. Manufacturer's formulation data may include, but are not limited to, information on density, organic HAP content, volatile organic matter content, and coating solids content.

Mass fraction of organic HAP means the ratio of the mass of organic HAP to the mass of a material in which it is contained, expressed as kg of organic HAP per kg of material.

Month means a calendar month or a pre-specified period of 28 days to 35 days to allow for flexibility in recordkeeping when data are based on a business accounting period.

Organic HAP content means the mass of organic HAP per mass of coating material.

Paint line means a set of coating operations which includes a topcoat operation and, if present, includes electrodeposition primer, primer-surfacer, final repair, glass bonding primer and glass bonding adhesive operations in which the same new automobile or new light-duty truck bodies, or body parts for new automobiles, or new light-duty trucks are coated. The most typical paint line consists of a set of electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations in which the same new automobile or new light-duty truck bodies are coated.

Paint shop means the collection of all areas at the facility in which new automobile or new light-duty truck bodies, or body parts for new automobiles or new light-duty trucks are phosphated and coated (including application, flash-off, drying and curing of electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, glass bonding adhesive, deadener, adhesives and sealers); all coating operations added to the affected source pursuant to § 63.3082(c); all areas at the facility in which substrates or equipment are cleaned relating to the coating of new automobile or new light-duty truck bodies, the coating of body parts for new automobiles or new light-duty trucks, or coating operations added to the affected source pursuant to § 63.3082(c); and all areas at the facility used for storage, mixing, conveying and waste handling of coatings, thinners and cleaning materials related to the coating of new automobile or new light-duty truck bodies, the coating of body parts for new automobiles or new light-duty trucks, or coating operations added to the affected source pursuant to § 63.3082(c). If there is no application of topcoat to new automobile or new light-duty truck bodies, or body parts for new automobiles or new light-duty trucks at the facility, then for purposes of this subpart the facility does not have a paint shop.

Permanent total enclosure (PTE) means a permanently installed enclosure that meets the criteria of Method 204 of appendix M, 40 CFR part 51, for a PTE and that directs all the exhaust gases from the enclosure to an add-on control device.

Primer-surfacer means an intermediate protective coating applied on the electrodeposition primer and under the topcoat. It provides adhesion, protection, and appearance properties to the total finish. Also called a guide coat or surfacer. *Anti-chip coatings* are a type of primer-surfacer.

Purge/clean operation means the process of flushing paint out and cleaning the spray lines when changing colors or to remove undesired material. It includes use of air and solvents to clean the lines.

Purge capture means the capture of purge solvent and materials into a closed collection system immediately after purging the system. It is used to prevent the release of organic HAP emissions and includes the disposal of the captured purge material.

Purge material means the coating and associated cleaning solvent materials expelled from the spray system during the process of cleaning the spray lines and applicators when color-changing or to maintain the cleanliness of the spray system.

Protective oil means an organic material that is applied to metal for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oil includes, but is not limited to, lubricating oils, evaporative oils (including those that evaporate completely), and extrusion oils.

Research or laboratory operations means surface coating for which the primary purpose is research and development of new processes and products, that is conducted under the close supervision of technically trained personnel, and that is not part of the manufacture of final or intermediate products for commercial purposes, except in a *de minimis* manner.

Responsible official means responsible official as defined in 40 CFR 70.2.

Sealer means a high solids, high viscosity material, generally, but not always, applied in the paint shop after the body has received an electrodeposition primer coating. The primary purpose of sealers is to fill body joints completely so that there is no intrusion of water, gases or corrosive materials into the passenger area of the body compartment. Also referred to as sealants.

Spray booth means a ventilated structure housing automatic and/or manual spray application equipment for coating operations. Includes facilities for the capture and entrapment of particulate overspray.

Spray booth air seal means an entry vestibule to or exit vestibule from a spray booth which isolates the spray booth from the area immediately preceeding (for an entry vestibule) or immediately following (for an exit vestibule) the spray booth. No coating application or other VOC generating activity takes place in a spray booth air seal. Fresh air is supplied into a spray booth air seal and is then directed in part into the spray booth and in part into the area immediately preceeding or immediately following the spray booth.

Startup, initial means the first time equipment is used in a facility to produce a salable product.

Surface preparation means use of a cleaning material on a portion of or all of a substrate. This includes use of a cleaning material to remove dried coating, which is sometimes called "depainting."

Surfacer means *Primer-surfacer.*

Tack-wipe means solvent impregnated cloth used to remove dust from surfaces prior to application of coatings.

Temporary total enclosure means an enclosure constructed for the purpose of measuring the capture efficiency of pollutants emitted from a given source as defined in Method 204 of appendix M, 40 CFR part 51.

Thermal oxidizer means a device for oxidizing air pollutants or waste materials via flame and heat.

Thinner means an organic solvent that is added to a coating after the coating is received from the supplier.

Topcoat means the final coating system applied to provide the final color and/or a protective finish. The topcoat may be a monocoat color or basecoat/clearcoat system. In-line repair and two-tone are part of topcoat.

Total volatile hydrocarbon (TVH) means the total amount of nonaqueous volatile organic matter determined according to Methods 204 and 204A through F of appendix M to 40 CFR part 51 and substituting the term TVH each place in the methods where the term VOC is used. The TVH includes both VOC and non-VOC.

Touchup bottle means a glass or metal bottle of less than 0.10 liter volume furnished with a brush that is permanently attached to the bottle closure.

Transfer efficiency means the ratio of the amount of coating solids deposited onto the surface of the object to the total amount of coating solids sprayed while applying the coating to the object.

Uncontrolled coating operation means a coating operation from which none of the organic HAP emissions are routed through an emission capture system and add-on control device.

Volatile organic compound (VOC) means any compound defined as VOC in 40 CFR 51.100(s).

Volume fraction of coating solids means the ratio of the volume of coating solids (also known as volume of nonvolatiles) to the volume of coating; liters of coating solids per liter of coating.

Tables to Subpart IIII of Part 63

If you are required to comply with operating limits by § 63.3093, you must comply with the applicable operating limits in the following table:

TABLE 1 TO SUBPART IIII OF PART 63.—OPERATING LIMITS FOR CAPTURE SYSTEMS AND ADD-ON CONTROL DEVICES

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by
1. Thermal oxidizer	a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to § 63.3167(a).	i. Collecting the combustion temperature data according to § 63.3168(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average combustion temperature at or above temperature limit.
2. Catalytic oxidizer	a. The average temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to § 63.3167(b); and either.	i. Collecting the temperature data temperature according to § 63.3168(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature before the catalyst bed at or above the temperature limit.

TABLE 1 TO SUBPART IIII OF PART 63.—OPERATING LIMITS FOR CAPTURE SYSTEMS AND ADD-ON CONTROL DEVICES—Continued

For the following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by
	b. Ensure that the average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to § 63.3167(b)(2); or.	i. Collecting the temperature data according to § 63.3168(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature difference at or above the temperature difference limit; or
	c. Develop and implement an inspection and maintenance plan according to § 63.3167(b)(4).	i. Maintaining an up-to-date inspection maintenance plan, records of annual catalyst activity checks, records of monthly inspections of the oxidizer system, and records of the annual internal inspections of the catalyst bed. If a problem is discovered during a monthly or annual inspection required by § 63.3167(b)(4), you must take corrective action as soon as practicable consistent with the manufacturer's recommendations.
3. Regenerative carbon adsorber.	a. The total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each carbon bed regeneration cycle must not fall below the total regeneration desorbing gas mass flow limit established according to § 63.3167(c). b. The temperature of the carbon bed after completing each regeneration and any cooling cycle must not exceed the carbon bed temperature limit established according to § 63.3167(c).	i. Measuring the total regeneration desorbing gas (*e.g.*, steam or nitrogen) mass flow for each regeneration cycle according to § 63.3168(d); and ii. Maintaining the total regeneration desorbing gas mass flow at or above the mass flow limit. i. Measuring the temperature of the carbon bed after completing each regeneration and any cooling cycle according to § 63.3168(d); and ii. Operating the carbon beds such that each carbon bed is not returned to service until completing each regeneration and any cooling cycle until the recorded temperature of the carbon bed is at or below the temperature limit.
4. Condenser	a. The average condenser outlet (product side) gas temperature in any 3-hour period must not exceed the temperature limit established according to § 63.3167(d).	i. Collecting the condenser outlet (product side) gas temperature according to § 63.3168(e); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average gas temperature at the outlet at or below the temperature limit.
5. Concentrators, including zeolite wheels and rotary carbon adsorbers.	a. The average desorption gas inlet temperature in any 3-hour period must not fall below the limit established according to § 63.3167(e).	i. Collecting the temperature data according to § 63.3168(f); ii. Reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average temperature at or above the temperature limit.
6. Emission capture system that is a PTE.	a. The direction of the air flow at all times must be into the enclosure; and either. b. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or. c. The pressure drop across the enclosure must be at least 0.007 inch water, as established in Method 204 of appendix M to 40 CFR part 51.	i. Collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to § 63.3168(g)(1) or the pressure drop across the enclosure according to § 63.3168(g)(2); and ii. Maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.
7. Emission capture system that is not a PTE.	a. The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to § 63.3167(f).	i. Vollecting the gas volumetric flow rate or duct static pressure for each capture device according to § 63.3168(g); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limit.

You must comply with the applicable General Provisions requirements according to the following table:

TABLE 2 TO SUBPART IIII OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART IIII OF PART 63

Citation	Subject	Applicable to subpart IIII	Explanation
§63.1(a)(1)–(12)	General Applicability	Yes.	
§63.1(b)(1)–(3)	Initial Applicability Determination	Yes	Applicability to subpart IIII is also specified in §63.3081.
§63.1(c)(1)	Applicability After Standard Established	Yes.	
§63.1(c)(2)	Applicability of Permit Program for Area Sources.	No	Area sources are not subject to subpart IIII.
§63.1(c)(5)	Extensions and Notifications	Yes.	
§63.1(e)	Applicability of Permit Program Before Relevant Standard is Set.	Yes.	
§63.2	Definitions	Yes	Additional definitions are specified in §63.3176.
§63.3(a)–(c)	Units and Abbreviations	Yes.	
§63.4(a)(1)–(5)	Prohibited Activities	Yes.	
§63.4(b)–(c)	Circumvention/Fragmentation	Yes.	
§63.5(a)	Preconstruction Review Applicability	Yes.	
§63.5(b)(1)–(6)	Requirements for Existing, Newly Constructed, and Reconstructed Sources.	Yes.	
§63.5(d)	Application for Approval of Construction/Reconstruction.	Yes.	
§63.5(e)	Approval of Construction/Reconstruction	Yes.	
§63.5(f)	Approval of Construction/Reconstruction Based on Prior State Review.	Yes.	
§63.6(a)	Compliance With Standards and Maintenance Requirements—Applicability.	Yes.	
§63.6(b)(1)–(7)	Compliance Dates for New and Reconstructed Sources.	Yes	Section 63.3083 specifies the compliance dates.
§63.6(c)(1)–(5)	Compliance Dates for Existing Sources	Yes	Section 63.3083 specifies the compliance dates.
§63.6(e)(1)–(2)	Operation and Maintenance	Yes.	
§63.6(e)(3)	SSMP	Yes	Only sources using an add-on control device to comply with the standard must complete SSMP.
§63.6(f)(1)	Compliance Except During Startup, Shutdown, and Malfunction.	Yes	Applies only to sources using an add-on control device to comply with the standards.
§63.6(f)(2)–(3)	Methods for Determining Compliance	Yes.	
§63.6(g)(1)–(3)	Use of an Alternative Standard	Yes.	
§63.6(h)	Compliance With Opacity/Visible Emission Standards.	No	Subpart IIII does not establish opacity standards and does not require continuous opacity monitoring systems (COMS).
§63.6(i)	Extension of Compliance	Yes.	
63.6(j)	Presidential Compliance Exemption	Yes.	
§63.7(a)(1)	Performance Test Requirements—Applicability.	Yes	Applies to all affected sources. Additional requirements for performance testing are specified in §§63.3164 and 63.3166.
§63.7(a)(2)	Performance Test Requirements—Dates.	Yes	Applies only to performance tests for capture system and control device efficiency at sources using these to comply with the standards. Section 63.3160 specifies the schedule for performance test requirements that are earlier than those specified in §63.7(a)(2).
§63.7(a)(3)	Performance Tests Required By the Administrator.	Yes.	
§63.7(b)–(e)	Performance Test Requirements—Notification, Quality Assurance, Facilities Necessary for Safe Testing Conditions During Test.	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards.
§63.7(f)	Performance Test Requirements—Use of Alternative Test Method.	Yes	Applies to all test methods except those used to determine capture system efficiency.
§63.7(g)–(h)	Performance Test Requirements—Data Analysis, Recordkeeping, Reporting, Waiver of Test.	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards.

TABLE 2 TO SUBPART IIII OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART IIII OF PART 63—Continued

Citation	Subject	Applicable to subpart IIII	Explanation
§ 63.8(a)(1)–(3)	Monitoring Requirements—Applicability	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standards. Additional requirements for monitoring are specified in § 63.3168.
§ 63.8(a)(4)	Additional Monitoring Requirements	No	Subpart IIII does not have monitoring requirements for flares.
§ 63.8(b)	Conduct of Monitoring	Yes	
63.8(c)(1)–(3)	Continuous Monitoring Systems (CMS) Operation and Maintenance.	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standards. Additional requirements for CMS operations and maintenance are specified in § 63.3168.
§ 63.8(c)(4)	CMS	No	Section 63.3168 specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply with the standards.
§ 63.89(c)(5)	COMS	No	Subpart IIII does not have opacity or visible emission standards.
§ 63.8(c)(6)	CMS Requirements	No	Section 63.3168 specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply with the standards.
§ 63.8(c)(7)	CMS Out-of-Control Periods	No	
§ 63.8(c)(8)	CMS Out-of-Control Periods Reporting	No	Section 63.3120 requires reporting of CMS out-of-control periods.
§ 63.8(d)–(e)	Quality Control Program and CMS Performance Evaluation.	No	Subpart IIII does not require the use of continuous emissions monitoring systems.
§ 63.8(f)(1)–(5)	Use of an Alternative Monitoring Method.	Yes.	
§ 63.8(f)(6)	Alternative to Relative Accuracy Test	No	Subpart IIII does not require the use of continuous emissions monitoring systems.
§ 63.8(g)(1)–(5)	Data Reduction	No	Sections 63.3167 and 63.3168 specify monitoring data reduction.
§ 63.9(a)–(d)	Notification Requirements	Yes.	
§ 63.9(e)	Notification of Performance Test	Yes	Applies only to capture system and add-on control device performance tests at sources using these to comply with the standards.
§ 63.9(f)	Notification of Visible Emissions/Opacity Test.	No	Subpart IIII does not have opacity or visible emission standards.
§ 63.9(g)(1)–(3)	Additional Notifications When Using CMS.	No	Subpart IIII does not require the use of continuous emissions monitoring systems.
§ 63.9(h)	Notification of Compliance Status	Yes	Section 63.3110 specifies the dates for submitting the notification of compliance status.
§ 63.9(i)	Adjustment of Submittal Deadlines	Yes	
§ 63.9(j)	Change in Previous Information	Yes.	
§ 63.10(a)	Recordkeeping/Reporting—Applicability and General Information.	Yes.	
§ 63.10(b)(1)	General Recordkeeping Requirements	Yes	Additional requirements are specified in §§ 63.3130 and 63.3131.
§ 63.10(b)(2)(i)–(v)	Recordkeeping Relevant to Startup, Shutdown, and Malfunction Periods and CMS.	Yes	Requirements for startup, shutdown, and malfunction records only apply to capture systems and add-on control devices used to comply with the standards.
§ 63.10(b)(2)(vi)–(xi)		Yes.	
§ 63.10(b)(2)(xii)	Records	Yes.	

TABLE 2 TO SUBPART IIII OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART IIII OF PART 63—Continued

Citation	Subject	Applicable to subpart IIII	Explanation
§ 63.10(b)(2)(xiii)		No	Subpart IIII does not require the use of continuous emissions monitoring systems.
§ 63.10(b)(2)(xiv)		Yes.	
§ 63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations.	Yes.	
§ 63.10(c)(1)–(6)	Additional Recordkeeping Requirements for Sources with CMS.	Yes.	
§ 63.10(c)(7)–(8)		No	The same records are required in § 63.3120(a)(6).
§ 63.10(c)(9)–(15)		Yes	
§ 63.10(d)(1)	General Reporting Requirements	Yes	Additional requirements are specified in § 63.3120.
§ 63.10(d)(2)	Report of Performance Test Results	Yes	Additional requirements are specified in § 63.3120(b).
§ 63.10(d)(3)	Reporting Opacity or Visible Emissions Observations.	No	Subpart IIII does not require opacity or visible emissions observations.
§ 63.10(d)(4)	Progress Reports for Sources With Compliance Extensions.	Yes.	
§ 63.10(d)(5)	Startup, Shutdown, and Malfunction Reports.	Yes	Applies only to capture systems and add-on control devices used to comply with the standards.
§ 63.10(e)(1)–(2)	Additional CMS Reports	No	Subpart IIII does not require the use of continuous emissions monitoring systems.
§ 63.10(e)(3)	Excess Emissions/CMS Performance Reports.	No	Section 63.3120(b) specifies the contents of periodic compliance reports.
§ 63.10(e)(4)	COMS Data Reports	No	Subpart IIII does not specify requirements for opacity or COMS.
§ 63.10(f)	Recordkeeping/Reporting Waiver	Yes	
§ 63.11	Control Device Requirements/Flares	No	Subpart IIII does not specify use of flares for compliance.
§ 63.12	State Authority and Delegations	Yes.	
§ 63.13	Addresses	Yes.	
§ 63.14	Incorporation by Reference	Yes.	
§ 63.15	Availability of Information/Confidentiality	Yes.	

You may use the mass fraction values for which you do not have test data or in the following table for solvent blends manufacturer's formulation data:

TABLE 3 TO SUBPART IIII OF PART 63.—DEFAULT ORGANIC HAP MASS FRACTION FOR SOLVENTS AND SOLVENT BLENDS

Solvent/solvent blend	CAS. No.	Average organic HAP mass fraction	Typical organic HAP, percent by mass
1. Toluene	108–88–3	1.0	Toluene.
2. Xylene(s)	1330–20–7	1.0	Xylenes, ethylbenzene.
3. Hexane	110–54–3	0.5	n-hexane.
4. n-Hexane	110–54–3	1.0	n-hexane.
5. Ethylbenzene	100–41–4	1.0	Ethylbenzene.
6. Aliphatic 140		0	None.
7. Aromatic 100		0.02	1% xylene, 1% cumene.
8. Aromatic 150		0.09	Naphthalene.
9. Aromatic naphtha	64742–95–6	0.02	1% xylene, 1% cumene.
10. Aromatic solvent	64742–94–5	0.1	Naphthalene.
11. Exempt mineral spirits	8032–32–4	0	None.
12. Ligroines (VM & P)	8032–32–4	0	None.
13. Lactol spirits	64742–89–6	0.15	Toluene.
14. Low aromatic white spirit	64742–82–1	0	None.
15. Mineral spirits	64742–88–7	0.01	Xylenes.
16. Hydrotreated naphtha	64742–48–9	0	None.
17. Hydrotreated light distillate	64742–47–8	0.001	Toluene.
18. Stoddard solvent	8052–41–3	0.01	Xylenes.
19. Super high-flash naphtha	64742–95–6	0.05	Xylenes.
20. Varsol® solvent	8052–49–3	0.01	0.5% xylenes, 0.5% ethylbenzene.
21. VM & P naphtha	64742–89–8	0.06	3% toluene, 3% xylene.

TABLE 3 TO SUBPART IIII OF PART 63.—DEFAULT ORGANIC HAP MASS FRACTION FOR SOLVENTS AND SOLVENT BLENDS—Continued

Solvent/solvent blend	CAS. No.	Average organic HAP mass fraction	Typical organic HAP, percent by mass
22. Petroleum distillate mixture	68477–31–6	0.08	4% naphthalene, 4% biphenyl.

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data:

TABLE 4 TO SUBPART IIII OF PART 63.—DEFAULT ORGANIC HAP MASS FRACTION FOR PETROLEUM SOLVENT GROUPS [a]

Solvent type	Average organic HAP mass fraction	Typical organic HAP, percent by mass
Aliphatic [b]	0.03	1% Xylene, 1% Toluene, and 1% Ethylbenzene.
Aromatic [c]	0.06	4% Xylene, 1% Toluene, and 1% Ethylbenzene.

[a] Use this table only if the solvent blend does not match any of the solvent blends in Table 3 to this subpart, and you only know whether the blend is aliphatic or aromatic.

[b] *E.g.*, Mineral Spirits 135, Mineral Spirits 150 EC, Naphtha, Mixed Hydrocarbon, Aliphatic Hydrocarbon, Aliphatic Naphtha, Naphthol Spirits, Petroleum Spirits, Petroleum Oil, Petroleum Naphtha, Solvent Naphtha, Solvent Blend.

[c] *E.g.*, Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

Appendix A to Subpart IIII of Part 63—Determination of Capture Efficiency of Automobile and Light-Duty Truck Spray Booth Emissions From Solvent-borne Coatings Using Panel Testing

1.0 Applicability, Principle, and Summary of Procedure.

1.1 Applicability.

This procedure applies to the determination of capture efficiency of automobile and light-duty truck spray booth emissions from solvent-borne coatings using panel testing. This procedure can be used to determine capture efficiency for partially controlled spray booths (*e.g.*, automated spray zones controlled and manual spray zones not controlled) and for fully controlled spray booths.

1.2 Principle.

1.2.1 The volatile organic compounds (VOC) associated with the coating solids deposited on a part (or panel) in a controlled spray booth zone (or group of contiguous controlled spray booth zones) partition themselves between the VOC that volatilize in the controlled spray booth zone (principally between the spray gun and the part) and the VOC that remain on the part (or panel) when the part (or panel) leaves the controlled spray booth zone. For solvent-borne coatings essentially all of the VOC associated with the coating solids deposited on a part (or panel) in a controlled spray booth zone that volatilize in the controlled spray booth zone pass through the waterwash and are exhausted from the controlled spray booth zone to the control device.

1.2.2 The VOC associated with the overspray coating solids in a controlled spray booth zone partition themselves between the VOC that volatilize in the controlled spray booth zone and the VOC that are still tied to the overspray coating solids when the overspray coating solids hit the waterwash. For solvent-borne coatings almost all of the VOC associated with the overspray coating solids that volatilize in the controlled spray booth zone pass through the waterwash and are exhausted from the controlled spray booth zone to the control device. The exact fate of the VOC still tied to the overspray coating solids when the overspray coating solids hit the waterwash is unknown. This procedure assumes that none of the VOC still tied to the overspray coating solids when the overspray coating solids hit the waterwash are captured and delivered to the control device. Much of this VOC may become entrained in the water along with the overspray coating solids. Most of the VOC that become entrained in the water along with the overspray coating solids leave the water, but the point at which this VOC leave the water is unknown. Some of the VOC still tied to the overspray coating solids when the overspray coating solids hit the waterwash may pass through the waterwash and be exhausted from the controlled spray booth zone to the control device.

1.2.3 This procedure assumes that the portion of the VOC associated with the overspray coating solids in a controlled spray booth zone that volatilizes in the controlled spray booth zone, passes through the waterwash and is exhausted from the controlled spray booth zone to the control device is equal to the portion of the VOC associated with the coating solids deposited on a part (or panel) in that controlled spray booth zone that volatilizes in the controlled spray booth zone, passes through the waterwash, and is exhausted from the controlled spray booth zone to the control device. This assumption is equivalent to treating all of the coating solids sprayed in the controlled spray booth zone as if they are deposited coating solids (*i.e.*, assuming 100 percent transfer efficiency) for purposes of using a panel test to determine spray booth capture efficiency.

1.2.4 This is a conservative (low) assumption for the portion of the VOC associated with the overspray coating solids in a controlled spray booth zone that volatilizes in the controlled spray booth zone. Thus, this assumption results in an underestimate of conservative capture efficiency. The overspray coating solids have more travel time and distance from the spray gun to the waterwash than the deposited coating solids have between the spray gun and the part (or panel). Therefore, the portion of the VOC associated with the overspray coating solids in a controlled spray booth zone that volatilizes in the controlled spray booth zone should be greater than the portion of the VOC associated with the coating solids deposited on a part (or panel) in that controlled spray booth zone that volatilizes in that controlled spray booth zone.

1.3 Summary of Procedure.

1.3.1 A panel test is performed to determine the mass of VOC that remains on the panel when the panel leaves a controlled spray booth zone. The total mass of VOC associated with the coating solids deposited on the panel is calculated.

1.3.2 The percent of the total VOC associated with the coating solids deposited on the panel in the controlled spray booth zone that remains on the panel when the panel leaves the controlled section of the spray booth is then calculated from the ratio of the two previously determined masses. The percent of the total VOC associated with the coating solids deposited on the panel in the controlled spray booth zone that is captured and delivered to the control device equals 100 minus this percentage. (The mass of VOC associated with the coating solids deposited on the panel which is volatilized and captured in the controlled spray booth zone equals the difference between the total mass of VOC associated with the coating solids deposited on the panel and the mass of VOC remaining with the coating solids

deposited on the panel when the panel leaves the controlled spray booth zone.)

1.3.3 The percent of the total VOC associated with the coating sprayed in the controlled spray booth zone that is captured and delivered to the control device is assumed to be equal to the percent of the total VOC associated with the coating solids deposited on the panel in the controlled spray booth zone that is captured and delivered to the control device. The percent of the total VOC associated with the coating sprayed in the entire spray booth that is captured and delivered to the control device can be calculated by multiplying the percent of the total VOC associated with the coating sprayed in the controlled spray booth zone that is captured and delivered to the control device by the fraction of coating sprayed in the spray booth that is sprayed in the controlled spray booth zone.

2.0 Procedure.

2.1 You may conduct panel testing to determine the capture efficiency of spray booth emissions. You must follow the instructions and calculations in this appendix A, and use the panel testing procedures in ASTM Method D5087–02, "Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)" (incorporated by reference, see § 63.14), or the guidelines presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA–450/3–88–018 (Docket ID No. OAR–2002–0093 and Docket ID No. A–2001–22). You must weigh panels at the points described in section 2.5 of this appendix A and perform calculations as described in sections 3 and 4 of this appendix A. You may conduct panel tests on the production paint line in your facility or in a laboratory simulation of the production paint line in your facility.

2.2 You may conduct panel testing on representative coatings as described in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA–450/3–88–018 (Docket ID No. OAR–2002–0093 and Docket ID No. A–2001–22). If you panel test representative coatings, then you may calculate either a unique percent capture efficiency value for each coating grouped with that representative coating, or a composite percent capture efficiency value for the group of coatings. If you panel test each coating, then you must convert the panel test result for each coating to a unique percent capture efficiency value for that coating.

2.3 Identification of Controlled Spray Booth Zones.

You must identify each controlled spray booth zone or each group of contiguous controlled spray booth zones to be tested. (For example, a controlled bell zone immediately followed by a controlled robotic zone.) Separate panel tests are required for non-contiguous controlled spray booth zones. The flash zone between the last basecoat zone and the first clearcoat zone makes these zones non-contiguous.

2.4 Where to Apply Coating to the Panel.

If you are conducting a panel test for a single controlled spray booth zone, then you must apply coating to the panel only in that controlled spray booth zone. If you are conducting a panel test for a group of contiguous controlled spray booth zones, then you must apply coating to the panel only in that group of contiguous controlled spray booth zones.

2.5 How to Process and When to Weigh the Panel.

The instructions in this section pertain to panel testing of coating, i, or of the coating representing the group of coatings that includes coating, i.

2.5.1 You must weigh the blank panel. (Same as in bake oven panel test.) The mass of the blank panel is represented by $W_{blank,i}$ (grams).

2.5.2 Apply coating, i, or the coating representing coating, i, to the panel in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested (in plant test), or in a simulation of the controlled spray booth zone or group of contiguous controlled spray booth zones being tested (laboratory test).

2.5.3 Remove and weigh the wet panel as soon as the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested. (Different than bake oven panel test.) This weighing must be conducted quickly to avoid further evaporation of VOC. The mass of the wet panel is represented by $W_{wet,i}$ (grams).

2.5.4 Return the wet panel to the point in the coating process or simulation of the coating process where it was removed for weighing.

2.5.5 Allow the panel to travel through the rest of the coating process in the plant or laboratory simulation of the coating process. You must not apply any more coating to the panel after it leaves the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested. The rest of the coating process or simulation of the coating process consists of:

2.5.5.1 All of the spray booth zone(s) or simulation of all of the spray booth zone(s) located after the controlled spray booth zone or group of contiguous controlled spray booth zones being tested and before the bake oven where the coating applied to the panel is cured,

2.5.5.2 All of the flash-off area(s) or simulation of all of the flash-off area(s) located after the controlled spray booth zone or group of contiguous controlled spray booth zones being tested and before the bake oven where the coating applied to the panel is cured, and

2.5.5.3 The bake oven or simulation of the bake oven where the coating applied to the panel is cured.

2.5.6 After the panel exits the bake oven, you must cool and weigh the baked panel. (Same as in bake oven panel test.) The mass of the baked panel is represented by $W_{baked,i}$ (grams).

3.0 Panel Calculations.

The instructions in this section pertain to panel testing of coating, i, or of the coating representing the group of coatings that includes coating, i.

3.1 The mass of coating solids (from coating, i, or from the coating representing coating, i, in the panel test) deposited on the panel equals the mass of the baked panel minus the mass of the blank panel as shown in Equation A–1.

$$W_{sdep,i} = W_{baked,i} - W_{blank,i} \qquad \text{(Eq. A-1)}$$

Where:

$W_{sdep,\ i}$ = Mass of coating solids (from coating, i, or from the coating representing coating, i, in the panel test) deposited on the panel, grams.

3.2 The mass of VOC (from coating, i, or from the coating representing coating, i, in the panel test) remaining on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested equals the mass of the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested minus the mass of the baked panel as shown in Equation A–2.

$$W_{rem,i} = W_{wet,i} - W_{baked,i} \qquad \text{(Eq. A-2)}$$

Where:

$W_{rem,i}$ = Mass of VOC (from coating, i, or from the coating representing coating, i, in the panel test) remaining on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, grams.

3.3 Calculate the mass of VOC (from coating, i, or from the coating representing coating, i, in the panel test) remaining on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested per mass of coating solids deposited on the panel as shown in Equation A–3.

$$P_{m,i} = \left(W_{rem,i}\right)/\left(W_{sdep,i}\right) \qquad \text{(Eq. A-3)}$$

Where:

$P_{m,i}$ = Mass of VOC (from coating, i, or from the coating representing coating, i, in the panel test) remaining on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested per mass of coating solids deposited on the panel, grams of VOC remaining per gram of coating solids deposited.

$W_{rem,\ i}$ = Mass of VOC (from coating, i, or from the coating representing coating, i, in the panel test) remaining on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, grams.

$W_{sdep,i}$ = Mass of coating solids (from coating, i, or from the coating representing coating, i, in the panel test) deposited on the panel, grams.

4.0 Converting Panel Result to Percent Capture.

The instructions in this section pertain to panel testing of for coating, i, or of the coating representing the group of coatings that includes coating, i.

4.1 If you panel test representative coatings, then you may convert the panel test result for each representative coating from section 3.3 of this appendix A either to a unique percent capture efficiency value for each coating grouped with that representative coating by using coating specific values for the mass fraction coating solids and mass fraction VOC in section 4.2 of this appendix A, or to a composite percent capture efficiency value for the group of coatings by using the average values for the group of coatings for mass fraction coating solids and mass fraction VOC in section 4.2 of this appendix A. If you panel test each coating, then you must convert the panel test result for each coating to a unique percent capture efficiency value by using coating specific values for the mass fraction coating solids and mass fraction VOC in section 4.2 of this appendix A. The mass fraction of VOC in the coating and the mass fraction of solids in the coating must be determined by Method 24 (appendix A to 40 CFR part 60) or by following the guidelines for combining analytical VOC content and formulation solvent content presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA–450/3–88–018 (Docket ID No. OAR–2002–0093 and Docket ID No. A–2001–22).

4.2 The percent of VOC for coating, i, or composite percent of VOC for the group of coatings including coating, i, associated with the coating solids deposited on the panel that remains on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested is calculated using Equation A–4.

$$Pvoc_{pan,i} = \left(P_{m,i}\right)\left(W_{s,i}\right)(100)/\left(Wvoc_{c,i}\right) \qquad \text{(Eq. A-4)}$$

Where:

$Pvoc_{pan,i}$ = Percent of VOC for coating, i, or composite percent of VOC for the group of coatings including coating, i, associated with the coating solids deposited on the panel that remains on the wet panel when the wet panel leaves the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested, percent.

$P_{m,i}$ = Mass of VOC (from coating, i, or from the coating representing coating, i, in the panel test) remaining on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested per mass of coating solids deposited on the panel, grams of VOC remaining per gram of coating solids deposited.

$W_{s,i}$ = Mass fraction of coating solids for coating, i, or average mass fraction of coating solids for the group of coatings including coating, i, grams coating solids per gram coating, determined by Method 24 (appendix A to 40 CFR part 60) or by following the guidelines for combining analytical VOC content and formulation solvent content presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA–450/3–88–018 (Docket ID No. OAR–2002–0093 and Docket ID No. A–2001–22).

$Wvoc_{c,i}$ = Mass fraction of VOC in coating, i, or average mass fraction of VOC for the group of coatings including coating, i, grams VOC per grams coating, determined by Method 24 (appendix A to 40 CFR part 60) or the guidelines for combining analytical VOC content and formulation solvent content presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA–450/3–88–018 (Docket ID No. OAR–2002–0093 and Docket ID No. A–2001–22).

4.3 The percent of VOC for coating, i, or composite percent of VOC for the group of coatings including coating, i, associated with the coating sprayed in the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested that is captured in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, $CE_{zone,i}$ (percent), is calculated using Equation A–5.

$$CE_{zone,i} = 100 - Pvoc_{pan,i} \qquad \text{(Eq. A-5)}$$

Where:

$CE_{zone,i}$ = Capture efficiency for coating, i, or for the group of coatings including coating, i, in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested as a percentage of the VOC in the coating, i, or of the group of coatings including coating, i, sprayed in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, percent.

4.4 Calculate the percent of VOC for coating, i, or composite percent of VOC for the group of coatings including coating, i, associated with the entire volume of coating, i, or with the total volume of all of the coatings grouped with coating, i, sprayed in the entire spray booth that is captured in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, using Equation A–6. The volume of coating, i, or of the group of coatings including coating, i, sprayed in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, and the volume of coating, i, or of the group of coatings including coating, i, sprayed in the entire spray booth may be determined from gun on times and fluid flow rates or from direct measurements of coating usage.

$$CE_i = \left(CE_{zone,i}\right)\left(V_{zone,i}\right)/\left(V_{booth,i}\right) \qquad \text{S(Eq. A-6)}$$

Where:

CE_i = Capture efficiency for coating, i, or for the group of coatings including coating, i, in the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested as a percentage of the VOC in the coating, i, or of the group of coatings including coating, i, sprayed in the entire spray booth in which the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested, percent.

$V_{zone,i}$ = Volume of coating, i, or of the group of coatings including coating, i, sprayed in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, liters.

$V_{booth,i}$ = Volume of coating, i, or of the group of coatings including coating, i, sprayed in the entire spray booth containing the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested, liters.

4.5 If you conduct multiple panel tests for the same coating or same group of coatings in the same spray booth (either because the coating or group of coatings is controlled in non-contiguous zones of the spray booth, or because you choose to conduct separate panel tests for contiguous controlled spray booth zones), then you may add the result from section 4.4 for each such panel test to get the total capture efficiency for the coating or group of coatings over all of the controlled zones in the spray booth for the coating or group of coatings.

Subpart MMMM—[Amended]

■ 4. Section 63.3881 is amended by adding paragraphs (c)(17), and (d), and revising paragraphs (e)(2) introductory text and (e)(3) to read as follows:

§ 63.3881 Am I subject to this subpart?

* * * * *

(c) * * *

(17) Surface coating of metal components of automobiles and light-duty trucks that meets the applicability criteria in § 63.3082(b) for the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) at a facility that meets the applicability criteria in § 63.3081(b).

(d) If your facility meets the applicability criteria in § 63.3081(b) of the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII), and you perform surface coating of metal parts or products that meets both the applicability criteria in § 63.3082(c) and the applicability criteria of the Surface Coating of Miscellaneous Metal Parts and Products (40 CFR part 63, subpart MMMM), then for the surface coating of any or all of your metal parts or products that meets the applicability criteria in § 63.3082(c), you may choose to comply with the requirements of subpart IIII of this part in lieu of complying with the Surface Coating of Miscellaneous Metal Parts and Products NESHAP. Surface coating operations on metal parts or products not intended for use in automobiles or light-duty trucks (for example, parts for motorcycles or lawn mowers) cannot be made part of your affected source under subpart IIII of this part.

(e) * * *

(2) You may comply with the emission limitation representing the predominant surface coating activity at your facility, as determined according to paragraphs (e)(2)(i) and (ii) of this section. However, you may not establish high performance, rubber-to-metal, or extreme performance fluoropolymer coating operations as the predominant activity. You must not consider any surface coating activity that is subject to the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) in determining the predominant surface coating activity at your facility.

* * * * *

(3) You may comply with a facility-specific emission limit calculated from the relative amount of coating activity that is subject to each emission limit. If you elect to comply using the facility-specific emission limit alternative, then compliance with the facility-specific emission limit and the emission limitations in this subpart for all surface coating operations constitutes compliance with this and other applicable surface coating NESHAP. The procedures for calculating the facility-specific emission limit are specified in § 63.3890. In calculating a facility-specific emission limit, you must include coating activities that meet the applicability criteria of other surface coating NESHAP and constitute more than 1 percent of total coating activities at your facility. You must not consider any surface coating activity that is subject to the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) in determining a facility-specific emission limit for your facility. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than 1 percent of total coating activities need not be included in the calculation of the facility-specific emission limit but must be included in the compliance calculations.

■ 5. Section 63.3910 is amended by revising paragraph (b) to read as follows:

§ 63.3910 What notifications must I submit?

* * * * *

(b) *Initial Notification.* You must submit the initial notification required by § 63.9(b) for a new or reconstructed affected source no later than 120 days after initial startup or 120 days after January 2, 2004, whichever is later. For an existing affected source, you must submit the initial notification no later than 1 year after January 2, 2004. If you are using compliance with the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (subpart IIII of this part) as provided for under § 63.3881(d) to constitute compliance with this subpart for any or all of your metal parts coating operations, then you must include a statement to this effect in your initial notification, and no other notifications are required under this subpart in regard to those metal parts coating operations. If you are complying with another NESHAP that constitutes the predominant activity at your facility under § 63.3881(e)(2) to constitute compliance with this subpart for your metal parts coating operations, then you must include a statement to this effect in your initial notification, and no other notifications are required under this subpart in regard to those metal parts coating operations.

* * * * *

Subpart PPPP—[Amended]

■ 6. Section 63.4481 is amended by adding paragraphs (c)(16) and (d), and revising paragraphs (e)(2) introductory text and (3) to read as follows:

§ 63.4481 Am I subject to this subpart?

* * * * *

(c) * * *

(16) Surface coating of plastic components of automobiles and light-duty trucks that meet the applicability criteria in § 63.3082(b) of the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) at a facility that meets the applicability criteria in § 63.3081(b).

(d) If your facility meets the applicability criteria in § 63.3081(b) of the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) and you perform surface coating of plastic parts or products that meets both the applicability criteria in § 63.3082(c) and the applicability criteria of this subpart, then for the surface coating of any or all of your plastic parts or products that meets the applicability criteria in § 63.3082(c), you may choose to comply with the requirements of subpart IIII of this part in lieu of complying with this subpart. Surface coating operations on plastic parts or products not intended for use in automobiles or light-duty trucks (for example, parts for motorcycles or lawn mowers) cannot be made part of your affected source under subpart IIII of this part.

(e) * * *

(2) You may comply with the emission limitation representing the predominant surface coating activity at your facility, as determined according to paragraphs (e)(2)(i) and (ii) of this section. However, you may not establish assembled on-road vehicle or automotive lamp coating operations as the predominant activity. You must not consider any surface coating activity that is subject to the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) in determining the predominant surface coating activity at your facility.

* * * * *

(3) You may comply with a facility-specific emission limit calculated from the relative amount of coating activity that is subject to each emission limit. If you elect to comply using the facility-specific emission limit alternative, then compliance with the facility-specific emission limit and the emission limitations in this subpart for all surface coating operations constitutes compliance with this subpart and other applicable surface coating NESHAP.

The procedures for calculating the facility-specific emission limit are specified in § 63.4490. In calculating a facility-specific emission limit, you must include coating activities that meet the applicability criteria of other surface coating NESHAP and constitute more than 1 percent of total coating activities at your facility. You must not consider any surface coating activity that is subject to the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) in determining a facility-specific emission limit for your facility. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than 1 percent of total coating activities need not be included in the calculation of the facility-specific emission limit but must be included in the compliance calculations.

■ 7. Section 63.4510 is amended by revising paragraph (b) to read as follows:

§ 63.4510 What notifications must I submit?

* * * * *

(b) *Initial notification.* You must submit the initial notification required by § 63.9(b) for a new or reconstructed affected source no later than 120 days after initial startup or 120 days after April 19, 2004, whichever is later. For an existing affected source, you must submit the initial notification no later than 1 year after April 19, 2004. If you are using compliance with the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (subpart IIII of this part) as provided for under § 63.4481(d) to constitute compliance with this subpart for any or all of your plastic parts coating operations, then you must include a statement to this effect in your initial notification, and no other notifications are required under this subpart in regard to those plastic parts coating operations. If you are complying with another NESHAP that constitutes the predominant activity at your facility under § 63.4481(e)(2) to constitute compliance with this subpart for your plastic parts coating operations, then you must include a statement to this effect in your initial notification, and no other notifications are required under this subpart in regard to those plastic parts coating operations.

* * * * *

PART 264—[AMENDED]

■ 8. The authority citation for part 264 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6924, and 6925, *et seq.*

■ 9. Section 264.1050 is amended by adding paragraph (h) after paragraph (g) and before the note to read as follows:

§ 264.1050 Applicability.

* * * * *

(h) Purged coatings and solvents from surface coating operations subject to the national emission standards for hazardous air pollutants (NESHAP) for the surface coating of automobiles and light-duty trucks at 40 CFR part 63, subpart IIII, are not subject to the requirements of this subpart.

* * * * *

PART 265—[AMENDED]

■ 10. The authority citation for part 265 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6924, 6925, and 6935, *et seq.*

■ 11. Section 265.1050 is amended by adding paragraph (g) after paragraph (f) and before the note to read as follows:

§ 265.1050 Applicability.

* * * * *

(g) Purged coatings and solvents from surface coating operations subject to the national emission standards for hazardous air pollutants (NESHAP) for the surface coating of automobiles and light-duty trucks at 40 CFR part 63, subpart IIII, are not subject to the requirements of this subpart.

* * * * *

[FR Doc. 04–8215 Filed 4–23–04; 8:45 am]
BILLING CODE 6560–50–P

Dated: April 27, 2004.

David C. Stalfort,

Commander, U.S. Coast Guard, Captain of the Port Memphis.

[FR Doc. 04–10353 Filed 5–5–04; 8:45 am]

BILLING CODE 4910–15–P

POSTAL SERVICE

39 CFR Part 111

Permissible Barcode Symbology for Parcels Eligible for the Barcode Discount

AGENCY: Postal Service.

ACTION: Final rule with request for comments.

SUMMARY: We are amending the information published in the **Federal Register** on July 14, 1998 [63 FR 37946], that announced new requirements for Package Services parcels eligible for the barcode discount. The barcode discount was extended to Standard Mail® machinable parcels in the **Federal Register** on December 15, 2000 [65 FR 78537] that announced the R2000–1 rate case. The standards implementing the new requirements were subsequently published in *Postal Bulletin* 22122 (2–19–04, pages 6–8). The *Postal Bulletin* notice allowed for the optional use of the human-readable presentation of the ZIP Code™. This final rule modifies the standards to now require mailers to include the human-readable equivalent of the ZIP Code with all barcodes.

DATES: Effective May 6, 2004. Submit comments on or before May 20, 2004.

ADDRESSES: Mail or deliver comments to the Manager, Mailing Standards, Attn: Obatalye B. Akinwole, U.S. Postal Service, 1735 N Lynn Street, Room 3025, Arlington, VA 22209–6038. Written comments may be submitted also by facsimile transmission to (703) 292–4058. Copies of all written comments will be available for inspection and photocopying between 9 a.m. and 4 p.m., Monday through Friday, at Postal Service Headquarters Library, 11th Floor North, 475 L'Enfant Plaza SW., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Obatalye B. Akinwole at (703) 292–3643.

SUPPLEMENTARY INFORMATION: On July 14, 1998, the Postal Service published in the **Federal Register** [63 FR 37946] a final rule setting forth Domestic Mail Manual (DMM) standards for Package Services barcodes. The DMM standards were subsequently published in *Postal Bulletin* 22122 (2–19–04, pages 6–8). Under the previous rule, the human-readable equivalent of the ZIP Code information was optional. Under the new rule, mailers are required to include the human-readable equivalent of the ZIP Code information to be eligible for the barcode discount. No other changes are made to the standards in DMM C850.

Using the UCC/EAN Code 128 barcode symbology will benefit mailers in a number of ways:

- Increased accuracy and improved service—reduces manual processing of parcels.
- Variable length—compact, accurate, and reliable.
- Easy data capture capabilities—international availability.

In order to reduce the looping of mail in processing, this rule requires the printing of the applicable AI and ZIP Code or ZIP+4® code whenever a barcode is printed.

List of Subjects in 39 CFR Part 111

Administrative practice and procedure, Postal Service.

■ For the reasons noted above, the Postal Service adopts the following changes to the *Domestic Mail Manual*, which is incorporated by reference in the *Code of Federal Regulations* (CFR). *See* 39 CFR part 111.

PART 111—[AMENDED]

■ 1. The authority citation for 39 CFR Part 111 continues to read as follows:

Authority: 5 U.S.C. 552(a); 39 U.S.C. 101, 401, 403, 404, 3001–3011, 3201–3219, 3403–3406, 3621, 3626, 5001.

■ 2. Revise the *Domestic Mail Manual* (DMM) as follows:

Domestic Mail Manual (DMM)

* * * * *

C Characteristics and Content

* * * * *

C800 Automation-Compatible Mail

* * * * *

C850 Barcoding Standards for Parcels

* * * * *

2.0 Barcode Characteristics

* * * * *

2.5 Human-Readable Information

The human-readable information on the barcode must conform to one of the following options:

[Revise item a to read as follows:]

a. If the barcode is printed on the delivery address label and in close proximity to the address, the human-readable equivalent of the ZIP Code or ZIP+4 code (omitting the AI "420") encoded in the barcode preceded by the word "ZIP" must be printed between ⅛ inch and ½ inch below the barcode in 10-point or larger bold, sans serif type. This standard applies to barcodes printed under 1.1 or 1.2a, 1.2b, and 1.3.

* * * * *

[Revise item c to read as follows:]

c. For barcodes printed under 1.2 or 1.3, the human-readable presentation of the concatenated barcode must include the AI "91" and the full tracking identification number as text, the AI "420," and the ZIP Code or ZIP+4 code. The AI "420" and ZIP Code information must be parsed separately from the main body of the barcode text (*e.g.*, 420 99999 9101 2345 6789 1234 5678).

* * * * *

We will publish an appropriate amendment to 39 CFR part 111 to reflect these changes.

Neva R. Watson,

Attorney, Legislative.

[FR Doc. 04–10154 Filed 5–5–04; 8:45 am]

BILLING CODE 7710–12–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[OAR–2002–0045, FRL–7657–2]

RIN 2060–AK53

National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule; technical correction

SUMMARY: On February 18, 2003, the EPA promulgated amendments to the national emission standards for hazardous air pollutants (NESHAP) f chemical recovery combustion sourc at kraft, soda, sulfite, and stand-alon semichemical pulp mills. The techn corrections in the final rule correct several cross-references in order to consistent with the text shifts mad the February 18, 2003 amendmen

DATES: *Effective Date:* The techni corrections are effective May 6, 2

ADDRESSES: Docket ID No. OAR- 0045 and Docket ID No. A–94–6 containing supporting informat in the development of the final available for public viewing at Docket Center (Air Docket), EP Room B–102, 1301 Constitutio Avenue, NW., Washington, D EPA Docket Center Public Re

TABLE 1 TO SUBPART MM OF PART 63—GENERAL PROVISIONS APPLICABILITY TO SUBPART MM

General Provisions reference	Summary of requirements	Applies to supbart MM	Explanation
*	*	*	*
63.7(a)(1)	Performance testing requirements—applicability.	Yes	§ 63.865(c)(1) specifies the only exemption from performance testing allowed under subpart MM.
*	*	*	*
63.7(h)	Waiver of performance tests	Yes	§ 63.865(c)(1) specifies the only exemption from performance testing allowed under subpart MM.
*	*	*	*

* * * * *

[FR Doc. 04–10343 Filed 5–5–04; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 439

Pharmaceutical Manufacturing Point Source Category

CFR Correction

In Title 40 of the Code of Federal Regulations, Parts 425 to 699, revised as of July 1, 2003, the duplicated text from pages 401 and 408 is removed and the following text is reinstated.

Text to be reinstated on page 401:

* * * * *

Appendix A to Part 439—Tables

Authority: 33 U.S.C. 1311, 1314, 1316, 1317, 1318, 1342 and 1361.

Source: 48 FR 49821, Oct. 27, 1983, unless otherwise noted.

General

§ 439.0 Applicability.

(a) This part applies to process wastewater discharges resulting from the research and manufacture of pharmaceutical products, which are generally, but not exclusively, reported under SIC 2833, SIC 2834 and SIC 2836 (1987 Standard Industrial Classification Manual).

(b) Although not reported under SIC 2833, SIC 2834 and SIC 2836, discharges from the manufacture of other pharmaceutical products to which this part applies include (but are not limited to):

(1) Products manufactured by one or more of the four types of manufacturing processes described in subcategories A, B, C or D of this part, and considered by the Food and Drug Administration to be pharmaceutical active ingredients;

(2) Multiple end-use products (e.g., components of formulations, chemical intermediates, or final products) derived from pharmaceutical manufacturing operations and intended for use primarily in pharmaceutical applications;

(3) Pharmaceutical products and intermediates not subject to other categorical limitations and standards, provided the manufacturing processes generate process wastewaters that are similar to those derived from the manufacture of pharmaceutical products elsewhere (an example of such a product is citric acid);

(4) Cosmetic preparations that are reported under SIC 2844 and contain pharmaceutical active ingredients, or active ingredients that are intended for the treatment of a skin condition. (These preparations do not include products such as lipsticks or perfumes that serve to enhance appearance, or provide a pleasing odor, but do not enhance skin care. Also excluded are deodorants, manicure preparations, shaving preparations and non-medicated shampoos that do not function primarily as a skin treatment.)

(c) The provisions of this part do not apply to wastewater discharges resulting from the manufacture of the following products, or as a result of providing one or more of the following services:

(1) Surgical and medical instruments and apparatus reported under SIC 3841;

(2) Orthopedic, prosthetic, and surgical appliances and supplies reported under SIC 3842;

(3) Dental equipment and supplies reported under SIC 3843;

(4) Medical laboratory services reported under SIC 8071;

(5) Dental laboratory services reported under SIC 8072;

(6) Outpatient care facility services reported under SIC 8081;

(7) Health and allied services reported under SIC 8091, and not classified elsewhere;

(8) Diagnostic devices other than those reported under SIC 3841;

(9) Animal feed products that include pharmaceutical active ingredients such as vitamins and antibiotics, where the major portion of the product is non-pharmaceutical, and the resulting process wastewater is not characteristic of process wastewater from the manufacture of pharmaceutical products;

(10) Food and beverage products fortified with vitamins or other pharmaceutical active ingredients, where the major portion of the product is non-pharmaceutical, and the resulting process wastewater is not characteristic of process wastewater from the manufacture of pharmaceutical products;

(11) Pharmaceutical products and intermediates subject to the provisions of 40 CFR part 414, provided their manufacture results in less than 50 percent of the total flow of process wastewater that is regulated by 40 CFR part 414 at the facility.

[63 FR 50424, Sept. 21, 1998]

§ 439.1 General definitions.

As used in this part:

(a) The general definitions, abbreviations and methods of analysis in 40 CFR part 401 shall apply.

* * * * *

Text to be reinstated on page 408:

* * * * *

standards specified in §§ 439.23 and 439.24.

[68 FR 12273, Mar. 13, 2003]

§ 439.26 Pretreatment standards for existing sources (PSES).

Except as provided in 40 CFR 403.7 and 403.13, any existing source subject to this subpart must achieve the

2.B.2 of the Instruction. Therefore, this rule is categorically excluded, under figure 2–1, paragraph (32)(e), of the Instruction, from further environmental documentation. It has been determined that this final rule does not significantly impact the environment.

List of Subjects in 33 CFR Part 117

Bridges.

Regulations

■ For the reasons set out in the preamble, the Coast Guard amends 33 CFR part 117 as follows:

PART 117—DRAWBRIDGE OPERATION REGULATIONS

■ 1. The authority citation for part 117 continues to read as follows:

Authority: 33 U.S.C. 499; Department of Homeland Security Delegation No. 0170.1; 33 CFR 1.05–1(g); section 117.255 also issued under the authority of Pub. L. 102–587, 106 Stat. 5039.

■ 2. In § 117.211, revise paragraphs (a)(3), (b) introductory text and (b)(1) to read as follows:

§ 117.211 Mystic River.

(a) * * *

(3) Commercial vessels shall be passed immediately at any time; however, the opening may be delayed up to eight minutes to allow trains, which have entered the drawbridge block and are scheduled to cross the bridge without stopping, to clear the block.

* * * * *

(b) The draw of the U.S. 1 Bridge, mile 2.8, at Mystic, shall open on signal except:

(1) From May 1 through October 31, from 7:40 a.m. to 6:40 p.m., the draw need only open hourly at twenty minutes before the hour.

* * * * *

Dated: May 21, 2004.

John L. Grenier,

Captain, U.S. Coast Guard, Acting Commander, First Coast Guard District.

[FR Doc. 04–12408 Filed 6–1–04; 8:45 am]

BILLING CODE 4910–15–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

National Emission Standards for Hazardous Air Pollutants for Source Categories

CFR Correction

In Title 40 of the Code of Federal Regulations, Part 63 (§§ 63.1200–63.1439), revised as of July 1, 2003, § 63.1331 is corrected by adding paragraph (a)(6) introductory text to read as follows:

§ 63.1331 Equipment leak provisions.

* * * * *

(a) * * *

(6) For pumps, valves, connectors, and agitators in heavy liquid service; pressure relief devices in light liquid or heavy liquid service; and instrumentation systems; owners or operators of affected sources producing PET shall comply with the requirements of paragraphs (a)(6)(i) and (ii) of this section instead of with the requirements of § 63.139. Owners or operators of PET affected sources shall comply with all other provisions of subpart H of this part for pumps, valves, connectors, and agitators in heavy liquid service; pressure relief devices in light liquid or heavy liquid service; and instrumentation systems, except as specified in paragraphs (a)(6)(iii) through (v) of this section.

* * * * *

[FR Doc. 04–55509 Filed 6–1–04; 8:45 am]

BILLING CODE 1505–01–D

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 141

[OW–2003–0067; FRL–7668–9]

RIN 2040–AE62

National Primary Drinking Water Regulations: Analytical Method for Uranium

AGENCY: Environmental Protection Agency (EPA).

ACTION: Direct final rule.

SUMMARY: The Environmental Protection Agency is taking direct final action to approve the use of three additional analytical methods for compliance determinations of uranium in drinking water. These methods use an inductively coupled plasma mass spectrometry (ICP–MS) technology that has gained wide acceptance in the analytical community. EPA believes that ICP–MS analytical methods could be more cost-effective, less labor-intensive or more sensitive than some of the technologies previously approved in the December 2000 Radionuclides rule. (65 FR 76708) This rule does not withdraw approval of any previously approved monitoring methods for uranium.

EPA is publishing this rule without prior proposal because we view this as noncontroversial and anticipate no adverse comment. However, in the "Proposed Rules" section of today's **Federal Register** publication, we are publishing a separate document that will serve as the proposal to National Primary Drinking Water Regulations: Analytical Method for Uranium if adverse comments are filed.

Through this action, EPA only requests comment on whether approval of the ICP–MS methods published by EPA, American Society of Testing and Materials International (ASTM), and the Standard Methods Committee (EPA 200.8, ASTM D5673–03, and SM 3125), is appropriate for compliance determinations of uranium in drinking water. Readers should please note that EPA is not requesting comment on any other use of these three ICP–MS methods, use of any other ICP–MS method, or any issue associated with the uranium standard or its implementation, and EPA will not respond to any comments other than those concerning the approval of these specific methods (as cited) for compliance determinations of uranium in drinking water.

DATES: This rule is effective on August 31, 2004, without further notice, unless EPA receives adverse comment by July 2, 2004. If we receive such comment, we will publish a timely withdrawal in the **Federal Register** informing the public that this rule will not take effect. The incorporation by reference of certain publications listed in this rule is approved by the Director of the Federal Register as of August 31, 2004.

ADDRESSES: Submit your comments, identified by Docket ID No. OW–2003–0067, by one of the following methods:

- Federal eRulemaking Portal: *http://www.regulations.gov*. Follow the on-line instructions for submitting comments.
- Agency Web site: *http://www.epa.gov/edocket*. EDOCKET, EPA's electronic public docket and comment system, is EPA's preferred method for receiving comments. Follow the on-line instructions for submitting comments.
- E-mail: *OW-Docket@epa.gov*.
- Mail: OW Docket, Environmental Protection Agency, Mailcode: 4101T, 1200 Pennsylvania Ave., NW., Washington, DC 20460. Please include a total of 4 copies.
- Hand Delivery: OW Docket, EPA Docket Center, EPA/DC, EPA West, Room B102, 1301 Constitution Avenue, NW., Washington, DC. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. OW–2003–0067. EPA's

Federal Register

Tuesday,
June 15, 2004

Part II

Environmental Protection Agency

40 CFR Part 63
National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[OAR–2002–0059; FRL–7630–8]

RIN 2060–AG–63

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national emission standards for hazardous air pollutants (NESHAP) for stationary reciprocating internal combustion engines (RICE) with a site-rating of more than 500 brake horsepower (HP). We have identified stationary RICE as major sources of hazardous air pollutants (HAP) emissions such as formaldehyde, acrolein, methanol, and acetaldehyde. The NESHAP will implement section 112(d) of the Clean Air Act (CAA) by requiring all major sources to meet HAP emission standards reflecting the application of the maximum achievable control technology (MACT) for RICE. We estimate that 40 percent of stationary RICE will be located at major sources and thus, subject to the final rule. As a result, the environmental, energy, and economic impacts presented in this preamble reflect these estimates. The final rule will protect public health by reducing exposure to air pollution, by reducing total national HAP emissions by an estimated 5,600 tons per year (tpy) in the 5th year after the rule is promulgated. The emissions reductions achieved by these standards will provide protection to the public and achieve a primary goal of the CAA.

DATES: The final rule is effective August 16, 2004. The incorporation by reference of certain publications listed in the final rule are approved by the Director of the Federal Register as of August 16, 2004.

ADDRESSES: *Docket.* Docket ID No. OAR–2002–0059 and Docket ID No. A–95–35 contain supporting information used in developing the standards. The dockets are located at the U.S. EPA, 1301 Constitution Avenue, NW., Washington, DC 20460 in room B102, and may be inspected from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays.

FOR FURTHER INFORMATION CONTACT: For further information concerning applicability and rule determinations, contact the appropriate State or local agency representative. For information concerning the analyses performed in developing the NESHAP, contact Mr. Sims Roy, Combustion Group, Emission Standards Division (MD–C439–01), U.S. EPA, Research Triangle Park, North Carolina 27711; telephone number (919) 541–5263; facsimile number (919) 541–5450; electronic mail address *roy.sims@epa.gov.*

SUPPLEMENTARY INFORMATION: *Regulated Entities.* Categories and entities potentially regulated by this action include:

Category	SIC [1]	NAICS [2]	Examples of regulated entities
Any industry using a stationary RICE as defined in the final rule.	4911	2211	Electric power generation, transmission, or distribution.
	4922	48621	Natural gas transmission.
	1311	211111	Crude petroleum and natural gas production.
	1321	211112	Natural gas liquids producers.
	9711	92811	National security.

[1] Standard Industrial Classification.
[2] North American Industry Classification System.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your facility is regulated by this action, you should examine the applicability criteria in § 63.6585 of the final rule. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Docket. The EPA has established an official public docket for this action including both Docket ID No. OAR–2002–0059 and Docket ID No. A–95–35. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. All items may not be listed under both docket numbers, so interested parties should inspect both docket numbers to ensure that they have received all materials relevant to the final rule. Although a part of the official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the Air and Radiation Docket in the EPA Docket Center, (EPA/DC) EPA West, Room B102, 1301 Constitution Ave., NW., Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566–1744, and the telephone number for the Air and Radiation Docket is (202) 566–1742. A reasonable fee may be charged for copying docket materials.

Electronic Access. You may access this **Federal Register** document electronically through the EPA Internet under the **Federal Register** listings at *http://www.epa.gov/fedrgstr/.*

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility identified above. Once in the system, select "search," then key in the appropriate docket identification number.

Judicial Review. Under section 307(b)(1) of the CAA, judicial review of the final NESHAP is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by August 16, 2004. Under section 307(d)(7)(B) of the CAA, only an objection to a rule or procedure raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under section 307(b)(2) of the CAA, the requirements established by the final rule may not be challenged separately in any civil or criminal

proceeding brought to enforce these requirements.

Background Information Document. The EPA proposed the NESHAP for stationary RICE on December 19, 2002 (67 FR 77830), and received 64 comment letters on the proposal. A background information document (BID) ("National Emission Standards for Stationary Reciprocating Internal Combustion Engines, Summary of Public Comments and Responses,") containing EPA's responses to each public comment is available in Docket ID Nos. OAR–2002–0059 and A–95–35.

Outline. The information presented in this preamble is organized as follows:

I. Background
A. What Is the Source of Authority for Development of NESHAP?
B. What Criteria Are Used in the Development of NESHAP?
C. What Are the Health Effects Associated with HAP from Stationary RICE?
D. What Is the Regulatory Development Background of the Source Category?
II. Summary of the Final Rule
A. What Sources Are Subject to the Final Rule?
B. What Source Categories and Subcategories Are Affected by the Final Rule?
C. What Are the Primary Sources of HAP Emissions and What Are the Emissions?
D. What Are the Emission Limitations and Operating Limitations?
E. What Are the Initial Compliance Requirements?
F. What Are the Continuous Compliance Provisions?
G. What Are the Notification, Recordkeeping and Reporting Requirements?
III. Summary of Significant Changes Since Proposal
A. Emission Limitations
B. Operating Limitations
C. Testing and Monitoring
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IV. Summary of Responses to Major Comments
A. Applicability
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C. Dates
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G. Risk-Based Approaches
H. Other
V. Summary of Environmental, Energy and Economic Impacts
A. What Are the Air Quality Impacts?
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D. What Are the Non-Air Health, Environmental and Energy Impacts?
VI. Statutory and Executive Order Reviews
A. Executive Order 12866: Regulatory Planning and Review
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D. Unfunded Mandates Reform Act of 1995
E. Executive Order 13132: Federalism
F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments
G. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks
H. Executive Order 13211: Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use
I. National Technology Transfer and Advancement Act
J. Congressional Review Act

I. Background

A. What Is the Source of Authority for Development of NESHAP?

Section 112 of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. The stationary RICE source category was listed as a major source category on July 16, 1992 (57 FR 31576). Major sources of HAP are those that have the potential to emit greater than 10 tpy of any one HAP or 25 tpy of any combination of HAP.

B. What Criteria Are Used in the Development of NESHAP?

Section 112 of the CAA requires that we establish NESHAP for the control of HAP from both new and existing sources in listed source categories. The CAA requires the NESHAP to reflect the maximum degree of reduction in emissions of HAP that is achievable. This level of control is commonly referred to as the MACT.

The MACT floor is the minimum control level allowed for NESHAP and is defined under section 112(d)(3) of the CAA. In essence, the MACT floor ensures that the standard is set at a level that assures that all regulated sources achieve the level of control at least as stringent as that already achieved by the better controlled and lower emitting sources in each source category or subcategory. For new sources, the MACT standards cannot be less stringent than the emission control that is achieved in practice by the best controlled similar source. The MACT standards for existing sources can be less stringent than standards for new sources, but they cannot be less stringent than the average emission limitation achieved by the best performing 12 percent of existing sources in the category or subcategory (or the best performing five sources for categories or subcategories with fewer than 30 sources).

In developing MACT, we also consider control options that are more stringent than the floor. We may establish standards more stringent than the floor based on the consideration of cost of achieving the emissions reductions, any non-air quality health and environmental impacts, and energy requirements.

C. What Are the Health Effects Associated With HAP From Stationary RICE?

Emission data collected during development of the NESHAP show that several HAP are emitted from stationary RICE. These HAP emissions are formed during combustion or result from HAP compounds contained in the fuel burned.

The HAP which have been measured in emission tests conducted on natural gas fired and distillate oil fired RICE include: 1,1,2,2-tetrachloroethane, 1,3-butadiene, 2,2,4-trimethylpentane, acetaldehyde, acrolein, benzene, chlorobenzene, chloroethane, ethylbenzene, formaldehyde, methanol, methylene chloride, n-hexane, naphthalene, polycyclic aromatic hydrocarbons, polycyclic organic matter, styrene, tetrachloroethane, toluene, and xylene. Metallic HAP from distillate oil fired stationary RICE that have been measured are: cadmium, chromium, lead, manganese, mercury, nickel, and selenium.

Although numerous HAP may be emitted from RICE, only a few account for essentially all of the mass of HAP emissions from stationary RICE. These HAP are: Formaldehyde, acrolein, methanol, and acetaldehyde.

The HAP emitted in the largest quantities from stationary RICE is formaldehyde. Formaldehyde is a probable human carcinogen and can cause irritation of the eyes and respiratory tract, coughing, dry throat, tightening of the chest, headache, and heart palpitations. Acute inhalation has caused bronchitis, pulmonary edema, pneumonitis, pneumonia, and death due to respiratory failure. Long-term exposure can cause dermatitis and sensitization of the skin and respiratory tract.

Acrolein is a cytotoxic agent, a powerful lacrimating agent, and a severe tissue irritant. Acute exposure to acrolein can cause severe irritation or corrosion of the eyes, nose, throat, and lungs, with tearing, pain in the chest, and delayed-onset pulmonary injury with depressed pulmonary function. Chronic exposure to acrolein can cause skin sensitization and contact dermatitis. Acrolein is not considered carcinogenic to humans.

Humans are very sensitive to the toxic effects of methanol including formic acidaemia, metabolic acidosis, ocular toxicity, nervous system depression,

blindness, coma, and death. A majority of the available information on methanol toxicity in humans is based on acute rather than long-term exposure. However, recent animal studies also indicate potential reproductive and developmental health consequences following chronic exposure to methanol in both mice and primates. Methanol has not been classified with respect to carcinogenicity.

The health effects for acetaldehyde are irritation of the eye mucous membranes, skin, and upper respiratory tract, and a central nervous system (CNS) depressant in humans. Acute exposure can cause conjunctivitis, coughing, difficult breathing, and dermatitis. Chronic exposure may cause heart and kidney damage, embryotoxicity, and teratogenic effects. Acetaldehyde is a probable carcinogen in humans.

We recently reviewed health effects associated with emissions of particulates from diesel engines in the context of regulating heavy duty motor vehicles and engines (66 FR 5001, January 18, 2001). Diesel particulate matter (PM) is not currently listed as a hazardous air pollutant for stationary sources under section 112 of the CAA and was not specifically reviewed under the rule, though constituent parts of diesel PM are subject to the final rule. We are continuing to review this issue in the context of regulating stationary RICE.

D. What Is the Regulatory Development Background of the Source Category?

In September 1996, we chartered the Industrial Combustion Coordinated Rulemaking (ICCR) advisory committee under the Federal Advisory Committee Act (FACA). The committee's objective was to develop recommendations for regulations for several combustion source categories under sections 112 and 129 of the CAA. The ICCR advisory committee, also known as the Coordinating Committee, formed Source Work Groups for the various combustor types covered under the ICCR. One work group, the RICE Work Group, was formed to research issues related to stationary RICE. The RICE Work Group submitted recommendations, information, and data analyses to the Coordinating Committee, which in turn considered them and submitted recommendations and information to EPA. The Committee's 2-year charter expired in September 1998. We considered the Committee's recommendations in developing the final rule for stationary RICE.

II. Summary of the Final Rule

A. What Sources Are Subject to the Final Rule?

The final rule applies to you if you own or operate stationary RICE which are located at a major source of HAP emissions, except if your stationary RICE all have a site-rating of 500 brake HP or less. A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year.

Section 112(n)(4) of the CAA requires that the aggregation of HAP for purposes of determining whether an oil and gas production facility is major or nonmajor be done only with respect to particular sites within the source and not on a total aggregated site basis. We referenced the requirements of section 112(n)(4) of the CAA in our NESHAP for Oil and Natural Gas Production Facilities in subpart HH of 40 CFR part 63. As in subpart HH, we plan to aggregate HAP emissions for the purposes of determining a major HAP source for RICE only with respect to particular sites within an oil and gas production facility. The sites are called surface sites and may include a combination of any of the following equipment: glycol dehydrators, tanks which have potential for flash emissions, RICE, and combustion turbines.

The EPA acknowledges that the definition of major source in the final rule may be different from those found in other rules; however, this does not alter the definition of major source in other rules and, therefore, does not affect the Oil and Natural Gas Production Facilities NESHAP (subpart HH of 40 CFR part 63) or any other rule applicability.

While all stationary RICE with a site-rating of more than 500 brake HP located at major sources are subject to the final rule, there are distinct requirements for regulated stationary RICE depending on their design, use, and fuel. The standards in the final rule have specific requirements for all new or reconstructed stationary RICE and for existing spark ignition 4 stroke rich burn (4SRB) stationary RICE located at a major source of HAP emissions, except that stationary RICE with a site-rating of 500 brake HP or less are not addressed in the final rule. New or reconstructed stationary RICE which operate exclusively as emergency or limited use units are subject only to initial notification requirements. New or reconstructed stationary RICE which combust landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis are subject only to initial notification requirements and to monitoring, recording, and reporting of fuel usage requirements. With the exception of existing spark ignition 4SRB stationary RICE, other types of existing stationary RICE (*i.e.*, spark ignition 2 stroke lean burn (2SLB), spark ignition 4 stroke lean burn (4SLB), compression ignition (CI), stationary RICE that combust landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, emergency, and limited use units) located at a major source of HAP emissions are not subject to any specific requirement under the final rule. You must determine your source's subcategory to determine which requirements apply to your source.

The final rule does not apply to stationary RICE located at an area source of HAP emissions. An area source of HAP emissions is a contiguous site under common control that is not a major source.

Finally, the final rule does not apply to stationary RICE test cells/stands since these facilities are covered by another NESHAP, subpart PPPPP of 40 CFR part 63.

B. What Source Categories and Subcategories Are Affected by the Final Rule?

The final rule covers stationary RICE. A stationary RICE is any RICE which uses reciprocating motion to convert heat energy into mechanical work and is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

We divided the stationary RICE source category into five subcategories: (1) Stationary RICE with a site-rating of 500 brake HP or less, (2) emergency stationary RICE, (3) limited use stationary RICE, (4) stationary RICE that combust landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, and (5) other stationary RICE. We further divided the last subcategory into four subcategories: (1) 2SLB stationary RICE, (2) 4SLB stationary RICE, (3) 4SRB stationary RICE, and (4) CI stationary RICE.

The final rule does not apply to stationary RICE test cells/stands since these facilities are covered by another NESHAP, subpart PPPPP of 40 CFR part 63.

The final rule also does not apply to stationary RICE with a site-rating of 500

brake HP or less. In reviewing the population database to identify stationary RICE with a site-rating of 500 brake HP or less, we found extremely little information. In discussions with State and local permitting officials, the manufacturers, and some of the owners and operators of stationary RICE, we found that such small stationary RICE have generally not been regarded as significant sources of air pollutant emissions. As a result, the small stationary RICE have not been subjected to the same level of scrutiny, examination, or review as larger stationary RICE. Little information has been gathered or compiled by anyone for this subcategory of stationary RICE.

Thus, at this point, we know very little about stationary RICE with a site-rating of 500 brake HP or less. For example, we do not know how many of the small stationary RICE exist. In addition, we know little about the operating characteristics and emissions, the current use of, as well as the applicability of, emission control technologies, the costs of emission control for the small stationary RICE, or the economic impacts and benefits associated with regulation. In the absence of such information, we have concerns with the applicability of HAP emission control technology to these stationary RICE. As a result, we feel it is appropriate to defer a decision on regulation of stationary RICE with a site-rating of 500 brake HP or less until further information on the engines can be obtained and analyzed.

We feel this subcategory of stationary RICE is likely to be more similar to stationary RICE located at area sources than to stationary RICE located at major sources. Thus, we plan to include this subcategory of stationary RICE in our considerations to develop regulations for stationary RICE located at area sources.

C. What Are the Primary Sources of HAP Emissions and What Are the Emissions?

The primary sources of HAP emissions are exhaust gases from combustion of gaseous fuels and liquid fuels in stationary RICE. Formaldehyde, acrolein, methanol, and acetaldehyde are HAP that are present in significant quantities from stationary RICE.

D. What Are the Emission Limitations and Operating Limitations?

As the owner or operator of an affected source, you must do one of the following: (1) Each existing, new, or reconstructed 4SRB stationary RICE must comply with each emission limitation in Table 1a of subpart ZZZZ, 40 CFR part 63, and each operating limitation in Table 1b of subpart ZZZZ that apply; or (2) each new or reconstructed 2SLB stationary RICE, new or reconstructed 4SLB stationary RICE, or new or reconstructed CI stationary RICE must comply with each emission limitation in Table 2a of subpart ZZZZ and operating limitation in Table 2b of subpart ZZZZ that apply. These tables can be found after the definitions in § 63.6675 of subpart ZZZZ.

Existing 2SLB stationary RICE, existing 4SLB stationary RICE, existing CI stationary RICE, stationary RICE that operate exclusively as emergency or limited use units, or stationary RICE that combust landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis have an emission standard of no emission reduction, and will not be tested to meet any specific emission limitation or operating limitation. In addition, any stationary RICE located at an area source of HAP emissions, any stationary RICE with a site-rating of 500 brake HP or less, or stationary RICE that are being tested at stationary RICE test cells/stands are not addressed in the final rule and, therefore, do not need to comply with any emission limitation or operating limitation.

E. What Are the Initial Compliance Requirements?

If your stationary RICE must meet specific emission limitations and operating limitations, then you must meet the following initial compliance requirements. The testing and initial compliance requirements are different, depending on whether you demonstrate compliance with the carbon monoxide (CO) emission reduction requirement, formaldehyde emission reduction requirement, or the requirement to limit the formaldehyde concentration in the stationary RICE exhaust.

If you own or operate a 2SLB or 4SLB stationary RICE or a CI stationary RICE complying with the requirement to reduce CO emissions, you must conduct an initial performance test to demonstrate that you are achieving the required CO percent reduction, corrected to 15 percent oxygen, dry basis. The initial performance test must be conducted at high load conditions, defined as 100 percent ±10 percent.

If you own or operate a 2SLB or 4SLB stationary RICE or a CI stationary RICE complying with the requirement to reduce CO emissions and you are using an oxidation catalyst, you must also install a continuous parameter monitoring system (CPMS) to continuously monitor the catalyst inlet temperature. During the initial performance test, you must record the initial pressure drop across the catalyst and the catalyst inlet temperature.

If you own or operate a 2SLB or 4SLB stationary RICE or a CI stationary RICE complying with the requirement to reduce CO emissions and you are not using an oxidation catalyst, you must also petition the Administrator for approval of operating limitations or approval or no operating limitations. You must also install a CPMS to continuously monitor the operating parameters (if any) approved by the Administrator. During the initial performance test, you must record the initial values of the approved operating parameters (if any).

As an alternative, you may elect to install a continuous emissions monitoring system (CEMS) to measure CO and either carbon dioxide or oxygen simultaneously at the inlet and outlet of the oxidation catalyst. To demonstrate initial compliance, you must conduct an initial performance evaluation using Performance Specifications (PS) 3 and 4A of 40 CFR part 60, appendix B. The initial performance test must be conducted at high load conditions, defined as 100 percent ±10 percent. You must demonstrate that the reduction of CO emissions meets the required percent reduction using the first 4-hour average after a successful performance evaluation. Your measurements at the inlet and the outlet of the oxidation catalyst must be on a dry basis and corrected to 15 percent oxygen or equivalent carbon dioxide content.

If you own or operate 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions, you must conduct an initial performance test using Test Method 320 or 323 of 40 CFR part 63, appendix A, or ASTM D6348–03 to demonstrate that you are achieving the required formaldehyde percent reduction, corrected to 15 percent oxygen, dry basis. The initial performance test must be conducted at high load conditions, defined as 100 percent ±10 percent.

If you own or operate a 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions and you are using non-selective catalytic reduction (NSCR), you must also install a CPMS to continuously monitor the catalyst inlet temperature. During the initial performance test, you must record the initial values of the pressure drop across the catalyst and the catalyst inlet temperature.

If you own or operate a 4SRB stationary RICE complying with the requirement to reduce formaldehyde

emissions and you are not using NSCR, you must also petition the Administrator for approval of operating limitations or approval or no operating limitations. You must also install a CPMS to continuously monitor the operating parameters (if any) approved by the Administrator. During the initial performance test, you must record the initial values of the approved operating parameters (if any).

If you are complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust, you must conduct an initial performance test using Test Method 320 or 323 of 40 CFR part 63, appendix A, or ASTM D6348–03 to demonstrate that the concentration of formaldehyde in the stationary RICE exhaust is less than or equal to the emission limit, corrected to 15 percent oxygen, dry basis, that applies to you. To correct to 15 percent oxygen, dry basis, you must measure oxygen using Method 3A or 3B of 40 CFR part 60, appendix A, and measure moisture using Method 4 of 40 CFR part 60, appendix A; or Test Method 320 of 40 CFR part 63, appendix A; or ASTM D6348–03. The initial performance test must be conducted at high load conditions, defined as 100 percent ±10 percent.

If you own or operate a 2SLB or 4SLB stationary RICE or a CI stationary RICE complying with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are using an oxidation catalyst or if you own or operate a 4SRB stationary RICE complying with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are using NSCR, you must also install a CPMS to continuously monitor the catalyst inlet temperature. During the initial performance test, you must record the initial pressure drop across the catalyst and the catalyst inlet temperature.

If you choose to comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not an using oxidation catalyst or NSCR, you must also petition the Administrator for approval of operating limitations or approval of no operating limitations. If the Administrator approves your petition for operating limitations, the operating limitations must also be established during the initial performance test.

If you petition the Administrator for approval of operating limitations, your petition must include the following: (1) Identification of the specific parameters you propose to use as operating limitations; (2) a discussion of the relationship between the parameters and HAP emissions, identifying how HAP emissions change with changes in the parameters, and how limitations on the parameters will serve to limit HAP emissions; (3) a discussion of how you will establish the upper and/or lower values for the parameters which will establish the limits on the parameters in the operating limitations; (4) a discussion identifying the methods you will use to measure and the instruments you will use to monitor the parameters, as well as the relative accuracy and precision of the methods and instruments; and (5) a discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring the parameters.

If you petition the Administrator for approval of no operating limitations, your petition must include the following: (1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally (*e.g.*, operator adjustment, automatic controller adjustment, etc.) or unintentionally (*e.g.*, wear and tear, error, etc.) on a routine basis or over time; (2) a discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions; (3) for those parameters with a relationship to HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions; (4) for those parameters with a relationship to HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on these parameters in operating limitations; (5) for the parameters with a relationship to HAP emissions, a discussion identifying the methods you could use to measure the parameters and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments; (6) for the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and (7) a discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.

F. What Are the Continuous Compliance Provisions?

Several general continuous compliance requirements apply to all stationary RICE meeting various specified emission and operating limitations. If your stationary RICE is required to meet specific emission and operating limitations, then you are required to comply with the emission and operating limitations at all times, except during startup, shutdown, and malfunction of your stationary RICE. You must also operate and maintain your stationary RICE, air pollution control equipment, and monitoring equipment according to good air pollution control practices at all times, including startup, shutdown, and malfunction. You must conduct all monitoring at all times that the stationary RICE is operating, except during periods of malfunction of the monitoring equipment or necessary repairs or quality assurance or control activities, such as calibration checks.

For 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions, unless you are using a CEMS, you must conduct semiannual performance tests for CO and oxygen using a portable CO monitor to demonstrate that the required CO percent reduction is achieved. The performance tests must be conducted at high load conditions, defined as 100 percent ±10 percent. If you demonstrate compliance with the percent reduction requirement for two successive performance tests, you may reduce the frequency of performance testing to annually. However, if an annual performance test indicates a deviation from the percent reduction requirement, you must return to semiannual performance tests.

If you are using an oxidation catalyst, you must continuously monitor and record the catalyst inlet temperature to demonstrate continuous compliance with the CO percent reduction requirement. The 4-hour rolling average of the valid data must be within the operating limitation. You must also measure the pressure drop across the catalyst monthly. If you replace your oxidation catalyst, you must measure your pressure drop and catalyst inlet temperature.

If you are not using an oxidation catalyst, you must continuously monitor and record the operating parameters (if any) approved by the Administrator to demonstrate continuous compliance with the CO percent reduction requirement. The 4-hour rolling average of the valid data must be within the operating limitation.

If you elect to demonstrate continuous compliance using a CEMS, you must calibrate and operate your CEMS according to the requirements in 40 CFR 63.8. You must continuously monitor and record the CO concentration at the inlet and outlet of the oxidation catalyst and calculate the percent reduction of CO emissions hourly. The reduction of

CO must be at least the required percent reduction, based on a rolling 4-hour average, averaged every hour. You must also conduct an annual relative accuracy test audit (RATA) of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.

For existing, new, or reconstructed 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions using NSCR, you must demonstrate continuous compliance by continuously monitoring the catalyst inlet temperature. The 4-hour rolling average of the valid data must be within the operating limitation. You must also measure the pressure drop across the catalyst monthly. If you replace your NSCR, you must measure the values of the pressure drop across the catalyst and measure the catalyst inlet temperature.

For existing, new, or reconstructed 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions and not using NSCR, you must continuously monitor and record the operating parameters (if any) approved by the Administrator. The 4-hour rolling average of the valid data must be within the operating limitation.

The 4SRB stationary RICE with a site-rating greater than or equal to 5,000 brake HP must also conduct semiannual performance tests to demonstrate that the percent reduction for formaldehyde emissions is achieved. The performance tests must be conducted at high load conditions, defined as 100 percent ±10 percent. If you demonstrate compliance with the percent reduction requirement for two successive performance tests, you may reduce the frequency of performance testing to annually. However, if an annual performance test indicates a deviation from the percent reduction requirement, you must return to semiannual performance tests.

If you are complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust, the following requirements must be met.

Proper maintenance. At all times, the owner or operator shall maintain the monitoring equipment including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

Continued operation. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation at all times that the unit is operating. Data recorded during monitoring malfunctions, associated repairs, out-of-control periods, and required quality assurance or control activities shall not be used for purposes of calculating data averages. The owner or operator shall use all the data collected during all other periods in assessing compliance. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring equipment to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system is out of control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

After completion of the initial performance test, you must demonstrate that formaldehyde emissions remain at or below the formaldehyde concentration limit by performing semiannual performance tests. The performance tests must be conducted at high load conditions, defined as 100 percent ±10 percent. If you demonstrate compliance with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust for two successive performance tests, you may reduce the frequency of performance testing to annually. However, if an annual performance test indicates a deviation of formaldehyde emissions from the formaldehyde concentration limit, you must return to semiannual performance tests.

If you choose to comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are using an oxidation catalyst or NSCR, you must demonstrate continuous compliance by continuously monitoring the catalyst inlet temperature. The 4-hour rolling average of the valid data must be within the operating limitation. You must also measure the pressure drop across the catalyst monthly. If you replace your oxidation catalyst or NSCR, you must measure the values of the pressure drop across the catalyst and measure the catalyst inlet temperature.

If you choose to comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must demonstrate continuous compliance by continuously monitoring and recording the values of any parameters which have been approved by the Administrator as operating limitations.

G. What Are the Notification, Recordkeeping and Reporting Requirements?

If you own or operate a stationary RICE with a site-rating of more than 500 brake HP which is located at a major source of HAP emissions, you must submit all of the applicable notifications as listed in the NESHAP General Provisions (40 CFR part 63, subpart A), including an initial notification, notification of performance test or evaluation, and a notification of compliance for each stationary RICE which must comply with the specified emission and operating limitations. In addition, you must submit an initial notification for each existing 4SRB stationary RICE and each new stationary RICE which operates exclusively as an emergency unit, limited use unit, or a stationary RICE which combusts digester gas or landfill gas equivalent to 10 percent or more of the gross heat input on an annual basis.

You must record all of the data necessary to determine if you are in compliance with the emission limitations and operating limitations (if applicable) as required by the final rule. Your records must be in a form suitable and readily available for review. You must also keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Records must remain on-site for at least 2 years and then can be maintained off-site for the remaining 3 years.

You must submit a compliance report semiannually. This report should contain information including company name and address, a statement by a responsible official that the report is accurate, and a statement of compliance or documentation of any deviation from the requirements of the final rule during the reporting period.

III. Summary of Significant Changes Since Proposal

Most of the rationale used to develop the proposed rule remains the same for the final rule. Therefore, the rationale previously provided in the proposed rule is not repeated in the final rule and the Rationale for Selecting the Proposed Standards section of the proposed rule should be referred to. Changes that have been made to the final rule are discussed in this section with rationale following in the Summary of Responses to Major Comments section.

A. Emission Limitations

In the proposed NESHAP, new 2SLB stationary RICE were required to either reduce CO emissions by 60 percent or

more, or limit the concentration of formaldehyde to 17 parts per million by volume dry basis (ppmvd) or less at 15 percent oxygen. Existing and new 4SRB stationary RICE were required to either reduce formaldehyde emissions by 75 percent or more, or limit the concentration of formaldehyde to 350 parts per billion by volume dry basis (ppbvd) or less at 15 percent oxygen. The final rule requires new 2SLB stationary RICE to either reduce CO emissions by 58 percent or more, or limit the concentration of formaldehyde to 12 ppmvd or less at 15 percent oxygen. Existing and new 4SRB stationary RICE must either reduce formaldehyde emissions by 76 percent or more, or limit the concentration of formaldehyde to 350 ppbvd or less at 15 percent oxygen.

In the proposed rule, sources were required to meet one of two emission limitations, depending on the type of control device being used. In the final rule, we have allowed sources the flexibility to meet either emission limitation, regardless of the type of emission control.

B. Operating Limitations

We have made several revisions to the operating limitations that we proposed. The minimum value for the catalyst inlet temperature for new 2SLB, new 4SLB, and new CI stationary RICE complying with the requirement to reduce CO emissions and using an oxidation catalyst has decreased from 500°F to 450°F and the maximum value has increased from 1250°F to 1350°F. For 4SRB stationary RICE, we have removed the requirement to maintain the temperature rise across the catalyst. For stationary RICE complying with the requirement to limit the concentration of formaldehyde, we have removed the proposed requirement to maintain either an operating load or fuel flow rate equal to or greater than 95 percent of the value established during the initial performance test.

C. Testing and Monitoring

In the final rule, we did not include EPA SW–846 Method 0011 or California Air Resources Board (CARB) Method 430 as appropriate methods for measuring formaldehyde. We also specified that performance testing should be conducted at high load, defined as 100 ±10 percent. In the final rule, we have included ASTM D6348–03 as an acceptable method for formaldehyde and moisture.

The proposed rule required new 2SLB, new 4SLB, and new CI stationary RICE with a brake HP greater than or equal to 5,000 complying with the CO emission reduction requirement to install a CEMS to continuously monitor CO, whereas those with a brake HP less than 5,000 demonstrated compliance with continuous parametric monitoring and quarterly CO performance testing. The final rule requires that new 2SLB, new 4SLB, and new CI engines use continuous parametric monitoring and semiannual CO performance testing to demonstrate continuous compliance. Sources may still elect to use a CO CEMS, but it is not required.

In the final rule, we specified that the pressure drop across the catalyst must be measured monthly for sources complying with the requirement to reduce CO emissions and using an oxidation catalyst and for sources complying with the requirement to reduce formaldehyde emissions and using NSCR, instead of continuously monitored as specified in the proposed rule.

D. Other

The proposed rule specified that stationary RICE that combust landfill gas or digester gas as primary fuel did not have to meet the requirements of the rule, except for initial notification requirements. In the final rule, we redefined the subcategory as those engines with annual landfill gas or digester gas consumption of 10 percent or more of the gross heat input on an annual basis. We have specified that new and reconstructed stationary RICE with annual landfill gas or digester gas consumption of 10 percent or more have to submit an initial notification and must also meet monitoring, recording, and reporting requirements associated with fuel usage. Existing stationary RICE with annual landfill gas or digester gas consumption of 10 percent or more do not have to meet any requirements.

The definition of emergency and limited use stationary RICE has been separated in the final rule. Limited use stationary RICE means any stationary RICE that operates less than 100 hours per year.

The definition of emergency stationary RICE was written to indicate that loss of power that constitutes an emergency can include power supplied to portions of a facility, and that emergency operation is not limited to only times when the primary power source has been interrupted and is not limited to a specific number of hours. Routine testing and maintenance to ensure operational readiness has been included in the definition of emergency operation.

We included a provision in the final rule allowing new or rebuilt engines to operate for up to 200 hours prior to installing the catalyst; this will not be considered a violation.

In the final rule, we specified that an existing area source that increases its emissions or its potential to emit such that it becomes a major source must be in compliance within 3 years after becoming a major source. Potential to emit is defined in § 63.6675 of the final stationary RICE NESHAP. The proposed rule stipulated that an existing area source that became a major source must be in compliance immediately after becoming a major source.

IV. Summary of Responses to Major Comments

A more detailed summary of comments and our responses can be found in the Summary of Public Comments and Responses document, which is available from several sources (see **ADDRESSES** section).

A. Applicability

Comment: One commenter requested clarification on what is considered an existing RICE unit for purposes of compliance. According to the commenter, using a date as a determination whether an engine is existing is confusing. The commenter stated that an engine takes on its identity when first assembled into an engine or when modified to be a different kind of engine, regardless of where that engine is ultimately installed or whether it is a spare on the shelf awaiting installation. Another commenter asked that EPA clarify that an existing RICE unit is any engine that was assembled as a final unit before December 19, 2002, regardless of whether it was or has been installed in a stationary location.

One commenter stated that the criteria that makes a RICE unit affected by the proposed rule does not limit the rule's effects to only units that operate. The proposed factors that determine applicability are construction date, site-rating, and specific inherent designs of units. None of these criteria as applied in the proposal include a requirement that the engine be operational. It is not uncommon for an owner or operator to have idle engines. Some may be installed and not in use. Others may be stored for later use as replacements or spare engines. Importantly, idle units are distinct from emergency units because an idle unit is not in any use. The commenter expressed that an idle RICE unit should have no compliance obligations imposed by the final RICE rule.

Response: We disagree with the first set of comments and feel that the date an engine was constructed is the date it

was installed at the operator site and not when it was assembled as a final unit at the manufacturer. Thus, any engine constructed (*i.e.*, installed at the site of the operator) prior to December 19, 2002, is an existing engine for purposes of the final rule, while any engine constructed on or after that date is a new engine. For purposes of the final rule, the term "on-site fabrication" in the definition of construction in 40 CFR § 63.2 shall refer to the final installation at the site of the final operator. This definition of construction is in line with how EPA generally defines construction, *i.e.*, it is defined by when the unit is installed at the operator's location, rather than where it is first assembled.

We feel it is appropriate to define "on-site fabrication" as the final site of installation because even after a unit has been manufactured, several components necessary in order to be able to operate the unit must be considered and added. The owner or operator cannot go directly from purchasing the unit from the manufacturer to operation. The owner or operator must typically have a building to house the unit in, construct a pad for the unit, run utilities, install fuel supply tanks or run the natural gas line, have the catalyst vendor install the pollution control equipment, and finally test the unit on-site. For larger engines (e.g., 5,000 HP or greater), the installation process is even more pronounced. For these reasons, we find it appropriate that the date that final installation of the unit at the site of operation is commenced should be considered the construction date.

Engines manufactured prior to December 19, 2002, but where installation was not commenced until after that date, are considered new engines and must comply with the requirements for new engines. We expect that these units will be able to comply with the requirements especially since the control equipment is typically installed on the engine at the site of operation and does not come with the engine purchased from the manufacturer. Finally, no problems are expected to occur with retrofit controls because the control technology is relatively easy to retrofit, especially in units that are being installed initially at a site. If owners or operators anticipate problems, they can elect to purchase a new engine meeting the requirements if it is installed after that date.

With regard to the next comment, we disagree with the commenter's proposition that EPA needs to have a special provision to deal with engines that are installed but not in use. For new engines covered by the final rule, which will be the vast majority of the engines, the final rule does not apply until startup of the engine, which is when the engine begins operation. Therefore, new engines are not covered until they are operational, which already accomplishes the goal of the commenter. For existing engines, we feel that any engine that does not meet the definition of limited use engine, which includes any engine that operates less than 100 hours per year, should not be relieved of compliance obligations. We have written our definitions to distinguish emergency engines from limited use engines, which should reduce some confusion. An engine that does not operate at all is clearly a limited use engine, which by definition includes engines that operate 0 hours per year.

Comment: Several commenters expressed that EPA should include an alternative applicability criteria based on 1 tpy actual formaldehyde emissions.

Response: The basis for this comment is the Oil and Natural Gas Production and Natural Gas Transmission and Storage NESHAP (promulgated on June 17, 1999). In that rule, HAP emissions from process vents at glycol dehydration units that are located at major HAP sources and from process vents at certain area source glycol dehydration units are required to be controlled unless the actual flowrate of natural gas in the unit is less than 85,000 cubic meters per day (3.0 million standard cubic feet per day), on an annual average basis, or the benzene emissions from the unit are less than 0.9 megagrams per year (1 tpy). The 1 tpy emission threshold in the Oil and Natural Gas Production and Natural Gas Transmission and Storage MACT is equivalent to the smallest size glycol dehydration unit with control of HAP emissions and is, therefore, based on equivalence, not risk. The information in the docket does not support a decision to provide an alternative applicability cutoff in this case. Our decision to defer regulation of engines 500 HP or less was based on questions regarding how accurately the database reflected such engines. There were no such concerns raised based on whether an engine emitted formaldehyde above 1 tpy.

Comment: Five commenters stated that the applicability limit for 2SLB should be increased to 1100 HP to be consistent with the MACT floor. One commenter stated that the small engine size cutoff should be changed from 500 HP to 650 HP. The commenter said that while EPA appropriately reasoned that small engines should not be subject to the requirements of the rule, EPA provided no explicit rationale for the selection of 500 HP as the appropriate small engine size cutoff. Ranking all engines in EPA's database from smallest to largest, the first engine size that has controls is 650 HP. Thus, the appropriate small engine size cutoff supported by the record is less than 650 HP instead of less than or equal to 500 HP.

Response: First, we need to clarify that engines 500 brake HP or less have not been exempted from regulation. Because we determined at the time of proposal that we did not have enough information to go forward with regulation of those engines at this time, we have deferred regulatory activity with regard to those engines. Pursuant to a consent decree signed on May 22, 2003, *Sierra Club* v. *Whitman*, Case Number 1:01CV01537 (D.C.D.C.), a notice of proposed rulemaking regarding regulation of these engines under CAA section 112 is scheduled for October 31, 2006, with a final rule by December 20, 2007. At this time, it would be inappropriate to speculate on what level of control would be promulgated for these engines.

We are aware of stationary engines as small as 650 HP that are equipped with add-on HAP control devices. We feel our database represented the population of engines between 500 HP and 1100 HP reasonably well, so we do not feel it is appropriate to defer regulation of these engines to a later rule. Therefore, we do not feel it is appropriate to defer the regulation of engines up to 1100 HP for 2SLB engines, or to include such engines in a separate subcategory. Although 650 HP is the smallest size unit that is known to have add-on HAP control, we feel it is appropriate to limit the deferral to engines 500 HP or less because the control technology used for 650 HP units can be transferred to units at least as small as 500 HP in size. Oxidation catalyst technology is not limited to engines greater than 650 HP in size. In fact, information received during the public comment period supports our conclusion, where several engines rated at 400 HP were equipped with oxidation catalyst control. Our deferral of engine regulation was based on the type of engines used below 500 HP and whether our database was adequate for such engines. We feel our database for engines above 500 HP was adequate and that, in any case, the final rule for these engines is adequately justified in the record. The commenter does not adequately provide particular reasons to justify placing engines between 500 and 650 HP in a different subcategory from larger engines, and we

do not feel such subcategorization has been shown to be appropriate.

Comment: One commenter asserted that the rule should be more explicit as to whether the 500 HP capacity level for exception from the rule and 5,000 HP capacity level for enhanced monitoring applies to an individual engine or applies to the aggregate capacity of a group of engines.

Response: We intended for the 500 HP capacity level to apply to an individual engine, not the aggregate capacity of a group of engines. Similarly, the 5,000 HP capacity level for enhanced monitoring was intended to apply to an individual engine. However, we have not included a CO CEMS requirement in the final rule. Sources are free to use CO CEMS to demonstrate compliance; however, CO CEMS are not required.

Comment: One commenter contended that the MACT should consider exempting any RICE using landfill gas. A diesel engine can operate at a landfill in a dual fuel mode using fuel oil and landfill gas. Tests have shown that a catalytic converter cannot be used because of siloxanes in the landfill gas, even if the engine operates with more than half the energy being supplied by the liquid fuel.

Response: In the proposed rule, we established a subcategory for landfill or digester gas fired units and defined the subcategory as those stationary RICE that combust digester gas or landfill gas as the primary fuel. In the proposed rule, these units did not have to meet any emission limitation requirements but were subject to the initial notification requirements. We agree with the commenters supporting the proposed approach to landfill and digester gas fired engines. We agree that neither control technology, fuel switching, or other practices would be an appropriate or workable strategy for reducing HAP from these engines. We agree with the commenter that problems will occur when using landfill gas because of siloxanes in the fuel, even if the engine operates with more than half the energy being supplied by the liquid fuel. Therefore, we contacted sanitation districts and catalyst vendors for information. Based on the information obtained, we feel that firing greater than 10 percent landfill gas or digester gas will cause fouling of the oxidation catalyst, rendering the control device inoperable within a short period of time. All the sources we contacted indicated that there would be problems associated with catalyst deactivation due to siloxanes present in landfill gas and digester gas. Information regarding landfill and digester gas is presented in a memorandum included in the rule docket (Docket ID Nos. OAR–2002–0059 and A–95–35). While most units will operate using landfill or digester gas consumption above 50 percent of the time, there are times when such units may need to operate significantly below 50 percent landfill or digester gas consumption. We feel a cut-off level of 10 percent of gross heat input is an appropriate level for defining these units, because operation below that percentage raises significant questions regarding whether the unit is still appropriately considered to be operating as a landfill or digester gas burning unit, and would raise concerns regarding circumvention of the requirements for other new units. In the final rule, we have redefined the subcategory as those engines with annual landfill gas or digester gas consumption of 10 percent or more of the gross heat input on an annual basis. New and reconstructed engines in this subcategory must only comply with limited requirements of the final rule. Engines with an annual landfill gas or digester gas consumption of less than 10 percent of the gross heat input on an annual basis are subject to applicable emission limitations of the final rule in addition to other requirements.

Comment: Multiple commenters stated that a limited use category with a capacity utilization of 10 percent or less (876 or fewer hours of annual operation) should be included. One commenter suggested using a flat annual threshold level of 1,000 hours per year in lieu of 10 percent usage. Another commenter recommended that the category include all units, not only peak shaving units. Several commenters argued that the 50 hours per year may not be sufficient. Some commenters noted that testing and maintenance should be included and not counted towards the 50 hours per year. Two commenters recommended at least 250 hours per year. One commenter recommended a 52 hour limit for routine maintenance and testing, then have no limit for true emergency use. Similarly, other commenters expressed that since routine or unscheduled maintenance and testing could require unknown time to complete, there should be no time limits on the use of emergency stationary RICE. Several commenters suggested 100 hours per year for emergency generators. One commenter stated that the subcategory should be redefined to include RICE that operate less than 500 hours per year. Two commenters remarked that setting this exemption at 50 hours per year down from the 100 or 200 hours per year commonly seen in many State air pollution regulations, could have the net effect of increasing pollution by not allowing sufficient operating time for the engine to burn off hard deposits. Several commenters stated that the limited use definition for RICE should be separated from the emergency power definition since these are really different applications. Two commenters stated that the operation of emergency power units should not be limited to only those times when the primary power source has been interrupted, but rather not time-restricted at all, providing the primary design purpose of the unit is to provide emergency backup services, fire water, etc. One commenter asked that EPA clarify the definition of emergency/limited use engines as to whether loss power that constitutes an emergency is limited to power supplied to the facility as a whole or includes power supplied to portions of the facility. One commenter suggested that EPA revise the definition of emergency power RICE to clarify the intent of the rule as the current definition does not adequately encompass the wide array of emergency uses of engines. One commenter felt that the description of an emergency engine is too restrictive. The emergency use description should describe more power loss emergencies than those affecting an entire facility at once. The definition should also include uses for additional emergency types beyond power loss emergencies, *e.g.*, fuel and raw material curtailments or fuel shortage emergencies applied by governments, utilities, or other suppliers may require the need to temporarily operate an engine, or some equipment may be operated to fight fires (firewater pumps). Neither of these examples represent loss of power, but are still unplanned events.

One commenter stated that the definition should be clarified, or extended, to allow for operations in anticipation of an emergency situation. One commenter remarked that this class of RICE (engines having a capacity utilization of less than 10 percent) would operate mostly in the summer months when the public is more likely to be impacted by the emissions. Acetaldehyde, acrolein, and formaldehyde all have documented short-term acute health effects. The EPA has failed to identify short-term health effects throughout any of the risk analysis proposals. The commenter asserted that any subcategorization of these engines without controls is not protective of public health.

One commenter suggested eliminating from the definition the reference to "when the primary power source has been rendered inoperable." There are emergency conditions where the

primary power source is still operable, but the emergency condition necessitates the startup of engines (*e.g.*, firewater pumps during a unit fire, instrument air back-up engines). Another option would be to add the words "or is insufficient for an emergency situation" after the primary power source comment.

Response: The preamble to the proposed rule proposed a subcategory for limited use stationary RICE and defined them as operating 50 hours or less per year. Comments received indicated that the proposed 50 hours per year for limited use units was not sufficient and that many limited use engines would exceed the 50 hours per year just by routine testing and maintenance of the engine for readiness purposes. For this reason, we feel that few owners and operators would find this allowance useful and would not serve a purpose except to cover periods of testing and maintenance. We have, therefore, found it appropriate to increase the number of hours for limited use operation. We have specified in the final rule that limited use stationary RICE are stationary RICE that operate less than 100 hours per year. For limited use units, operation during routine testing and maintenance is counted towards the 100 hours per year.

In the preamble to the proposed rule, we solicited comments on creating a subcategory of limited use engines with capacity utilization of 10 percent or less (876 or fewer hours of annual operation). These units would have included engines used for electric power peak shaving. As a result of soliciting comments, we received several comments regarding the possibility of establishing a limited use subcategory with capacity utilization of 10 percent or less; some for and some against. We considered all comments received and have decided not to include a subcategory of limited use stationary RICE with a capacity utilization of 10 percent or less in the final rule. Limited use units operating 876 hours per year are similar to other sources equipped with add-on oxidation catalyst control and their operation only during peak periods does not preclude them from being equipped with add-on oxidation catalyst control. Those commenters supporting a longer time period for the limited use engines did not provide persuasive arguments for such a subcategory. The commenters have not provided significant data indicating that engines operating up to 10 percent of the time (or longer, as some commenters suggested) are unable to take steps similar to other RICE to reduce HAP. On the contrary, as stated previously, such engines are similar to other stationary RICE that can be and have been equipped with add-on oxidation catalyst control, and their operation only during peak periods does not preclude them from being equipped with workable add-on control or from using other methods of emission control to reduce HAP. The 10 percent time limit would allow over a month of usage per year, which we feel is substantial enough both to be of concern environmentally and to take advantage of emission control strategies. Significant operation of these engines is expected and should be accounted for in the final rule.

By contrast, a limited use exemption covering only 100 hours per year of use is justified because usage in these cases in clearly exceptional and these engines would have the technical and usage concerns similar to emergency engines discussed in the proposed rule. These engines are categorically different from other engines in that they are only used in truly exceptional situations. For these reasons, we have not established a limited use subcategory of units operating 876 hours per year in the final rule, but have included a limited use subcategory allowing engines to operate up to 100 hours per year.

We agree with the comment that the emergency and limited use stationary RICE definition should be separated. We have established separate definitions for emergency stationary RICE and limited use stationary RICE in the final rule.

In addition, in the final rule, the definition of emergency engine was written to indicate that loss of power that constitutes an emergency can include power supplied to portions of a facility. We intended that the definition of emergency engine include operation during emergency situations, including times when the primary power source has been interrupted as well as other situations such as pumping water in the case of fire or flood, which was given as an example of emergency operation in the definition in the proposed rule. The definition has been clarified to clearly indicate that emergency operation is not limited to only times when the primary power source has been interrupted. We contacted the commenter for more information about the types of curtailments with which they were concerned. The commenter provided only one example, which was shutdown of offshore wells during a hurricane. We feel that the definition of emergency stationary combustion engine is sufficient to cover this particular scenario and it is not necessary to include more examples of emergency operation. It would be nearly impossible to provide examples of every potential type of emergency situation. The operation of emergency engines is not limited to a specific number of hours. Also, routine testing and maintenance to ensure operational readiness have been included in the definition of emergency engine. However, the routine testing and maintenance must be within limits recommended by the engine manufacturer or other entity such as an insurance company. Emergency stationary RICE may also operate an additional 50 hours per year in non-emergency situations. As stated previously, routine testing and maintenance have been included in the definition of emergency stationary RICE and, therefore, are not counted towards the 50 hours per year. We do not agree that operation in anticipation of an emergency situation should be included in the definition of emergency engine and have not made this change.

Comment: One commenter requested a subcategory for new and reconstructed stationary CI RICE located in the State of Alaska that exempts the engines from the control requirements of this proposed rule. The commenter stated that EPA has overlooked the fact that low sulfur fuels (less than 500 ppm (0.05 weight percent)) are necessary for CO oxidation catalysts to operate properly and that these fuels are not available in several areas of the United States including the State of Alaska. Sulfur can quickly degrade oxidation catalyst performance for controlling CO (or formaldehyde) emissions by poisoning the precious metal substrate of the catalyst. In one study it was found that increasing the diesel sulfur content from 3 ppm to 350 ppm by weight resulted in a three-fold increase in catalyst-out PM emissions. In the same study, the performance of the diesel oxidation catalyst for controlling CO emissions from the higher sulfur fuel degraded by an average of 10 percent after the short-term (250-hour) aging tests. In Alaska meeting the proposed MACT floor (oxidation catalyst) for new CI RICE sources will be problematic because of the non-availability of low sulfur diesel fuels (300 to 500 ppm sulfur content by weight). The permitted diesel fuel sulfur content, by weight, for most permitted stationary CI sources is between 0.1 percent and 0.5 percent (1,000 ppm to 5,000 ppm by weight). The Trans Alaska Pipeline System facilities operated by the commenter have permitted sulfur fuel content limits between 0.24 percent to 0.5 percent. The lowest fuel sulfur diesel that is available in the State of Alaska is an arctic grade fuel that has a sulfur content of

approximately 0.1 percent. Petroleum refineries in the State are not required to produce lower sulfur fuels because Alaska is exempted (see 40 CFR part 69 of 69 FR 34126) from EPA's low sulfur highway diesel fuel standards.

Response: We feel it is unnecessary to establish a subcategory for new and reconstructed CI RICE located in the State of Alaska. Information received from the Alaska Department of Environmental Conservation (DEC) indicated that there is a refinery in Alaska that can produce low sulfur fuel (300 to 500 ppm sulfur content by weight). The refinery can make low sulfur diesel that meets arctic pour point specifications. The information from the Alaska DEC also indicated that low sulfur fuel is generally available where there are roads in Anchorage, but not generally available on other parts of the road system, such as Fairbanks. Some remote villages do have low sulfur fuel. We expect availability to grow further as EPA's final rule implementing new sulfur limits for highway fuel, including fuel in Alaska (68 FR 5002, January 18, 2001), is implemented beginning in 2006. The Alaska DEC said that Alaska has 200 small villages that are remote, and it may be difficult for these small villages to always have low sulfur fuel available. These villages tend to employ RICE to generate electricity and have between two to four stationary RICE in their power plants. These engines range from 6 to 4000 kilowatt (kW), with an average of 300 kW. The Alaska DEC said that these engines are below the threshold for major sources, and that is also confirmed by HAP emission calculations. Since these villages would not be major HAP sites they would not be affected by the final rule. The non-availability of low sulfur fuel at these remote villages would therefore not be an issue since these villages would not be subject to the rule since they are located at non-major HAP sites. Finally, we have received information from catalyst vendors indicating that there are sulfur tolerant catalysts that have been commercialized and are suitable for use with fuels having a sulfur content between 3,000 and 5,000 ppm sulfur by weight. Sources that may not be able to obtain low sulfur fuel could use such catalysts to comply with the requirements of the final rule. For these reasons, we do not feel it is necessary to establish a separate subcategory for stationary RICE located in Alaska.

B. Definitions

Comment: Several commenters stated that EPA should revise the definition of rich burn engine to eliminate engines that have been converted to operate as lean burn engines and to address older engines (*e.g.*, horizontal), where there is no recommended air/fuel ratio. One commenter recommended that EPA adopt the following definition into the final rule: "Rich burn engine means four-stroke spark ignited engine where the manufacturer's recommended air/fuel ratio divided by the stoichiometric air/fuel ratio at full conditions is ≤1.1. Engines originally manufactured as rich burn engines, but modified prior to August 16, 2004 with passive emission control technology for nitrogen oxides (NO_X) (such as pre-combustion chambers) shall be considered lean burn engines. Horizontal engines shall be considered lean burn engines. Also, older engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is ≤2 percent."

Response: We agree with the commenter that it is necessary to address engines that have been converted from 4SRB engines to 4SLB engines and to also address older engines such as horizontal engines. We have, therefore, adjusted the definition of rich burn engine and have written the rich burn definition in the final rule as follows: "Rich burn engine means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for NO_X (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent." In addition, to avoid conflict with the definition of lean burn engine, the lean burn engine definition has also been adjusted and reads as follows in the final rule: "Lean burn engine means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine."

Comment: One commenter asserted that the definition of a reconstructed source should be modified to exclude any cost incurred with the installation of a control device required by State and local emission standards. The addition of diesel particulate filters (DPF) could exceed the reconstruction cost threshold (50 percent of fixed capital cost to construct a comparable new source).

Response: Based on the information we have available on costs of DPF systems and costs of engines, we feel that the addition of DPF would not exceed the reconstruction threshold of 50 percent of the capital cost of a new engine. Information received from CARB indicates that the total cost of a DPF including equipment and installation is around $38/HP. Engine costs estimated by CARB are $93/HP for a new engine. Comparing the cost of a DPF system to the cost of a new engine shows that the addition of such a filter system would be less than 50 percent. Engine cost information available to us obtained from other sources indicate that engine costs are between $150-$270/HP. Using these engine costs, the addition of a DPF system would be an even lower percentage of the cost of a new engine. Engine costs are presented in a memorandum included in the rule docket (Docket ID Nos. OAR–2002–0059 and A–95–35). We have, therefore, concluded that based on both information received from CARB and information we already have, the addition of a DPF would be less than 50 percent of the cost of a new engine.

In any case, our policy regarding the inclusion of air pollution control equipment in determining reconstruction is that the costs associated with the purchase and installation of air pollution control equipment are included in the fixed capital cost to the extent that the equipment is required as part of the manufacturing or operating process. Therefore, it is our policy not to include the fixed capital cost of air pollution control equipment that is not part of the operating process. Since DPF is not required in order to operate an engine, the cost for purchase and installation of DPF would not be included in determining whether a source is reconstructed. The commenter does not explain why we should deviate from the General Provisions based on compliance with State or local regulations. A source that is spending more than 50 percent of the capital cost needed for a new engine to meet the requirements should be in a position to make appropriate changes in its source at that time to meet the standards promulgated today. Moreover, the source may be able to comply with both requirements at the same time and may be able to meet the requirements using integrated controls (if not the same controls) that would be best implemented at the same time.

Comment: Several commenters requested that EPA write the definitions of affected source, existing stationary

RICE, new stationary RICE, and reconstructed stationary RICE such that they represent the "collection" of each type of source at a site, consistent with General Provisions § 63.2.

Response: Although § 63.2 of the General Provisions provides that we will generally adopt a broad definition of affected source, which includes all emission units within each subcategory which are located within the same contiguous area, this section also provides that we may adopt a narrower definition of affected source in instances where we determine that the broader definition would "create significant administrative, practical, or implementation problems" and "the different definition would resolve those problems." This is such an instance. There are several subcategories of stationary RICE, and a site could have engines from multiple subcategories, each having different compliance requirements. Use of the broader definition of affected source specified by the General Provisions would require very complex aggregate compliance determinations. We feel such complicated compliance determinations to be impractical, and, therefore, have decided to adopt a definition which establishes each individual RICE as the affected source.

Comment: One commenter recommended that the preamble should clarify that the definition of major source in the RICE MACT does not alter the definition of a major source in subpart HH of 40 CFR part 63 (Oil and Natural Gas Production Facilities) and, therefore, does not affect subpart HH applicability.

Response: We recognize the commenter's concern regarding the definition of major source in the RICE NESHAP and its difference from the definition of major source in 40 CFR subpart HH. We have, therefore, clarified in the preamble to the final rule that the definition of major source in the RICE NESHAP does not alter the definition of major source in subpart HH (or any other subpart) and, therefore, does not affect subpart HH applicability.

Comment: One commenter recommended that the definitions from 40 CFR subpart HH and 40 CFR subpart HHH for glycol dehydration unit, storage vessel with the potential for flash emissions, and production well should be included.

Response: We agree with the commenter that the definitions should be included in the RICE NESHAP. The definitions from 40 CFR subpart HH and 40 CFR subpart HHH for glycol dehydration unit, storage vessel with the potential for flash emissions, and production well have been added to the final rule.

C. Dates

Comment: A few commenters remarked that EPA should provide 1 year for initial notification as in the glycol dehydration MACT.

Response: An initial notification is not a time consuming activity, and we do not feel that 1 year is necessary to submit an initial notification.

Comment: Multiple commenters expressed the view that immediate compliance for new and reconstructed engines is unreasonable. The commenters felt that 1 year compliance time frame is more reasonable.

Response: We feel that immediate compliance is appropriate for new or reconstructed engines and is consistent with the General Provisions of part 63. See also CAA section 112(i)(1). The requirements of CAA section 112 contemplate that sources will be aware of their requirements at the time of proposal and, excluding requirements that are made more stringent between proposal and promulgation, new or reconstructed sources should be prepared to meet such requirements immediately, at the time of the final rule. Sources are required to install the proper equipment and meet the applicable emission limitations on startup; however, we allow sources 180 days to demonstrate compliance. In addition, because two of our emission requirements have been made more stringent since proposal, sources subject to those requirements that commence operation in between proposal and the final rule may show compliance with the proposed requirements for the first 3 years of the program.

Comment: Several commenters stated that for area sources becoming major sources, the requirement to be in compliance at the time of the switch is unreasonable. Two commenters suggested allowing 1 year for the unit to come into compliance. One commenter suggested that all area sources that become major should be allowed 3 years to achieve compliance or change the definition of a new stationary RICE to "A stationary RICE is new if you commenced construction of the stationary RICE after December 19, 2002, and you meet the applicability criteria for the subpart at the time you commenced construction." Five commenters suggested 3 years.

Response: We agree with the commenters that it is appropriate to allow existing area sources that become major sources 3 years to comply with the final rule. This has been specified in the final rule in § 63.6595(b)(2). However, we do not agree with the commenters that immediate compliance is unreasonable for new and reconstructed RICE located at area sources that are constructed or reconstructed at the same time the area source becomes a major source. These sources are aware in advance of their change in status from area source to major source, and therefore, should have sufficient time to plan for immediate compliance with the final rule. This has been specified in the final rule in § 63.6595(b)(1). A period of 180 days is allowed to demonstrate compliance.

Comment: Some commenters requested that EPA provide 1 year to conduct the initial performance test, rather than 180 days provided by the General Provisions. One commenter indicated that seasonal operations, such as storage facilities or compressor stations used in peak demand only, may not be operational during the 180 days provided to conduct the performance test. All existing 4SRB engines must conduct formaldehyde testing as a part of the initial performance test. It may be difficult to secure appropriate testing firms within the 180 days provided, especially since many may depend on Fourier Transform Infrared (FTIR) testing.

Response: We feel the time we have allowed sources to conduct the initial performance test is appropriate. Existing sources that must meet the requirements of the final rule have 3 years and 180 days to conduct the initial performance test and to demonstrate compliance. Therefore, existing 4SRB engines that must meet the formaldehyde emission limitations have sufficient of time to secure an appropriate testing firm. In addition, the final rule does not only specify that FTIR can be used for formaldehyde testing, but that also Method 323 can be used. This means it may not be necessary to secure testing firms specializing in FTIR measurements, and should increase the number of available testing firms. New sources that must meet the requirements of the final rule are aware in advance that their source will be covered by the final rule. We feel that 180 days is sufficient time to secure appropriate testing firms and to conduct the initial performance test and feel that 1 year to conduct the initial performance test is not necessary. Regarding the comment concerning seasonal operations, new sources do not have to test until the unit is operating, so seasonal operation should not be a concern for new units. Also, for existing sources, we feel that seasonal operation should not be a problem since the unit has 3 years and

180 days to conduct the initial performance test, and surely the unit would be operational within that timeframe. Finally, the 180 day time period for new sources is consistent with the General Provisions of part 63.

D. Emission Limitations

Comment: One commenter asserted that the emission limitations are too stringent. The commenter stated that the proposed emission standards were based on information from only five engines and does not believe that the proposed percent reductions and emission standards reflect the actual performance possible from the wide array of engine designs and sizes in the marketplace. For example, the formaldehyde reduction standard for rich burn engines in the proposed rule is set at 75 percent. However, the data in the docket show that results from eight test runs on two rich burn engines varied from 73 to 80 percent. If the reduction efficiency on two test engines under highly-controlled conditions can vary by such a significant amount (and to a level that does not meet the proposed standard), then it is highly likely that rich burn engines of different size and using different NSCR technology also would not be able to meet the standard. The EPA must consider the significant variability in RICE and adjust all final emissions standards and reduction percentages accordingly. The commenter recommended that the formaldehyde emission limits be revised upward by 10 percent to allow for variability in the RICE and aftertreatment system populations.

Three commenters asserted that the MACT floor for existing 4SRB is not representative of the average emission limit achieved by the best performing 12 percent of existing sources.

One commenter stated that the emission standard for existing 4SRB engines should be reassessed to be consistent with the requirements of CAA section 112(d). The commenter remarked that the Agency used the incorrect approach to set the emission limit for existing 4SRB engines, which logically should be lower percent removal than for new 4SRB engines. It was the commenter's opinion that the Agency should revisit the analysis and establish an emission limit for 4SRB engines more consistent with the required floor-setting methodology.

Five commenters expressed that the same emission limitation for existing and new 4SRB is unrealistic. One commenter recommended considering 10 percent less restrictive emission reduction requirement for existing units. Another commenter indicated that practically speaking, retrofitting existing equipment rarely achieves the optimum design available in new equipment.

One commenter contended that 350 ppbvd is too low. The chosen limit was achieved by the best performing engine during Colorado State University (CSU) testing while for other types of engines the highest emissions from the performance range had been chosen as the emissions limit.

Response: We disagree with comments that the MACT floor level proposed for existing 4SRB engines is inconsistent with the statute or not representative of the average emission level achieved by the best performing 12 percent of existing sources. The commenters do not dispute the accuracy of the data used or the representativeness of the engines tested. The commenters instead believe the manner in which we used the data is not reflective of the average of the best performing 12 percent of existing sources. To clarify our approach in the proposal, we found the lowest percent reduction value for each of the two sources tested, which accounts for variability in results for each source. However, as we found that 27 percent of the engines in the subcategory use NSCR, we felt that it was appropriate to use only the higher of the two values to determine the MACT floor for existing engines. In essence, this treated the top performer as a surrogate for the top half of the population using NSCR or the top 13.5 percent of the population. This is more closely analogous to the level of the top 12 percent of sources than is a straight average of the two sources.

However, in reviewing our method in response to these comments, we feel that it would be more appropriate to include in the analysis the data from the lower performing of the two engines tested, thus using more than a single data point in determining the MACT floor for existing engines. Because the test calculation for the MACT floor for existing engines is supposed to be based on the average of the top performing 12 percent of sources, it would be better to rely on a formula that does not rely solely on the highest performer. Also, it would not be appropriate to use a straight average between the two sources, because that would not be a fair approximation of the average of the top 12 percent of sources. Instead, it would approximate the average of the best performing 27 percent of sources. Therefore, we feel a reasonable approach is to discount the lower performing source by 12/27, thus reducing the influence of that data point by the ratio of controlled sources (27 percent of the population) compared to the statutory level (12 percent). This leads to a weighted average where the data point for the lower performer will be worth 22 percent (50 percent) (12/27) and the level for the higher performer will be worth 78 percent.

To be consistent with the approach followed for other engine types, *i.e.*, establish emission limitations based on test results conducted at high loads, we found it appropriate to exclude runs conducted at low loads in determining the lower and higher performer. This leads to a final MACT floor of 76 percent control efficiency or 350 ppbvd.[1] Though the formaldehyde reduction number differs slightly from the proposed level, it is very close. The proposed level for the alternative formaldehyde concentration emission limitation remains the same even after following the revised approach. This should not be particularly surprising. Though the emission values of the two engines were not identical, they were very close and the final values for either engines generally round to the same value.

For new 4SRB engines, we proposed a formaldehyde reduction requirement of 75 percent and an alternative formaldehyde concentration emission limitation of 350 ppbvd. In reviewing the 4SRB emissions data we used to set the standard, we observed that the minimum percent efficiency achieved by the best performing engine was actually 76.2 percent formaldehyde reduction. Therefore, we acknowledge that the proposed formaldehyde reduction should have been set at 76 percent reduction for new 4SRB engines and not 75 percent formaldehyde reduction and have written this in the final rule.

The commenters also seem to argue that the MACT floor levels for existing engines must be less stringent than those for new engines. While the criteria for the MACT floor for new engines is in some cases more stringent than for existing engines, it is not impossible, or even illogical, for the result to be the same, or at least very close. In this case, the best performing 12 percent of engines use the same control technology, and the emission values, as well as the emission reduction values, appear to be very close for these

[1] The calculation of percentage reduction is as follows: (lowest tested percentage reduction of the lower performing engine) * (.222) + (lowest tested percentage reduction of the higher performing engine) * (.777) = (75.5) (.222) + (76.2) (.778) = 76.0. The calculation of parts per billion is as follows: (highest tested parts per billion of the lower performing engine) * (.222) + (highest tested parts per billion of the higher performing engine) * (.778) = (355) (.222) + (348) (.778) = 350.

engines. Therefore, it is not surprising that the levels for the MACT floor for new and existing engines should be close. Moreover, we were using a very small data set in setting the final emission limits, thus limiting the variation in the data used. This led to a proposed level that used the same calculations for determining the MACT floor for both existing and new engines. We have changed the manner of calculating the MACT floor for existing engines for the final rule, but the result is still very close to that for new engines. Again, this is because the results for both engines were very close.

Regarding the comment referring to the use of the average of the best five performing sources, this is only permitted when the category or subcategory has less than 30 sources. This is not the case with this subcategory. Given that we had usable data from only two sources, it is not clear that averaging the two sources would be appropriate to meet that requirement.

Regarding the comment that retrofitting existing equipment rarely achieved the optimum design available in new equipment, the commenters provide no data showing that emissions reductions from retrofitting existing engines would be reduced compared to those from new engines.

Regardless, the MACT floor for new engines is not based on the optimum possible design for a new engine, but on the best level of control achieved in practice by the best controlled similar source, whether retrofitted or not. Similarly, the MACT floor for existing engines is based on a specific formula. We based the MACT floor for new engines on the information available to us from existing engines. While individual existing sources may have some design constraints in installing the emission control technology, there is no evidence that the MACT floor is not achievable. The suggestion that is provided, a 10 percent discount for existing units, without a basis in the existing data, does not appear consistent with the requirements of CAA section 112(d).

Comment: One commenter indicated that there is considerable doubt about the ability of an oxidation catalyst to reduce the formaldehyde concentration over long periods of time. A technical paper presented at the 2002 Gas Machinery Conference found that the catalyst efficiency for the Waukesha GL engine for formaldehyde reduces from 100 percent to 67 percent in only 150 hours of operation.

Response: We accounted for catalyst aging in setting the standard. In fact, the oxidation catalysts used during EPA's testing at CSU were sufficiently aged prior to testing. The 2SLB engine catalyst was aged for 236 hours, the 4SLB engine catalyst was aged for 140 hours, and the CI engine catalyst was aged for 100 hours. Industry representatives were in agreement that the catalysts were adequately aged. The industry testing we used in setting the standard for 4SRB engines was based on testing of two 4SRB engines equipped with NSCR. The NSCR catalysts used were appropriately aged by more than 2 years prior to testing. Information regarding catalyst aging at CSU is presented in a memorandum included in the rule docket (OAR–2002–0059 and A–95–35).

Comment: One commenter said that the 14 ppmvd formaldehyde limit for new 4SLB engines is not achievable and should be increased. The commenter stated that EPA based its proposed limit on a small number of tests on a newly rebuilt engine over a test period of 8.8 hours. Only a single 4SLB was tested, and it may not be representative of engines of the same type from different manufacturers. The period of catalyst aging was very short compared to typical catalyst maintenance intervals, so results may not be representative of catalyst performance during normal catalyst maintenance intervals; and the tests were performed within only a single catalyst that may not be representative of catalysts from different manufacturers. Clearly, all 4SLB stationary RICE cannot meet the emissions limits set by EPA in the proposed rule, particularly over normal catalyst life intervals of 2 to 3 years. The EPA should incorporate other available test data in the final emission limits for 4SLB engines to accommodate the degradation in catalyst performance over the useful lifetime of the catalyst.

Response: The MACT floor for new sources cannot be less stringent that the emission control that is achieved in practice by the best controlled similar source. The alternative formaldehyde standard for 4SLB engines is based on the minimum level of control achieved by the best controlled source. This approach takes into account variability of the best performing engine. Furthermore, EPA and industry representatives were in agreement that the engines and catalysts tested at CSU were representative of engine and catalyst operation across the U.S. We discussed catalyst aging during the EPA testing at CSU in response to the previous comment. We feel the catalyst was sufficiently aged prior to testing at CSU. Industry representatives also agreed that the catalyst was adequately aged. For the reasons provided, we feel that the 14 ppmvd formaldehyde limit that was proposed for 4SLB is appropriate and achievable. We recognize that the alternative formaldehyde emission limitation is based on a limited amount of data. However, we feel that sources with a well designed oxidation catalyst that operate the equipment properly will be able to meet the formaldehyde concentration.

Comment: Several commenters expressed that 93 percent CO reduction is not achievable. During the public hearing a commenter stated that a specific CO limit is more reasonable. Two commenters suggested reducing the limit to require 60 percent CO reduction. One commenter recommended that the value be set between 70 and 80 percent comparable to 2SLB and CI engines. Another commenter stated that EPA has not demonstrated that the catalyst will perform at this level on a continuous basis considering fuel and lubrication poisoning. Finally, one commenter said that American Petroleum Institute/Gas Research Institute testing indicated a 53 to 63 percent performance. The commenter also said that the percent reduction likely will not be achievable with aged catalysts.

One commenter had several concerns with establishing the CO reduction limit based on the testing conducted at CSU. The concerns stated by the commenter include: Only a single engine for each type was tested and it may not be representative of engines of the same type from different manufacturers; the variables consisted only of parameters affecting HAP formation in the engine and not necessarily those affecting CO reduction across the catalyst; the engines were rebuilt prior to testing to represent new engines and may not represent engine condition between routine maintenance intervals; the period of catalyst aging was very short compared to typical catalyst maintenance intervals, hence results may not be representative of catalyst performance during normal catalyst maintenance intervals; and the tests were performed with only a single catalyst that may not be representative of catalysts from different manufacturers.

One commenter stated catalyst performance degrades over time due to gas species and concentrations, thermal cycling, chemical poisoning and/or physical blocking caused by sulfur, lubricants, silica, etc. that enter the exhaust from the fuel, crankcase and/or combustion air. Catalyst life is the dominant factor in the cost of the

control technology, since the cost of replacement catalyst modules is large relative to other operating and maintenance costs. Typically, oxidation catalysts undergo two stages of deactivation: A period of rapid deactivation as the catalyst adjusts to the thermal and gas conditions, typically over a period on the order of 100 hours; followed by a period of slow deactivation that occurs over thousands or tens of thousands of hours. The duration of the CSU tests was clearly insufficient to address long-term catalyst deactivation, and perhaps not even fully accounting for initial deactivation. For example, CO reduction efficiency during the 140 hours of catalyst aging during the 4SLB engine test at CSU was still declining at the end of that period, suggesting that further deactivation would likely occur over time.

Response: We disagree with the commenter that 93 percent reduction for CO is not achievable for 4SLB engines. The 93 percent CO reduction emission limitation is based on the minimum level of control achieved by the 4SLB engine tested at CSU. We chose the minimum efficiency achieved as this value takes into account variability in performance of the engine and engines operating across the U.S., therefore, we feel we have appropriately set the emission limitation for 4SLB engines.

As rationale for setting the limit at 60 percent, the commenter cited a recent field test of a 4SLB engine where the measured CO reduction efficiency was 53 to 60 percent. However, the commenter did not provide any indication of what reduction efficiency the catalyst was designed for, or whether the catalyst had been properly maintained and cleaned. The commenter also did not identify the operating conditions under which the test was conducted, for example if the test was conducted during high load operation. Moreover, given the results of the CSU testing, and the standard-setting requirements for new engines under CAA section 112(d), it is not clear that the results in that test would be relevant for standard-setting for new engines.

Regarding the concerns expressed by one commenter, EPA and industry representatives were in agreement that the engines and catalysts tested at CSU were representative of engine and catalyst operation across the U.S. As explained in the preamble to the proposed rule, the testing conducted at CSU to obtain HAP and CO emissions data was a joint EPA-industry effort. Prior to testing, EPA and industry developed a list of engine operating parameters that were known to vary throughout the U.S. for each type of engine. The engines and control devices were tested at typical engine conditions in which these operating parameters were varied. The variations in the emission reduction results for each engine type are due to the variability of the engine and control system and include a representation of the performance of the best controlled source for new engines. Equipment manufacturers, catalyst vendors, owners and operators, and EPA agreed that the tests conducted at CSU were representative of typical engine operating conditions in the field for varied engine and catalyst manufacturers. It is believed that the variations in the operating parameters affect both HAP formation and CO reduction across the catalyst. For additional information regarding the CSU testing, please refer to the rule docket (Docket ID Nos. OAR–2002–0059 and A–95–35).

We disagree that the catalyst will not perform at this level on a continuous basis or when it is aged. The CSU testing was funded by several different agencies, and several stakeholders participated in the planning, preparation and execution of the tests. All stakeholders agreed that the catalyst was properly aged before testing was initiated on each engine. We discussed catalyst aging during the testing at CSU in response to a previous comment. We feel the catalyst was sufficiently aged prior to testing at CSU. It should be noted, as discussed below, that sources may meet the formaldehyde concentration standard to meet the requirements as well as the 93 percent CO reduction requirement.

In response to the comment regarding long-term catalyst deactivation, we reemphasize that industry representatives that were involved in the testing at CSU agreed that the testing would be representative for catalyst performance, both short-term and long-term. We agree with the commenter that there may be two stages of deactivation. The first stage of deactivation may occur during the first 100 hours, or might occur as early as after 20 hours of operation. A second stage of deactivation may occur over a period of more than a 1,000 hours of operation. However, information received from catalyst vendors indicate that they are able to design the catalyst to achieve the guaranteed percent reduction at the end of the catalyst life (warranty period). The percent reduction may decline slightly in the beginning but the catalyst can be designed to stabilize at the desired percent reduction. Catalysts that can achieve emissions reductions of 93 percent or more for the life of the catalyst are within the technological limits of this technology. For these reasons, we feel the CO percent reduction requirement of the final rule is appropriate and justified.

Comment: Multiple commenters asked that EPA allow sources to choose either percent reduction or final concentration to comply with irrespective of the control technique employed.

Response: We agree with the commenters, and we feel it is appropriate to allow sources to choose either the percent reduction or formaldehyde concentration outlet limit to demonstrate compliance irrespective of the control technique employed. We have specified this flexibility in the final rule.

Comment: Two commenters argued that the proposed rule does not recognize DPF as a significantly more effective control device for reducing diesel exhaust emissions compared to diesel oxidation catalysts. One commenter asked that the final rule require the use of particulate traps on diesel engines. Another commenter expressed concern with the interaction of control equipment with diesel particulate traps. One commenter indicated that DPF can reduce diesel PM by at least 80 percent. According to the commenter, these traps can reduce CO by at least 90 percent.

Response: The commenters indicate that DPF are effective at reducing diesel exhaust emissions or diesel particulates. These are not HAP listed pursuant to section 112(b) of the CAA and, therefore, are not the pollutants that the final rule is targeting specifically. The EPA has recently received a request to list diesel exhaust pursuant to section 112(b) of the CAA and is currently reviewing that request. At the time of proposal, we investigated DPF. However, at the time of this investigation, the effectiveness of DPF on listed HAP emissions from stationary sources had not been demonstrated, and the technology had only been applied to a handful of stationary RICE. They, therefore, were not appropriate as a MACT floor technology. We examined DPF for their ability to reduce listed HAP and their cost effectiveness. We concluded that there were no data to show that this technology would be more effective at reducing listed HAP than oxidation catalysts. We also noted that this technology was more expensive than oxidation catalysts, so we did not use this technology as a basis for the proposed MACT levels. However, the proposal did allow the use of

technologies other than oxidation catalysts, including DPF, to meet the MACT requirements, which are generally numerical, though there were certain compliance options that differed depending on the emission control used on the engine. Since proposal, we have received new information regarding DPF resulting in reevaluating the feasibility of applying DPF to stationary RICE. (See Docket ID Nos. OAR–2002–0059 and A–95–35.) In addition, the final rule eliminates all provisions linking the standard to any particular control technology. Sources are free to choose any compliance option irrespective of the control technique applied. We have no reason to believe that DPF are incompatible with oxidation catalysts or that they cannot be used instead of oxidation catalysts. In the context of its mobile source regulations, we have found that DPF can be incorporated with other emission control devices without compatibility problems. We agree with the commenter that DPF may be able to reduce PM by at least 80 percent and they might be able to also reduce CO by at least 90 percent, at least in certain instances, though EPA has determined that these reductions can only be reliably achieved using ultra low sulfur fuel (15 ppm sulfur content by weight). However, we do not have any actual test data showing that DPF can reliably reduce HAP emissions from stationary CI engines at a level beyond that already required by the final rule. In particular, we do not have data regarding actual use of these devices on stationary RICE, or under the range of operating parameters reasonably expected for such engines. Also, the ultra low sulfur fuel (15 ppm sulfur content by weight) needed for this technology is not yet available in sufficient quantities in the U.S. We, therefore, have determined that there is currently not enough information regarding DPF as applied to HAP emissions from stationary CI engines on which to base the standard for the final rule.

Comment: One commenter urged EPA to rationalize its policy and address the serious public health impacts associated with diesel-powered RICE by establishing rigorous PM and clean fuel requirements in the final rule.

Response: We appreciate the comments regarding pollution from diesel-powered stationary RICE. While we agree that diesel engines emit pollutants of concern beyond those covered in the final rule, we do not feel it would be appropriate to establish diesel PM or clean fuel requirements in the rule. The final rule is a relatively narrow rule, regulating only listed HAP from stationary RICE. Diesel PM is not currently listed as a HAP under section 112 of the CAA. While regulation of diesel PM may be appropriate in the long-term, either as a criteria pollutant or as a listed HAP, we do not feel that the final rule, which proposed only to regulate HAP already listed under CAA section 112, is the appropriate place to promulgate final rules affecting criteria pollutants and precursors (like PM or NO_X). Similarly, the commenter does not provide an explanation of the need to regulate diesel fuel, except as it affects PM emissions. Therefore, we are not taking any final action with regard to these issues in the final rule.

Comment: Several commenters sought adjustment of the MACT emission limitations to reflect fully the test results that are the basis for the standard. One commenter indicated that the CO percent reduction standard for 2SLB engines should be adjusted to 58 percent to reflect the lowest percent reduction achieved during the EPA-sponsored emission testing at the CSU Engine Lab, which is the basis for the 2SLB standards. The formaldehyde percent reduction standard for 4SRB engines should be adjusted to 73 percent to reflect the lowest percent reduction achieved during the industry-sponsored testing, which is the basis for the 4SRB emission standards. Similarly, the formaldehyde concentration standard for 4SRB engines should be adjusted to 370 ppbvd at 15 percent oxygen to reflect the highest post-NSCR concentration of formaldehyde.

Response: We agree with the commenter that the CO percent reduction standard for 2SLB should be adjusted to 58 percent to fully reflect the possible variation for the best performing source for these engines. We have made this adjustment in the final rule to fully reflect the test results obtained for the 2SLB engine tested at CSU. We proposed an alternative formaldehyde emission limitation of 17 ppmvd for new 2SLB engines in the proposal. The concentration for the formaldehyde emission limitation was based on the minimum level of control achieved by the best controlled source. This approach takes into account the variability of the best performing engine. The formaldehyde emissions at CSU ranged from 7.5 ppmvd to 17 ppmvd. Therefore, we chose 17 ppmvd at proposal. The 17 ppmvd formaldehyde concentration was based on a run conducted at low load (69 percent). After reviewing our approach at proposal, we have found it inconsistent to establish the alternative formaldehyde emission limitation based on the level achieved during a low load test. The approach that we have used for other engine types in establishing the alternative emission limitations was to establish the limits based on high loads and to require compliance at high loads. The expected trend is for emissions to generally increase with decreasing load; however, we do not have sufficient data to take the effect of load into account in establishing the alternative emission limitations. Because of this, the emission limitations are based on performance at high loads. We expect that if the emission limitations are achieved at high load then the technology will be operating appropriately and will also operate appropriately at lower loads. To be consistent, we have established in the final rule an alternative formaldehyde emission limit for new 2SLB engines of 12 ppmvd. This number is based on the minimum level of control achieved by the best performing engine at high load conditions. We have specified in the final rule that performance tests must be conducted at high load conditions, defined as 100 percent ±10 percent. If a source has demonstrated compliance with the emission limit at high loads it is assumed that the technology is operating appropriately and will also operate appropriately at lower loads. Sources are not required to meet the emission limitation at low load.

As described in the preamble to the proposed rule, we reviewed emissions data from an industry sponsored formaldehyde emission test conducted on two 4SRB engines. We selected the best performing engine based on the highest average formaldehyde percent reduction. The average reduction was 79 percent for that engine; however, to establish variability we looked at each of the 12 individual test runs performance on that engine. The percent reduction varied from 75 percent to 81 percent. At proposal, we selected 75 percent for the MACT floor. However, since proposal, we have reviewed the method we used to set the MACT floor for existing 4SRB engines. We feel it would be more appropriate to include in the analysis the data from the lower performing engine, thus using more than a single data point in determining the MACT floor for existing 4SRB engines. The revised approach was discussed in detail in response to a previous comment. In that response, we described our revised approach which takes into account the performance of both engines tested, using a weighted average where the data point for the lower performer will be worth 22 percent and the level for the higher performer will be worth 78 percent. In

addition, to be consistent with the approach followed for other engine types, we have excluded runs conducted at low loads in setting the MACT floor. As previously indicated elsewhere in this document, since the MACT floor is based on emissions data from runs at high loads, performance tests must be conducted at high load conditions, defined as 100 percent load, ±10 percent. The commenter stated that the formaldehyde percent reduction standard for existing 4SRB engines should be adjusted to 73 percent to reflect the lowest percent reduction achieved during the industry-sponsored testing. Although the commenter is correct in stating that 73 percent formaldehyde reduction was the lowest average reduction, 73 percent reduction was achieved during a run that was not conducted at high load. For this reason, it is not appropriate to use the 73 percent formaldehyde reduction in the MACT floor analysis. Similarly, the run where the formaldehyde concentration was measured at 370 ppbvd was also not conducted at high load, and was, therefore, not used in our analysis of the MACT floor for existing 4SRB engines.

Comment: One commenter requested that the "burn-in" period during commissioning of new or rebuilt engines should be exempted from emission limits. Catalyst manufacturer warrantees typically require a "burn-in period" for new and rebuilt engines prior to placing the catalyst on stream. This is intended to allow seating of critical engine components (*e.g.*, piston rings). Catalyst placed on stream before this burn-in period is subject to physical damage from engine backfire and poisoning and or fouling from crankcase oil blow-by. The EPA has acknowledged this need in a prevention of significant deterioration and title V Permit by including the following language: "The permittee shall be allowed to operate the replacement/overhauled engine without the use of the catalytic converter assembly for a period not to exceed 200 hours from the engine startup, unless a longer time period has been approved by EPA, in writing." The commenter recommended that deviating from the emissions limits during the burn-in period or the first 200 hours of operation of a new or rebuilt RICE not be considered a violation. The commenter recommended that a statement be added at § 63.6640(d) that deviating from the emissions limits during the burn-in period or the first 200 hours of operation of a new or rebuilt RICE is not a violation.

Response: We agree with the commenter that an engine burn-in period of 200 hours is appropriate prior to installing the catalyst to prevent damage to the catalyst. We have, therefore, specified that new or rebuilt engines may operate for up to 200 hours prior to installing the catalyst in the final rule and that this will not be considered a violation. However, sources have 180 days after the compliance date specified for their source to conduct the performance test and initial compliance demonstration and the 200 hours of burn-in time must be conducted within these 180 days.

Comment: One commenter did not agree with EPA's determination of the MACT floor for 4SLB RICE. The database used to determine the MACT floor is based on pre-1999 information and includes 542 engines from Wyoming. Since 1999, Wyoming has permitted 2,100 4SLB engines. Approximately 62 percent of the greater than 500 HP 4SLB permitted since 1999 have been required to be equipped with oxidation catalyst to control formaldehyde. The EPA reports the number of existing 4SLB used in determining the MACT floor at 4,149. Including the 4SLB engines greater than 500 HP permitted since 1999 in Wyoming, the total is 5,664. Of this total, 935 engines have permit conditions requiring oxidation catalyst to control formaldehyde, which is 16.5 percent of the total. Section 112(d) of the CAA requires the emission standard for existing sources be no less stringent than the emission limitation achieved by the best performing 12 percent of existing sources. The commenter contended that the database used to determine the MACT floor is incomplete, and EPA must reevaluate the MACT floor including permitting actions post 1998.

Response: We contacted the commenter who submitted this comment. The commenter stated that mostly all of the engines that have been permitted are minor sources of HAP. Since the 4SLB engines permitted in Wyoming are nearly all at minor sources of HAP, it is not accurate to add these sources to the determination of the average of the best performing 12 percent of existing sources from the source category. The determination of the average of the best performing 12 percent of existing sources must be based on the sources regulated. Since the final rule only covers major sources, it is not appropriate to include the minor source engines permitted to require oxidation catalyst in Wyoming. Moreover, the calculation of the MACT floor does not require that we include reductions that were implemented within 18 months of the proposal, or 30 months of the final rule. It is not clear how many of the engines the commenter discusses were equipped with oxidation catalysts during that period. Therefore, we have not reevaluated the floor for existing 4SLB engines. The MACT floor of existing 4SLB engines remains at no emissions reductions.

E. Monitoring, Recordkeeping, and Reporting

Comment: Multiple commenters contended that the CO CEMS requirement for large lean burn engines is unreasonable. The commenters stated that parameter monitoring and periodic testing should be offered to CO monitoring on all lean burn engines. One commenter noted that given that the best available emissions control technology for RICE is a passive catalyst system and that the operator cannot reduce or improve HAP removal efficiency, simplified and less costly environmental monitoring requirements should be adopted.

Response: We now feel that the proposed requirement for 2SLB, 4SLB, and CI engines 5,000 HP or above complying with the requirement to reduce CO emissions using an oxidation catalyst to use CO CEMS is unnecessary and inappropriate. The costs associated with a CO CEMS is estimated to be over $200,000 in capital costs and nearly $60,000 in annual costs. We consider these costs to be excessive. For these reasons, we feel it is not appropriate to include a requirement for large lean burn and large CI engines to install CO CEMS in the final rule. We feel that the combination of periodic stack testing and parameter monitoring is a proper and reasonable alternative for large engines. The testing of CO will ensure, on an ongoing basis, that the source is meeting the CO percent reduction requirement. In addition to stack testing, 2SLB, 4SLB, and CI engines meeting the CO percent reduction requirement and using an oxidation catalyst must continuously monitor and maintain the catalyst inlet temperature as well as maintain and monitor the pressure drop across the catalyst monthly. These parameters serves as surrogates of the oxidation catalyst performance and by monitoring and maintaining these parameters, continuous compliance between stack testing will be ensured. Stationary RICE meeting the CO percent reduction requirement that are not using an oxidation catalyst must petition the Administrator for approval of operating limitations and must continuously monitor and maintain the operating parameters that are approved (if any).

We are including CO CEMS as an option to periodic stack testing and parametric monitoring for all lean burn

and CI engines in the final rule, but it is not required.

Comment: One commenter observed that deficiencies noted in the proposed rule with regard to the test methods and performance protocols render CO CEMS infeasible for the RICE MACT. While CO CEMS have been demonstrated on some facility types, their application to RICE is very limited. Vendor claims for CO CEMS and CO instrumental analyzers, unless accompanied by emissions test data obtained under known and controlled conditions applicable to the subject source type, should not be considered adequate proof of availability and performance. While it may be appropriate for EPA to solicit comments on its test methods and technical monitoring requirements, the commenter found that it is inappropriate to propose requirements for measurement systems prior to resolving the current deficiencies with the EPA protocols.

Response: We disagree with the commenter that the application of CO CEMS must be considered infeasible for all RICE unless accompanied by emission test data obtained under known and controlled conditions applicable to the subject source category. Since we have previously established acceptable CEMS performance specifications, we can allow the RICE source owner and operator the optional use of CO CEMS within such performance standards as an effective parameter monitor. However, as discussed above, we do agree that we should not require the installation of CEMS at all affected facilities.

Comment: Many commenters asserted that the fuel flow and HP limits should be removed. Five commenters recommended that EPA specify that the emission standards only apply within a 60 to 100 percent load range and performance testing should be conducted within that load range. One commenter suggested revising MACT requirements to have emission limits and performance testing applicable at higher load conditions instead of establishing the lowest load to be operated in the future. Another commenter recommended that the final standards only apply down to the lowest load for which EPA has data and should specify that the performance test be conducted in that load range. One commenter stated that should EPA pursue minimum load testing and compliance in the final rule, the owner and operators should be allowed to retest the unit at some time later than the initial performance test to enlarge the operating range. The lower operating load and fuel range should then be based on the lowest load that has demonstrated compliance irrespective of whether the demonstration occurred in the initial or later performance tests.

One commenter stated that the NESHAP provide two options. One is to use a catalyst and the other is to limit the formaldehyde. If the formaldehyde limit is chosen, however, the engine must maintain an operating load of 95 percent or more of the load established in the initial testing, which under many circumstances is impractical. For example, this option cannot be chosen for the commonly used variable-load application engine. For variable load engines, there is no choice but to use a catalyst. The commenter believed that this approach limits the flexibility in controlling these engines.

Response: In the proposed rule, we required sources complying with the alternative formaldehyde limit to maintain an operating load equal to or greater than 95 percent of the operating load established during the initial performance test or maintain a fuel flow rate equal to or greater than 95 percent of the fuel flow rate established during the initial performance test. These sources were also required to comply with any additional operating limitations approved by the Administrator. Based on information received during the public comment period, we have reached the conclusion that maintaining the load or fuel flow rate within 95 percent of that established during the initial performance test may be impractical for many applications, especially those in load following applications. Therefore, we have not included the requirement to maintain load or fuel flow rate in the final rule. Sources complying with the alternative formaldehyde limit that use an oxidation catalyst or NSCR must continuously maintain and monitor the catalyst inlet temperature and measure the pressure drop across the catalyst monthly. Sources complying with the alternative formaldehyde limit that do not use an oxidation catalyst or NSCR must petition the Administrator for operating limitations to be continuously monitored. In the petition for approval of operating limitations, we recommend that sources consider establishing load or fuel flow rate as possible operating parameters to continuously monitor. Finally, we have based the emission standard on test results from high load tests only. Typically, as load decreases, the concentration of HAP increases. Comments received support this trend. Therefore, we have specified in the final rule that performance tests must be conducted at high load conditions, defined as 100 percent ±10 percent.

Comment: Several commenters contended that the temperature ranges at the catalyst inlet should be revised. Six commenters supported an operating range of 450°F to 1350°F for lean burn engines and the ability to develop customized catalyst inlet temperature ranges based on specific engine operating parameters. One commenter recommended using 450°F minimum catalyst inlet temperature for 2SLB. One commenter also said that owners and operators should be allowed to identify more appropriate temperature ranges based on performance testing, control device design specifications, manufacturer recommendations, or other applicable information (such as a performance test on a similar unit).

Response: We proposed that lean burn and CI engines complying with the requirement to reduce CO emissions maintain the temperature of the stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 500°F and less than or equal to 1250°F. We required the catalyst inlet temperature to be maintained to ensure proper operation of the oxidation catalyst. We stated in the preamble to the proposed rule that, in general, the oxidation catalyst performance will decrease as the catalyst inlet temperature decreases. Also, if the catalyst inlet temperature is too high, oxidation catalyst performance could be affected. Finally, the oxidation catalyst inlet temperature cannot be too low, or the reduction of HAP emissions may be compromised. For these reasons, we proposed that sources complying with the CO reduction requirement using an oxidation catalyst maintain the catalyst inlet temperature within 500°F and 1250°F. Several comments received during the public comment period indicated that the temperature range we proposed for catalyst inlet temperature should be expanded. Commenters suggested that the lower end of the temperature range should start at 450°F. The level of the standard for 2SLB engines is 58 percent CO reduction. Similar CO reduction was seen at CSU for 2SLB engines where the exhaust temperature was 450°F. For this reason, we agree with the commenters that the catalyst inlet lower temperature should be set at 450°F. Furthermore, we feel that the oxidation catalyst will perform adequately at a temperature of 1350°F. This was discussed in a memorandum included in the rule docket (Docket ID Nos. OAR–2002–0059 and A–95–35). Commenters also stated that Waukesha Pearce Industries, Inc. includes 1350°F in their limited warranty statements for

oxidation catalysts. Therefore, we have written the temperature range requirement for catalyst inlet temperatures to be between 450°F and 1350°F in the final rule. Regarding the comment that owners and operators should be allowed to identify more appropriate temperature ranges, we feel that requiring a catalyst inlet temperature range of 450°F to 1350°F is appropriate. Based on information from the testing at CSU, information from catalyst vendors, and information provided in comment letters submitted to the docket, we feel we have adequate information that supports requiring a catalyst inlet temperature range of 450°F to 1350°F, and we do not feel it is necessary to allow owners and operators the ability to identify and define other temperature ranges. Owners and operators have the option to petition the Administrator for other operating parameters following the procedures in section 63.8 for alternative monitoring procedures.

Comment: Many commenters stated that the requirement to measure pressure drop should be removed. One commenter indicated that the operating limitation not to exceed a pressure change of 2 inches of water column from the initial performance test has the potential to be problematic in practice. Another commenter stated that there is no need for continuous pressure drop measurements on engines running exclusively on natural gas and at high loads. The commenter has seen very little problems with catalyst fouling on their lean burn RICE equipped with oxidation catalysts. The commenter understood that it is an issue in some installations, but concludes that they would be applications either running on other fuels or where engines are run at idle or very low load for long periods of time. One commenter stated that the proposed requirements to continuously monitor and maintain a prescribed pressure differential across the catalyst should be removed from the final rule for the following reasons: (1) Although significant change in differential pressure across the catalyst may provide an indication that the catalyst has become fouled, EPA has presented no evidence to suggest that an increase in 2 inches of water column means that catalyst performance is impacted; (2) industry data demonstrates that the pressure drop can increase more than 2 inches of water column without impacting catalyst performance. Such increases may even occur because of engine operating conditions. For that reason, EPA's proposed 2 inches of water column condition might forbid engines to operate within part of their normal operating range; and (3) vendors do not treat pressure differential as a continuous operating parameter requirement. Rather it is presented as a maintenance requirement for catalysts on some engines. The general duty clause of § 63.6(e)(1)(i) is sufficient to address pressure drop issues. Finally, one commenter stated that the uniqueness of the installation should be given consideration in whether or not pressure drop is required to be monitored.

Response: We proposed a requirement for 4SRB engines complying with the requirement to reduce formaldehyde emissions using NSCR and 2SLB, 4SLB, and CI engines less than 5,000 HP complying with the requirement to reduce CO emissions using an oxidation catalyst to maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst measured during the initial performance test. Catalyst vendors have indicated to EPA that the pressure drop across the catalyst may be a good parameter to indicate catalyst performance and that an increase in pressure drop is an indication of poor catalyst performance. The pressure drop across the catalyst can indicate if the catalyst is damaged or fouled. If the catalyst is damaged or becomes fouled, the catalyst performance would decrease. For the reasons provided, we feel it is appropriate to use the pressure drop as it serves as a surrogate of the catalyst performance.

We determined at proposal that if the pressure drop across the catalyst deviates by more than 2 inches of water from the pressure drop across the catalyst measured during the initial performance test, the catalyst might be damaged or fouled. This was based on information received from catalyst vendors which indicated that if the pressure drop changes by more than 2 inches of water column, the catalyst should be inspected for damage or fouling. For this reason, we feel it was appropriate to specify that the pressure drop across the catalyst should not change by more than 2 inches from the pressure drop measured during the initial performance test. Anything higher than 2 inches might indicate damage or fouling of the catalyst. We feel it is appropriate to maintain the pressure drop requirement as proposed. However, we have reevaluated our position regarding requiring sources to monitor the pressure drop across the oxidation catalyst on a continuous basis and are no longer requiring sources to install a CPMS to monitor this parameter continuously. The pressure drop across the catalyst is not likely to change within short periods of time, but is a parameter the owner and operator might see changing over a longer period of time, not within hours or days. This is consistent with comments that stated that vendors do not treat pressure differential as a continuous operating parameter requirement. Rather it is presented as a maintenance requirement for catalysts on some engines. For this reason, we feel it is appropriate to require sources that must comply with the pressure drop requirement to measure this parameter monthly, as we do not expect the pressure drop across the catalyst to change significantly more frequently than monthly. Regarding the comment that the uniqueness of the installation should be given consideration in whether or not pressure drop is required to be monitored, we feel that we have gathered sufficient information from catalyst vendors that supports requiring the pressure drop to be monitored and maintained monthly. In addition, the commenter did not describe or provide information regarding how the uniqueness of the installation would affect whether or not monitoring and maintaining the pressure drop should be required.

Comment: Many commenters stated that the requirement to measure the temperature rise for rich burn RICE should be removed. One commenter had the opinion that 5 percent difference in temperature is not feasible or workable in practice. While a NSCR catalyst is more likely to show a positive temperature change across the catalyst, very low, or even negative, temperature changes are possible while the catalyst is functioning normally. One commenter did not think it is appropriate to specify that the temperature rise across a NSCR catalyst has to stay within 5 percent of the temperature rise (or any other specific value) measured at the initial source test. The commenter believed that this seems arbitrary. At one facility, the commenter has seen zero temperature change across the catalyst. Yet, NO_X, CO and volatile organic compounds (VOC) reductions were all occurring at high efficiency and in full compliance with requirements. It would be more appropriate to simply require that NSCR be operated in conjunction with an air-to-fuel ratio controller and that the catalyst inlet temperature simply be hot enough to ensure it is working, but not too hot to damage the catalyst.

One commenter said that Table 1b of the proposed rule stipulates that 4SRB RICE must ensure that the temperature

rise across the catalyst is no more than 5 percent different. The commenter asked what if the temperature is 10 percent different and would this not represent a higher degree of oxidation. The commenter questioned why this should not be allowed.

Response: As summarized above, we received several comments regarding the requirement in the proposed rule that 4SRB engines monitor and maintain the temperature rise across the NSCR. Based on the information received, we agree with the commenters that such a requirement would be inappropriate and most likely would not provide an accurate representation of how the catalyst is performing. We are including the requirement to measure the catalyst pressure drop monthly and to maintain and continuously monitor the catalyst inlet temperature to ensure that it remains between 750°F and 1250°F. It is our opinion that monitoring and maintaining these two parameters is sufficient to ensure proper catalyst operation. Therefore, we have not included the requirement to maintain the catalyst such that the temperature rise across the catalyst stays within 5 percent of the temperature rise measured during the initial performance test in the final rule.

Comment: One commenter argued that the requirement for an immediate startup, shutdown, and malfunction (SSM) report should indicate that this is required only when the actions addressing the malfunction were inconsistent with the startup, shutdown, and malfunction report (SSMP).

Two commenters stated that EPA should eliminate the immediate SSM report indicated in Table 7, item 2, of the proposed rule. One commenter further noted that any reporting requirements should be consistent with the General Provisions and the December 2002 proposal relating to reporting malfunctions only versus startups and shutdowns.

Two commenters recommended eliminating the requirement for an immediate SSMP in Table 7 of the proposed rule.

Response: We agree that immediate SSMP reports are unnecessary and have the potential of becoming a burdensome activity for sources with frequent startups and shutdowns. We have specified in the final rule that an immediate SSMP report is only required when actions addressing the startup, shutdown, or malfunction were inconsistent with the SSMP.

Comment: Two commenters requested annual compliance reports instead of the requirement of semiannual reporting of compliance reports in § 63.6650(3). One of the commenters asked that the language in this paragraph be modified to allow the flexibility for annual compliance reports in order to make the final rule consistent with other MACT standards. The commenter noted that they are seeing in the various State and Federal regulations the requirements for monthly, quarterly, semiannual, and annual reports, and keeping track of these is becoming quite difficult. One of the commenters stated that this will create an unnecessary paperwork burden for both the regulated community as well as for the regulatory agencies. A more reasonable approach would be to require an annual compliance report timed concurrently with the state EPA's typical emissions reporting requirement.

Response: We disagree that semiannual compliance reports are a burden. We feel that the submittal of semiannual reports will assist in identifying problem areas within a reasonable period of time. The requirement for semiannual compliance reporting is not inconsistent with previous MACT standards. Several MACT standards require compliance reports to be prepared and submitted semiannually. Enforcing agencies have been requiring semiannual compliance reports for a long time, and this has worked well and has helped EPA enforce rules appropriately. We feel the submittal of semiannual compliance reports is appropriate for stationary RICE complying with the final rule.

Comment: One commenter stated that readily available electronic records do not have to be stored on-site. In § 63.6660(c), the proposed RICE MACT requires that records be kept on-site for the first 2 years following the date of each occurrence, measurement, maintenance, corrective action, report or record. This requirement does not recognize the trend toward computerization of monitoring records. Many sites are making an intentional effort to move away from paper records of air compliance critical data whenever the opportunity presents itself. These electronic records reside on hardware referred to as servers. For a variety of reasons, these servers are not always located at the major source that would be affected by the RICE MACT. There are cases at companies where the server for an affected source is not located in the same State as the affected source. The concept of "readily accessible" should be more important, relative to current records, than the need for them to be on-site at the major source. The commenter urges EPA to recognize the trend to electronic record keeping by changing § 63.6660(c) to read as follows: "(c) Each record must be readily accessible in hard copy or electronic form on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report or record according to § 63.10(b)(1). You may keep the records off-site for the remaining 3 years."

Response: We agree with the commenter and feel that records that can be accessed on-site by a computer are valid and should be considered on-site records. Our understanding of the General Provisions is that it allows the interpretation that records that can be accessed on-site are acceptable. In any case, we have written § 63.6660(c) in the final rule according to the commenter's suggestion.

F. Testing

Comment: Several commenters pointed out that there is a 50 parts per million (ppm) NO_X limit advisory with the use of CARB Method 430. The commenters asked EPA to follow the direction of the CARB advisory. One commenter added that due to concerns about matrix interferences with CARB Method 430, as expressed in an advisory released by CARB, the commenter believed that it is inappropriate to include CARB Method 430 as a candidate method until its governing agency has more thoroughly researched method deficiencies and revised the method or rescinded the advisory.

Response: We agree that CARB Method 430 use should not be cited in the final rule. Therefore, we have not included CARB Method 430 as a test method in the final rule.

Comment: A few commenters recommended that EPA include proposed Method 323. One commenter felt that it is imperative that multiple test methods and technological approaches be available for formaldehyde measurement from engines. The EPA Method 323 addresses this need and appears to offer a reasonable alternative to FTIR for formaldehyde testing of engines. The method detection limits are within the range necessary to demonstrate compliance with a formaldehyde based limit. This method was investigated and developed by the Gas Technology Institute (GTI) as a low-cost alternative for engine formaldehyde measurement and has been validated for application to internal combustion engines in research conducted by GTI.

One commenter said that this method has the advantage of actually having been field-validated at the required concentration. Furthermore, it is simpler and less costly than the other methods. It is the commenter's

experience that with a similar chilled-impinger method for VOC (Method 25.3), they found it was critical to maintain near-ice-water temperatures in order to achieve 100 percent capture. The method might be modified by adding a final impinger and having that analyzed separately for breakthrough. Sulfur dioxide is listed as an interference, possibly because of its ability to bond with aldehydes. This bond is broken under acidic conditions. If this is found to be a problem, perhaps the sample can be acidified more to break up any complexes.

Response: We agree with the commenter and have included Method 323 as an optional method for natural gas-fired units in the final rule. We plan to develop a FAQ sheet for Method 323. We may include the commenter's suggestion for analyzing for breakthrough with another impinger and a caution to check the impinger exhaust temperature when assessing the data quality.

Comment: One commenter expressed the view that since EPA SW–846 Method 0011 uses a similar analytical approach as CARB Method 430, has not been validated for application to engines, and has quality assurance requirements considered less thorough than CARB Method 430, it should be excluded from the list of acceptable methods.

Response: We agree with the commenter that this method should not be specified as an acceptable method for this application. This method has not been included in the final rule.

Comment: A few commenters stated that EPA should allow ASTM Method D6348 as equivalent to Method 320. One commenter stated that the method is self-validating and includes clarity that the commenter believed will provide better consistency and reduce the likelihood of errors as FTIR becomes more widely implemented by the source test community. The ASTM method was developed and approved following a refereed process and considering the input and review of leading experts in the field.

Response: We identified ASTM D6348–03 as a potential national consensus based method in addition to Method 320 and Method 323. Upon review, we approved this method as an alternative to Method 320 for formaldehyde measurement provided in ASTM D6348–03, Annex 5 (Analyte Spiking Technique), percent R must be greater than or equal to 70 and less than or equal to 130.

Comment: Some commenters stated that quarterly emission testing with CO portable units should not be full performance tests. This provision is burdensome and unnecessary. The final rule should not require that the quarterly emission tests be full performance tests for the following reasons: (1) For full performance tests, engines in load-following applications may need to conduct emissions testing at multiple operating conditions, in accordance with the General Provisions' requirement that performance tests be conducted for representative conditions; (2) facilities with load-following operations, such as natural gas transmission and storage, may not be able to operate the engines over the full range of operating conditions on a quarterly basis; (3) full performance tests impose significant burden on the owner or operator to develop site-specific test plans, provide notification to the permitting authority 60 days in advance of the test, and submit the full results within 60 days of completion of the testing; and (4) review of other MACT standards indicates that full performance tests are not required more frequently than annually.

Response: We agree with the commenters that requiring full performance tests quarterly for sources complying with CO reduction requirement may impose significant burden on the owner or operator to develop site-specific test plans, provide notification to the permitting authority 60 days in advance of the test, and submit the full results within 60 days of completion of the testing. We now feel that quarterly testing for CO is unnecessary and inappropriate. In the final rule, we have specified that new 2SLB, new 4SLB, and new CI engines complying with requirement to reduce CO emissions must conduct semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved. Semiannual performance testing for CO in addition to monitoring and maintaining operating parameters will ensure, on an ongoing basis, that the applicable CO percent reduction requirement is being met. After demonstrating compliance for two consecutive tests, the frequency can be reduced to annually. However, if an annual performance test indicates a deviation of CO emissions from the CO reduction requirement, you must return to semiannual performance tests.

Comment: Some commenters contended that additional performance tests should not be required when NSCR or oxidation catalysts are replaced with identical units.

Response: We disagree. Additional performance tests are required to be performed even though an emission control device is replaced with an identical unit. The performance of identical catalysts can vary significantly, and it is not guaranteed that the NSCR or oxidation catalyst will achieve the same performance levels.

Comment: One commenter asked that EPA include similar language as in the Petroleum Refinery MACT for Catalytic Cracking Units which has the provision to make adjustments to one of the monitored operating parameters to acknowledge that it may not be possible to achieve worst-case operation during the performance test. In this scenario, the testing of a similar unit should be allowed to serve as the basis for establishing acceptable inlet temperatures.

One commenter remarked that initial performance tests should only have to be performed on one engine when an installation is provided with several identical engines.

Response: We do not agree that it is appropriate to allow a facility with identical engines to conduct testing on only one of the units to establish operating parameters. Although the units are identical, operating parameters, as well as emissions, could vary significantly from unit to unit. We do not agree that it is appropriate to allow a facility with identical engines to conduct performance tests on only one of the units to demonstrate compliance with the emission limits for all of the identical units. It is our experience that emissions from identical units can vary significantly.

Comment: One commenter stated that manufacturer's performance data should be allowable in lieu of an initial performance test.

Response: We are not allowing manufacturer's performance data in lieu of an initial performance test. Performance data provided by the manufacturer may not be representative of how the engine will perform in the field and may overestimate the engine's performance.

Comment: One commenter contended that the stack testing should be no more frequent than semiannual for CO. The stack testing for formaldehyde should be no more frequent than annual. The commenter added that both should also include the ability to go to even less frequent testing based upon good performance.

Response: We agree with the commenter and feel that it is appropriate to require semiannual performance tests for CO for sources meeting the CO percent reduction requirement. This has been specified in the final rule. The rationale for reducing the CO testing requirement was previously discussed. For CO stack

testing, we also agree with the commenter that it is appropriate to allow sources that demonstrate compliance for two consecutive tests, to reduce the frequency of subsequent performance tests to annually. However, if an annual performance test indicates a deviation of CO emissions from the CO reduction requirement, sources must return to semiannual performance tests. Regarding formaldehyde testing, we disagree with the commenter and feel that we have appropriately set the testing requirements for formaldehyde at semiannual performance tests. Periodic stack testing for CO and formaldehyde will ensure, on an ongoing basis, that the source is meeting the emission limitation requirements. For formaldehyde stack testing, if you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. However, if the results of any subsequent annual performance test indicate that the stationary engine is not in compliance with the formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

Comment: One commenter was of the opinion that EPA should allow facilities complying with the formaldehyde emission limitation to use existing performance test data to demonstrate initial compliance with the emission limit.

Response: We agree with the commenter that existing performance test data can be used to demonstrate compliance with the emission limit. The facility must petition the Administrator for approval, and demonstrate that the tests were conducted using the same test methods specified in the subpart, the test method procedures were correctly followed, no process or equipment changes have been made since the test, and the data is of good quality and is less than 2 years old. Existing test data can only be used to demonstrate initial compliance; after the initial compliance demonstration, facilities must then begin to follow the semiannual compliance test schedule. This has been specified in the final rule.

G. Risk-Based Approaches

The preamble to the proposed rule requested comment on whether there might be further ways to structure the final rule to focus on the facilities which pose significant risks and avoid the imposition of high costs on facilities that pose little risk to public health and the environment. Specifically, we requested comment on the technical and legal viability of three risk-based approaches: An applicability cutoff for threshold pollutants under the authority of CAA section 112(d)(4), subcategorization and delisting under the authority of CAA section 112(c)(1) and (9), and a concentration-based applicability threshold.[2]

We indicated that we would evaluate all comments before determining whether either approach would be included in the final rule. Numerous commenters submitted detailed comments on these risk-based approaches. These comments are summarized in the Response-to-Comments document (*see* **SUPPLEMENTARY INFORMATION** section).

Based on our consideration of the comments received and other factors, we have decided not to include the risk-based approaches in today's final rule. The risk-based approaches described in the proposed rule and addressed in the comments we received raise a number of complex issues. In addition, we must issue the final rule expeditiously because the statutory deadline for promulgation has passed, and we have agreed to a binding schedule in a consent decree entered in *Sierra Club* v. *Whitman*, Civil Action No. 1:01CV01537 (D.D.C.). Given the range of issues raised by the risk-based approaches and the need to promulgate a final rule expeditiously, we feel that it is not appropriate to include any risk-based approaches in today's final rule.

H. Other

Comment: One commenter stated that NO_X increases due to oxidation catalysts for 2SLB and 4SLB engines should be considered in evaluating the cost and benefits of the proposed rule. Test results for 2SLB and 4SLB engines (Docket ID Nos. OAR–2002–0059 and A–95–35) equipped with oxidation catalysts indicate an increase of NO_X emissions up to about 15 percent and 12 percent for 2SLB and 4SLB engines, respectively. It is not clear that the impacts of this NO_X increase has been addressed with respect to the ability of sources to comply with State and local NO_X limits or impacts on the environment.

Response: We did consider NO_X increases due to oxidation catalysts for 2SLB and 4SLB engines. However, the NO_X increases resulting from 2SLB and 4SLB installing oxidation catalyst controls to comply with the final rule are far less than the NO_X decreases resulting from 4SRB engines installing NSCR controls to comply with the final rule, resulting in a net decrease in NO_X emissions due to the final rule and a benefit to the environment overall. In addition, oxidation catalysts are not specifically required by the final rule and as only new 2SLB and new 4SLB engines are affected by the final rule, sources that are concerned about NO_X emissions can use other methods of HAP emission control that are less problematic from a NO_X control perspective (like in-cylinder controls), or they can use NO_X control to reduce NO_X from engines using oxidation catalysts.

Comment: One commenter contended that data from testing of 2SLB and 4SLB should be disallowed. The commenter provided the following reasons: (1) The range of engine operating conditions in the testing of the 2SLB engine and quite probably the 4SLB engine are far leaner than the leanest engine in the pipeline RICE fleet. This is indicated by the extremely low NO_X emissions. (2) Engines equipped with pre-combustion chambers operating extremely lean are not typical examples of the 2SLB and 4SLB fleet. (3) The range of exhaust temperatures, air-to-fuel ratios, and exhaust oxygen are not typical of 2SLB and 4SLB. (4) Engines were laboratory research engines. They were not equipped with turbochargers, but with turbocharger simulators that do not have the same traits as a turbocharger. (5) Found no information in the piping diagrams of insulation on the ducting and manifolds leading from the engine to the catalyst. Certainly all ducting is insulated in industry. The EPA needs to determine if any insulation was in place. (6) The following excerpt from page 77840 of the proposed rule is not true: "In general, higher exhaust temperatures lead to better catalyst performance. This difference in temperatures is a function of the inherent design of these engine types and cannot be controlled by the operator." By controlling the air-to-fuel ratio of the engine, the exhaust gas temperature, and thus the catalyst inlet temperature, can be precisely controlled. (7) If HAP data from the 2SLB and 4SLB testing is allowed to stand, then this testing must become the definitive work on all pollutants tested as well, including NO_X. The NO_X data should be forwarded to the criteria pollutant group.

One commenter disagreed that the engine at CSU is representative of 2SLB engines in the industry due to low NO_X levels, high levels of oxygen, and low exhaust temperatures. The 2SLB engine was running considerably leaner than

[2] *See* 68 FR 1276 (January 9, 2003) (Plywood and Composite Wood Products Proposed NESHAP) and Docket ID No. A–98–44 (White Papers submitted to EPA outlining the risk-based approaches).

similar model engines at similar conditions.

Response: We compared these parameters to other 2SLB and 4SLB engines for which we have information in the emissions database. The NO_X and oxygen levels and exhaust temperatures for the 2SLB and 4SLB engines tested at CSU are similar to those observed for other non-CSU 2SLB and 4SLB engines in the emissions database. This analysis is presented in a memorandum included in the rule docket (Docket ID Nos. OAR–2002–0059 and A–95–35). We feel that the 2SLB and 4SLB engines tested at CSU are representative of 2SLB and 4SLB engines in the industry. As far as insulation is concerned, the catalyst inlet temperature recorded should represent catalyst performance at that temperature regardless of insulation presence or absence. It should be remembered that the MACT standard for new sources under CAA section 112(d) is based on the level of control of the best controlled similar source.

Comment: One commenter stated that the testing did not include in its test protocol dynamic spiking that is required in Method 320 which leaves some question to the integrity of the sample measured in the test program.

Response: An alternative quality assurance procedure was proposed and followed resulting in data of sufficient quality. The entire FTIR sampling analysis system was validated on a 2SLB engine by a dynamic spiking of formaldehyde, acrolein, and acetaldehyde. The data were assessed following Method 301 criteria. Then, on a daily basis, the analyzer was checked for linearity and alignment, a diagnostic or transfer standard consisting of the CO was used to confirm accuracy, a second diagnostic standard consisting of CO_2, CO, methane, and NO_X was introduced using the same procedure. Then to check sampling system integrity, a formaldehyde standard was introduced directly into the instrument and a reading obtained, then it was introduced into the sampling system at the sample probe upstream of the filter and another reading obtained. The sampling system pass/fail criterion was 100 percent ±10 percent of the direct-to-the-analyzer reading. Finally, the diagnostic and system integrity procedures were repeated at the end of each day testing. This procedure resulted in data of sufficient quality.

Comment: One commenter asked that EPA clarify retesting requirements on new sources. Section 63.6610 of the proposed rule is ambiguous on the General Provisions requirement for some new sources to retest 3 years after promulgation in § 63.7(a)(2)(ix). Table 8, item 24, or the proposed rule does not clarify the issue.

Response: Section 63.7(a)(2)(ix) of the General Provisions discusses performance test dates if the promulgated standard is more stringent than the proposed standard. Sources that commenced construction or reconstruction between the proposal and promulgation have the option to demonstrate compliance with either the proposed or the promulgated standard. If the owner or operator chooses to comply with the proposed standard initially, the owner or operator must conduct a second performance test within 3 years to demonstrate compliance with the promulgated standard. Since the promulgated standard is in some cases more stringent than the proposed standard, we have specified in § 63.6610(c) of the final rule that sources that commenced construction or reconstruction between the proposal and promulgated have this option.

Comment: A few commenters asserted that the basis for any size threshold should be expressed in site-rated HP as opposed to manufacturer's nameplate HP. One commenter gave the following reasons: (1) The database used by EPA to determine the MACT floor provisions likely includes the site-rated HP, based on the facility's air permit; (2) stationary RICE are typically identified by site-rated HP, rather than manufacturer's nameplate HP in the facility's title V permit and not all engines have HP on the nameplate; and (3) the Federal Energy Regulatory Commission certified HP for natural gas transmission facilities are issued based on site-rated HP.

Response: We contacted one of the commenters who submitted this comment and also an engine manufacturer. Information received from both sources indicated that there may be differences between site-rated HP and the manufacturer's nameplate rating. Factors such as altitude, temperature, fuel, etc. affect what the site-rated HP will be for the engine at a specific location. Some manufacturers include the specific site-rating on the nameplate of the engine, which is a HP rating which has been adjusted to account for the characteristics of the location the engine is installed at as well as other parameters affecting the engine rating. For these reasons, we agree with the commenters that it is appropriate to use the site-rated HP as opposed to the manufacturer's nameplate rating for the size applicability criteria, because relying on the manufacturer's nameplate rating may not be representative of the capability of the engine on-site. This has been specified in the final rule.

Comment: Some commenters asked that EPA include non-aggregation provisions for transmission and storage facilities for the Transmission & Storage (T&S) MACT.

Response: We have incorporated this comment in the final rule. The non-aggregation provisions for transmission and storage facilities from the Natural Gas Transmission and Storage MACT (40 CFR part 63, subpart HHH), which are found in the definition of major source in that subpart, are as follows: (1) Emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, whether or not such units are in a contiguous area or under common control; and (2) emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in this section, shall not be aggregated.

The non-aggregation provisions in (1) above were already included in the proposed definition of major source for the RICE NESHAP and have been retained in the final rule. The non-aggregation provisions in (2) above have also been added to the definition of major source for the RICE NESHAP.

Comment: Some commenters requested that EPA include the provisions to calculate potential emissions for storage facilities from the T&S MACT.

Response: We agree with the commenters and have incorporated their comment in the final rule by modifying the definition of potential to emit in the final rule to include the following: "For oil and natural gas production facilities subject to subpart HH of this part, the potential to emit provisions in § 63.760(a) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to § 63.1270(a)(1) and the maximum annual throughput for transmission facilities may be may be determined according to § 63.1270(a)(2)."

Comment: Two commenters asked that EPA list diesel PM as a HAP. One of the commenters stated that if EPA fails to act on its own initiative, the commenter will submit a formal listing petition to EPA. One commenter recommended including diesel PM in this MACT and including limits and control measures.

Response: We acknowledge the comments on this issue. However, we are not prepared at this time to list

diesel PM as a regulated HAP, at least not in the context of the final rule. We proposed the rule for the purposes of promulgating regulations for emissions from stationary RICE that were already listed under section 112 of the CAA. While we did mention the diesel exhaust issue, we did not include any detailed discussion on the separate issue of whether any additional pollutants should be added to the list of regulated pollutants under CAA section 112. The decision regarding whether to list diesel PM entails several significant issues that have not been discussed in the context of the final rule. Therefore, it would be inappropriate to take final action on this comment in the context of the final rule.

V. Summary of Environmental, Energy and Economic Impacts

A. What Are the Air Quality Impacts?

The final rule will reduce total HAP emissions from stationary RICE by an estimated 5,600 tpy in the 5th year after the standards are implemented. We estimate that approximately 1,800 existing 4SRB stationary RICE will be affected by the final rule. In addition, we estimate that approximately 1,600 new 2SLB, 4SLB and 4SRB stationary RICE, and CI stationary RICE will be affected by the final rule each year for the next 5 years. At the end of the 5th year, it is estimated that 8,100 new stationary RICE will be subject to the final rule.

To estimate air impacts, HAP emissions from stationary RICE were estimated using average emission factors from the emissions database. It was also assumed that each stationary RICE is operated for 6,500 hours annually. The total national HAP emissions reductions are the sum of formaldehyde, acetaldehyde, acrolein, and methanol emissions reductions.

In addition to HAP emissions reductions, the final rule will reduce criteria pollutant emissions including CO, VOC, NO_X, and PM. The application of NSCR controls to 4SRB engines (the technology on which MACT for 4SRB engines is based) will also reduce NO_X emissions by 90 percent. It is possible that oxidation catalyst controls could be used to meet the 4SRB emission standards, but it is expected that the costs of controls will be similar for both systems. Assuming that 60 percent of the 4SRB (new and existing) engines that are covered by the emission standards will use NSCR, the emissions reductions of NO_X in the 5th year after promulgation are calculated to be about 167,900 tpy.

B. What Are the Cost Impacts?

A list of 26 model stationary RICE was developed to represent the range of existing stationary RICE. Information was obtained from catalyst vendors on equipment costs for oxidation catalyst and NSCR. This information was then used to estimate the costs of the final rule for each model stationary RICE following methodologies from the Office of Air Quality Planning and Standards (OAQPS) Control Cost Manual. These cost estimates for model stationary RICE were extrapolated to the national population of stationary RICE in the United States, and national impacts were determined.

The total national capital cost for the final rule for existing stationary RICE is estimated to be approximately $68 million, with a total national annual cost of $35 million in the 5th year. The total national capital cost for the final rule for new stationary RICE by the 5th year is estimated to be approximately $371 million, with a total national annual cost of $213 million in the 5th year.

C. What Are the Economic Impacts?

We prepared an economic impact analysis to evaluate the primary and secondary impacts the final rule would have on the producers and consumers of RICE, and society as a whole. The affected engines operate in over 30 different manufacturing markets, but a large portion are located in the oil and gas exploration industry, the oil and gas pipeline (transmission) industry, the mining and quarrying of non-metallic minerals industry, the chemicals and allied products industry, and the electricity and gas services industry. Taken together, these industries can have an influence on the price and demand for fuels used in the energy market (*i.e.*, petroleum, natural gas, electricity, and coal). Therefore, our analysis evaluates the impacts on each of the 30 different manufacturing markets affected by the final rule, as well as the combined effect on the market for energy. The total annualized social cost (in 1998 dollars) of the final rule is $248 million but this cost is spread across all 30 markets and the fuel markets. Overall, our analysis indicates a minimal change in prices and quantity produced in most of the fuel markets. The distribution of impacts on the fuel markets and the specific manufacturing market segments evaluated are summarized in Table 1 of this preamble.

TABLE 1.—ECONOMIC IMPACT OF FINAL RICE RULE ON AFFECTED MARKET SECTORS

Market sector	Change in price (percent)	Change in market output (percent)	Total social cost (millions of 1998$)
Fuel Markets: [1]			
Petroleum	0.015	−0.003	−$15.7
Natural Gas	0.300	−0.040	−102.5
Electricity	0.040	0.009	26.6
Coal	0.008	0.008	1.1
Subtotal			−90.4
Sectors of Energy Consumption:			
Commercial Sector			−161.6
Residential Sector			−98.9
Transportation Sector			−47.0
Mining and Quarrying	0.050	−0.001	−52.6
Food and Kindred Products	0.002	−0.002	−16.2
Paper and Allied Products	0.002	−0.003	−14.5
Chemicals and Allied Products	0.004	−0.006	−49.8
Primary Metals	0.004	−0.004	−18.9
Fabricated Metal Products	0.002	−0.000	5.0
Nonmetallic Mineral Products	0.005	−0.005	−9.9

TABLE 1.—ECONOMIC IMPACT OF FINAL RICE RULE ON AFFECTED MARKET SECTORS—Continued

Market sector	Change in price (percent)	Change in market output (percent)	Total social cost (millions of 1998$)
Other Manufacturing Markets	0.0–0.001	0.0–0.001	−53.8

[1] Only changes in producer surplus (*i.e.*, producer's share of regulatory costs) are reported for the Fuel Markets which represent the producers of energy. Sectors of energy consumption—commercial, residential, and transportation—have reported changes in consumer surplus only, and thus do not have reported changes in price and output. A combination of these costs will represent total social costs for the energy market in the economy.

Because a significant portion of the engines affected by the final rule use natural gas as a fuel source, it is not surprising to see the natural gas fuel market with the largest portion of the social costs. Although the natural gas market has a greater share of the regulatory burden, the overall impact on prices and output is about three-tenths of one percent, which is considered to be a minor economic impact on this industry. The change in the price of natural gas is not expected to influence the purchase decisions for new engines. Our analysis indicates that at most, five fewer engines out of over 20,000 engines will be purchased as a result of economic impacts associated with the final rule. The electricity and coal markets may experience a slight gain in revenues due to some fuel switching from natural gas to coal or electricity.

The total welfare loss for the manufacturing industries affected by the final rule is estimated to be approximately $103.0 million for consumers and $117.7 million for producers in the aggregate. In comparison to the energy expenditures of these industries (estimated to be $101.2 billion), the cost of the final rule to producers as a percentage of their fuel expenditures is 0.12 percent. For consumers, the total value of shipments for the affected industries is $3.95 trillion in 1998, so the cost to consumers as a percentage of spending on the outputs from these industries is nearly zero, or 0.003 percent.

The cost to residential consumers at $98.9 million is larger than for any individual manufacturing market, but less than the total consumer surplus losses in the manufacturing industries. In comparison, the social cost burden to residential consumers of fuel is 0.08 percent of residential energy expenditures ($98.9 million/$131.06 billion). The commercial sector of energy users also experiences a moderate portion of total social costs at an estimated $69.3 million. This amount is also larger than for any individual manufacturing sector, but is an aggregate across all commercial NAICS codes. As a percentage of fuel expenditures by this sector of fuel consumers, the regulatory burden is 0.07 percent ($69.3 million/$96.86 billion). The cost to transportation consumers is estimated to be $47.0 million. This cost represents 0.02 percent ($47.0 million/$188.13 billion) of energy expenditures for the transportation sector.

Therefore, giving consideration to the minimal changes in prices and output in nearly all markets, and the fact that the regulatory costs that are shared by commercial, residential, and transportation users of fuel energy are a small fraction of typical energy expenditures in these sectors each year, we conclude that the economic impacts of the final rule will not be significant to any one sector of the economy.

The economic analysis described above assumed that all existing 4SRB engines and all new engines were located at major HAP emission sources and are required to install controls. However, as stated previously, we anticipate that at least 60 percent of the stationary RICE will be located at area sources which are not affected by the final rule. Therefore, the economic impacts described above would be reduced.

D. What Are the Non-Air Health, Environmental and Energy Impacts?

We do not expect any significant wastewater, solid waste, or energy impacts resulting from the final rule. Energy impacts associated with the final rule would be due to additional energy consumption that the final rule would require by installing and operating control equipment. The only energy requirement for the operation of the control technologies is a very small increase in fuel consumption resulting from back pressure caused by the emission control system.

VI. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), we must determine whether a regulatory action is "significant" and, therefore, subject to review by the Office of Management and Budget (OMB) and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, we have determined that the final rule is a "significant regulatory action" because it could have an annual effect on the economy of over $100 million. Consequently, this action was submitted to OMB for review under Executive Order 12866. Any written comments from OMB and written EPA responses are available in the docket.

As stipulated in Executive Order 12866, in deciding how or whether to regulate, EPA is required to assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating. To this end, EPA prepared a detailed benefit-cost analysis in the "Regulatory Impact Analysis of the Reciprocating Internal Combustion Engines NESHAP," which is contained in the docket. The following is a summary of the benefit-cost analysis.

It is estimated that 5 years after implementation of the final rule, HAP will be reduced by 5,600 tpy due to reductions in formaldehyde, acetaldehyde, acrolein, methanol, and several other HAP from some existing and all new internal combustion engines. Formaldehyde and acetaldehyde have been classified as

"probable human carcinogens" based on scientific studies conducted over the past 20 years. These studies have determined a relationship between exposure to these HAP and the onset of cancer; however, there are some questions remaining on how cancers that may result from exposure to these HAP can be quantified in terms of dollars. Acrolein, methanol and the other HAP emitted from RICE sources are not considered carcinogenic but have been reported to cause several noncarcinogenic effects.

The control technology to reduce the level of HAP emitted from RICE are also expected to reduce emissions of criteria pollutants, primarily CO, NO_X, and PM, however, VOC are also reduced to a minor extent. It is estimated that CO emissions reductions totals approximately 234,400 tpy, NO_X emissions reductions totals approximately 167,900 tpy, and PM emissions reductions totals approximately 3,700 tpy. These reductions occur from new and existing engines in operation 5 years after the implementation of the rule and are expected to continue throughout the life of the engines and continue to grow as new engines (that otherwise would not be controlled) are purchased for operation.

Human health effects associated with exposure to CO include cardiovascular system and CNS effects, which are directly related to reduced oxygen content of blood and which can result in modification of visual perception, hearing, motor and sensorimotor performance, vigilance, and cognitive ability. Emissions of NO_X can transform into PM in the atmosphere, which produces a variety of health and welfare effects. In general, exposure to high concentrations of $PM_{2.5}$ may aggravate existing respiratory and cardiovascular disease including asthma, bronchitis and emphysema, especially in children and the elderly. Nitrogen oxides are also a contributor to acid deposition, or acid rain, which causes acidification of lakes and streams and can damage trees, crops, historic buildings and statues. Exposure to $PM_{2.5}$ can lead to decreased lung function, and alterations in lung tissue and structure and in respiratory tract defense mechanisms which may then lead to increased respiratory symptoms and disease, or in more severe cases, premature death or increased hospital admissions and emergency room visits. Children, the elderly, and people with cardiopulmonary disease, such as asthma, are most at risk from these health effects. Fine PM can also form a haze that reduces the visibility of scenic areas, can cause acidification of water bodies, and have other impacts on soil, plants, and materials. As NO_X emissions transform into PM, they can lead to the same health and welfare effects listed above.

At the present time, the Agency cannot provide a monetary estimate for the benefits associated with the reductions in CO. For NO_X and PM, we conducted an air quality assessment to determine the change in concentrations of PM that result from reductions of NO_X and direct emissions of PM at all sources of RICE. Because we are unable to identify the location of all affected existing and new sources of RICE, our analysis is conducted in two phases. In the first phase, we conduct an air quality analysis assuming a 50 percent reduction of 1996-levels of NO_X emissions and a 100 percent reduction of PM_{10} emissions for all RICE sources throughout the country. The results of this analysis serve as a reasonable approximation of air quality changes to transfer to the final rule's emissions reductions at affected sources. The results of the air quality assessment served as input to a model that estimates the benefits related to the health effects listed above. In the second phase of our analysis, the value of the benefits per ton of NO_X and PM reduced (*e.g.*, $ benefit/ton reduced) associated with the air quality scenarios are then applied to the tons of NO_X and PM emissions expected to be reduced by the final rule. We also used the benefit transfer method to value improvements in ozone based on the transfer of benefit values from an analysis of the 1998 NO_X SIP call. In addition, although the benefits of the welfare effects of NO_X are monetized in other Agency analyses, we chose not to do an analysis of the improvements in welfare effects that will result from the final rule. Alternatively, we could transfer the estimates of welfare benefits from these other studies to this analysis, but chose not to do so because these studies with estimated welfare benefits differ in the source and location of emissions and associated impacted populations.

The benefit estimates derived from the air quality modeling in the first phase of our analysis uses an analytical structure and sequence similar to that used in the benefits analyses for the proposed Nonroad Diesel rule and proposed Integrated Air Quality Rule (IAQR) and in the "section 812 studies" analysis of the total benefits and costs of the CAA. We used many of the same models and assumptions used in the Nonroad Diesel and IAQR analyses as well as other Regulatory Impact Analyses (RIA) prepared by the Office of Air and Radiation. By adopting the major design elements, models, and assumptions developed for the section 812 studies and other RIA, we have largely relied on methods which have already received extensive review by the independent Science Advisory Board (SAB), the National Academies of Sciences, by the public, and by other Federal agencies.

The benefits transfer method used in the second phase of the analysis is similar to that used to estimate benefits at the proposal of the rule, and in the proposed Industrial Boilers and Process Heaters NESHAP. A similar method has also been used in recent benefits analyses for the proposed Nonroad Large Spark-Ignition Engines and Recreational Engines rule (67 FR 68241, November 8, 2002).

The sum of benefits from the two phases of analysis and the ozone benefit transfer estimate provide an estimate of the total benefits of the final rule. Total benefits of the final rule are approximately $280 million (1998$).

Every benefit-cost analysis examining the potential effects of a change in environmental protection requirements is limited, to some extent, by data gaps, limitations in model capabilities (such as geographic coverage), and uncertainties in the underlying scientific and economic studies used to configure the benefit and cost models. Deficiencies in the scientific literature often result in the inability to estimate changes in health and environmental effects. Deficiencies in the economics literature often result in the inability to assign economic values even to those health and environmental outcomes that can be quantified. While these general uncertainties in the underlying scientific and economics literatures are discussed in detail in the RIA and its supporting documents and references, the key uncertainties which have a bearing on the results of the benefit-cost analysis of today's action are the following:

(1) The exclusion of potentially significant benefit categories (*e.g.*, health and ecological benefits of reduction in HAP emissions);

(2) Errors in measurement and projection for variables such as population growth;

(3) Uncertainties in the estimation of future year emissions inventories and air quality;

(4) Uncertainties associated with the extrapolation of air quality monitoring data to some unmonitored areas required to better capture the effects of the standards on the affected population;

(5) Variability in the estimated relationships of health and welfare effects to changes in pollutant concentrations; and

(6) Uncertainties associated with the benefit transfer approach.

Despite these uncertainties, we have determined that the benefit-cost analysis provides a reasonable indication of the expected economic benefits of the final rule under a given set of assumptions.

In addition to the presentation of quantified health benefits, our estimate also includes a "B" to represent those additional health and environmental benefits which could not be expressed in quantitative incidence and/or economic value terms. A full appreciation of the overall economic consequences of the RICE NESHAP requires consideration of all benefits and costs expected to result from the new standards, not just those benefits and costs which could be expressed here in dollar terms. A full listing of the benefit categories that could not be quantified or monetized in our estimate are provided in Table 2 of this preamble.

TABLE 2.—UNQUANTIFIED BENEFIT CATEGORIES FROM RICE EMISSIONS REDUCTIONS

	Unquantified benefit categories associated with HAP	Unquantified benefit categories associated with Ozone	Unquantified benefit categories associated with PM
Health Categories	Carcinogenicity mortality; Genotoxicity mortality; Non-Cancer lethality; Pulmonary function decrement; Dermal irritation; Eye irritation; Neurotoxicity; Immunotoxicity; Pulmonary function decrement; Liver damage; Gastrointestinal toxicity; Kidney damage; Cardiovascular impairment; Hematopoietic; (Blood disorders); Reproductive/Developmental toxicity.	Airway responsiveness; Pulmonary inflammation; Increased susceptibility to respiratory infection; Acute inflammation and respiratory cell damage; Chronic respiratory damage/Premature aging of lungs; Emergency room visits for asthma.	Changes in pulmonary function; Morphological changes; Altered host defense mechanisms; Cancer; Other chronic respiratory disease; Emergency room visits for asthma; Lower and upper respiratory symptoms; Acute bronchitis; Shortness of breath.
Welfare Categories	Corrosion/Deterioration; Unpleasant odors; Transportation safety concerns; Yield reductions/Foliar injury; Biomass decrease; Species richness decline; Species richness decline; Species diversity decline; Community size decrease; Organism lifespan decrease; Trophic web shortening.	Ecosystem and vegetation effects in Class I areas (*e.g.*, national parks); Damage to urban ornamentals (*e.g.*, grass, flowers, shrubs, and trees in urban areas); Commercial field crops; Fruit and vegetable crops; Reduced yields of tree seedlings, commercial and non-commercial forests; Damage to ecosystems, Materials damage.	Materials change; Damage to ecosystems (*e.g.*, acid sulfate deposition); Nitrates in drinking water.

Benefit-cost comparison (or net benefits) is another tool used to evaluate the reallocation of society's resources needed to address the pollution externality created by the operation of RICE units. The additional costs of internalizing the pollution produced at major sources of emissions from RICE units is compared to the improvement in society's well-being from a cleaner and healthier environment. Comparing benefits of the final rule to the costs imposed by alternative ways to control emissions optimally identifies a strategy that results in the highest net benefit to society. In the case of the RICE NESHAP, we are specifying only one option, the minimal level of control mandated by the CAA, or the MACT floor.

Based on estimated compliance costs (control + administrative costs associated with Paperwork Reduction Act requirements associated with the final rule and predicted changes in the price and output of electricity and other affected products), the estimated social costs of the RICE NESHAP are $248 million (1998$). Social costs are different from compliance costs in that social costs take into account the interactions between affected producers and the consumers of affected products in response to the imposition of the compliance costs.

As explained above, we estimate $280 million in benefits from the final rule, compared to $248 million in costs. Thus, the total benefits (associated with NO_X and PM reductions) exceed the estimated total costs of the final rule by $30 million + B. It is important to put the results of this analysis in the proper context. The large benefit estimate is not attributable to reducing human and environmental exposure to the HAP that are reduced by the final rule. It arises from ancillary reductions in PM and NO_X that result from controls aimed at complying with the NESHAP. Although consideration of ancillary benefits is reasonable, we note that these benefits are not uniquely attributable to the regulation. The Agency has determined that the key rationale for controlling formaldehyde, acetaldehyde, acrolein, methanol, and the other HAP associated with the final rule is to reduce public and environmental exposure to these HAP, thereby reducing risk to public health and wildlife. Although the available science does not support quantification of these benefits at this time, the Agency has determined that the qualitative benefits are large enough to justify substantial investment in these emissions reductions.

It should be recognized, however, that this analysis does not account for many of the potential benefits that may result from these actions. The net benefits would be greater if all the benefits of the other pollutant reductions could be quantified. Notable omissions to the net benefits include all benefits of HAP reductions, including reduced cancer incidences, toxic morbidity effects, and cardiovascular and CNS effects, and all welfare effects from reduction of ambient PM and SO_2.

Table 3 presents a summary of the costs, emission reductions, and quantifiable benefits by engine type. Table 4 presents a summary of net benefits. Approximately 90 percent of the total benefits ($255 million + B) are associated with NO_X reductions from the 4SRB subcategory for new and existing engines. Approximately 10 percent of the total benefits ($25 million + B) are associated with the PM reductions from the compression ignition engine subcategory at new sources.

In both cases, net benefits would be greater if all the benefits of the HAP and

other pollutant reductions could be quantified. Notable omissions to the net benefits include all benefits of HAP and CO reductions, including reduced cancer incidences, toxic morbidity effects, and cardiovascular and CNS effects. It is also important to note that not all benefits of NO_X reductions have been monetized. Categories which have contributed significantly to monetized benefits in past analyses (see the RIA for the Heavy Duty Engine/Diesel standards) include commercial agriculture and forestry, recreational and residential visibility improvements, and estuarine improvements.

TABLE 3.—SUMMARY OF COSTS, EMISSION REDUCTIONS, AND QUANTIFIABLE BENEFITS BY ENGINE TYPE

Type of engine	Total annualized cost (million $/yr in 2005)	Emission reductions [1] (tons/yr in 2005)				Quantifiable annual monetized benefits [2] (million) $/yr in 2005)
		HAP	CO	NO_X	PM	
2SLB—New	$3	250	2,025	0	0	B_1
4SLB—New	64	4,035	36,240	0	0	B_3
4SRB—Existing	37	230	98,040	69,900	0	$105 + B_5
4SRB—New	47	215	91,820	98,000	0	150 + B_9
CI—New	96	305	6,320	0	3,700	25 + B_{13}
Total	248	5,035	234,445	167,900	3,700	$280 + B

[1] All benefits values are rounded to the nearest $5 million.
[2] Benefits of HAP and CO emissions reductions are not quantified in this analysis and, therefore, are not presented in this table. The quantifiable benefits are from emission reductions of NO_X and PM only. For notational purposes, unquantified benefits are indicated with a "B" to represent monetary benefits. A detailed listing of unquantified NO_X, PM, and HAP related health effects is provided in Table 2 of this preamble.

TABLE 4.—ANNUAL NET BENEFITS OF THE RICE NESHAP IN 2005

	Million 1998$ [1]
Social Costs [2]	$250
Social Benefits [2 3]:	
HAP-related benefits	Not monetized
CO-related benefits	Not monetized
Ozone- and PM-related Welfare benefits	Not monetized
Ozone- and PM-related Health benefits	$280 + B
Net Benefits (Benefits-Costs)[3]	$30 + B

[1] All costs and benefits are rounded to the nearest $5 million.
[2] Note that costs are the total costs of reducing all pollutants, including HAP and CO, as well as NO_X and PM_{10}. Benefits in this table are associated only with PM and NO_X reductions.
[3] Not all possible benefits or disbenefits are quantified and monetized in this analysis. Potential benefit categories that have not been quantified and monetized are listed in Table 2 of this preamble. B is the sum of all unquantified benefits and disbenefits.

B. Paperwork Reduction Act

The information collection requirements in the final rule have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The information requirements are not enforceable until OMB approves them.

The information requirements are based on notification, recordkeeping, and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A), which are mandatory for all operators subject to national emission standards. These recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414). All information submitted to EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to Agency policies set forth in 40 CFR part 2, subpart B.

The final rule will require maintenance inspections of the control devices but will not require any notifications or reports beyond those required by the General Provisions. The recordkeeping requirements require only the specific information needed to determine compliance.

The annual monitoring, reporting, and recordkeeping burden for this collection (averaged over the first 3 years after the effective date of the final rule) is estimated to be 141,984 labor hours per year at a total annual cost of $11,377,592. This estimate includes a one-time performance test, semiannual excess emission reports, maintenance inspections, notifications, and recordkeeping. Total capital/startup costs associated with the monitoring requirements over the 3-year period of the information collection request (ICR) are estimated at $5,302,416 (an average of $1,767,472 per year), with operation and maintenance costs of $1,206,212/yr.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR part 9. When the ICR is approved by OMB, the Agency will publish a technical

amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number for the approved information collection requirements contained in the final rule.

C. Regulatory Flexibility Act

We have determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the final rule.

For purposes of assessing the impacts of the final rule on small entities, "small entity" is defined as: (1) A small business whose parent company has fewer than 500 employees (for most affected industries); (2) a small governmental jurisdiction that is a government or a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. It should be noted that the final rule covers more than 25 different industries. For each industry, we applied the definition of a small business provided by the Small Business Administration (SBA) at 13 CFR 121, classified by the NAICS. The SBA defines small businesses in most industries affected by the final rule as those with fewer than 500 employees. However, SBA has defined "small business" differently for a limited number of industries, either through reference to another employment cap or through the substitution of total yearly revenues in place of an employment limit. For more information on the size standards for particular industries, please refer to the regulatory impact analysis in the docket.

After considering the economic impacts of today's final rule on small entities, we have concluded that this action will not have a significant economic impact on a substantial number of small entities. In support of this conclusion, we examined the percentage of annual revenues that compliance costs may consume if small entities must absorb all of the compliance costs associated with the final rule. Since many firms will be able to pass along some or all compliance costs to customers, actual impacts to affected firms will frequently be lower than those analyzed here.

As is mentioned in section II.A of this preamble, the final rule will set standards for new and existing 4SRB units. We identified a total of 26,832 existing engines located at commercial, industrial, and government facilities. From this initial population of 26,832 engines, 10,118 engines were excluded because the final rule will not cover engines 500 brake HP or less, emergency, or limited use engines. Of the 16,714 units remaining, 2,645 units had sufficient information to assign to model unit numbers developed during the cost analysis. These 2,645 units were linked to 834 existing facilities, owned by 153 parent companies. Sales and employment information was unavailable for 12 of the 153 parent companies. A total of 47 companies linked to engines with sufficient information to be included in the cost analysis were identified as small entities, and 13 of them own 4SRB engines. These small entities own a total of 39 4SRB units at 21 facilities.

Based on a technical support document in the docket (Docket ID Nos. OAR–2002–0059 and A–95–35) discussing the distribution of major and area sources of RICE units, we anticipate that about 60 percent of existing and future stationary RICE units will be located at area sources. This is because most RICE engines or groups of RICE engines are not major sources of HAP emissions by themselves, but may be major because they are co-located at major HAP sites. Because area sources are not covered by the NESHAP, engines located at area sources will not incur any compliance costs associated with the RICE NESHAP. Thus, 40 percent of the existing 4SRB engines that are above 500 HP and are not backup/emergency units (the only existing engines that receive costs under the rule) and 40 percent of all new RICE projected to be added in the future (above 500 HP that are not backup/emergency units) are expected to be subject to today's action. Based on this assumption, about 16 of the 39 4SRB units identified at facilities owned by small businesses would be located at major sources.

In applying the compliance costs to our modeling for generating economic impact and small business analyses, we calculate impacts (as mentioned in Section 6 of the economic impact analysis) presuming that all 39 4SRB engines are located at major sources and hence will bear compliance costs associated with this action. We make this presumption because it is highly uncertain which facilities are major sources and which are area sources. Thus, we assume a worst case scenario that all existing 4SRB owned by small businesses are located at major sources and subject to the rule to provide a conservative or high estimate of the small business impacts. This is called an "upper bound cost scenario" because only 40 percent and not 100 percent of all RICE units are estimated to be at major sources, and therefore subject to the rule. It is reasonable to expect that the percentage of facilities owned by small businesses that are major sources would be lower than the average for the whole source category, so even fewer existing 4SRB owned by small businesses may be affected.

Under the upper bound cost scenario, there are no small firms that have compliance costs above 3 percent of firm revenues and two small firms owning 4SRB engines that have impacts between 1 and 3 percent of revenues. In addition to 12 small firms with 4SRB engines, there is one small government in the population database affected by the final rule. The costs to this city are approximately $3 per capita annually assuming their engine is affected by the final rule, less than 0.01 percent of median household income.

Based on this subset of the existing engines population, the final rule will not affect small entities owning RICE at a cost to sales ratio (CSR) greater than 3 percent, while potentially up to 15 percent (2/13) of those small entities owning RICE greater than 500 HP will have compliance costs between 1 and 3 percent of sales under an upper bound cost scenario.

Assuming the same breakdown of large and small company ownership of engines in the total population of existing engines as in the subset with parent company information identified, the Agency expects that approximately 82 ($13 \times 16{,}714/2{,}645$) small entities in the existing population of RICE owners would have CSR between 1 and 3 percent under the upper bound cost scenario described earlier in this preamble section.

In addition, because many small entities owning RICE will not be affected because of the exclusion of engines 500 brake HP or less, the percentage of all small companies owning RICE that are affected by the final rule is even smaller. Based on the proportion of engines in the population database that are greater than 500 brake HP and are not backup units (16,714/26,832, or 62.3 percent) and assuming that small companies own the same proportion of small engines (500 brake HP or less) as they do of engines greater than 500 brake HP, the Agency estimates that 628 small companies own RICE. Of all small companies owning RICE, 13 percent (82/628) are expected to have CSR between 1 and 3 percent under the upper bound cost scenario described earlier in this preamble section and in the economic impact analysis report. If the percentage of RICE owned by small companies that are located at major sources is the same as the engine population overall (40 percent), about 5 percent of small

companies owning RICE would be expected to have CSR greater than 1 percent.

The median profit margin for the industries in our analysis is approximately 2 to 7 percent. Therefore, based on this median profit margin data, it seems reasonable to consider the number of small firms with CSR above 3 percent in screening for significant economic impacts on small businesses.

This screening analysis shows that none of the small entities in the population database have impacts greater than 3 percent and two small firms that we were able to analyze with the available data have impacts between 1 and 3 percent even under the upper bound cost scenario described earlier in this preamble section and in the economic impact analysis report.

Section II.A also states that new 4SRB engines will be affected by today's action. For new sources, it can be reasonably assumed that the investment decision to purchase a new engine may be slightly altered as a result of the final rule. In fact, as shown in section 6 of the economic impact analysis, for the entire population of affected engines (approximately 20,000 new engines over a 5-year period), 2 fewer engines (0.01 percent) may be purchased due to changes in costs of the engines and market responses to the final rule. It is not possible, however, to determine future investment decisions by the small entities in the affected industries, so we cannot link these 2 engines to any one firm (small or large). Overall, it is very unlikely that a substantial number of small firms who may consider purchasing a new engine will be significantly impacted, because the decision to purchase new engines is not altered to a large extent. In addition to this consideration of costs on some firms attributable to the final rule, we note the final rule is likely to increase revenues for many small firms, including those not regulated by the final rule, due to a predictable increase in prices of natural gas in the industry. An increase in natural gas prices is expected since the compliance costs of today's action will lead to market adjustments such as decreased output, thereby leading to increased prices. Concurrent with this increase in natural gas prices will be some increase in revenues for those small firms in affected industries that are not subject to this action, for they experience revenues due to the increased natural gas prices without bearing any of the compliance costs.

Although the final rule will not have a significant economic impact on a substantial number of small entities, we nonetheless have tried to reduce the impact of the final rule on small entities. In the final rule, we are applying the minimum level of control allowed by the CAA (*i.e.*, the MACT floor), and the minimum level of monitoring, recordkeeping, and reporting by affected sources. In addition, as mentioned in section II of the preamble, new RICE units with capacities 500 brake HP or less and those that operate as emergency and limited use units are not covered by the final rule, provisions that should greatly reduce the level of small entity impacts.

D. Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, we generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any 1 year. Before promulgating a rule for which a written statement is needed, section 205 of the UMRA generally requires us to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows us to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before we establish any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, we must develop a small government agency plan under section 203 of the UMRA. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that the final rule contains a Federal mandate that will result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. Accordingly, we have prepared a written statement under section 202 of the UMRA which is summarized below. The written statement is in the docket.

Statutory Authority

As discussed previously in this preamble, the statutory authority for the final rule is section 112 of the CAA. Section 112(b) lists the 189 chemicals, compounds, or groups of chemicals deemed by Congress to be HAP. These toxic air pollutants are to be regulated by NESHAP.

Section 112(d) of the CAA directs us to develop NESHAP based on MACT which require existing and new major sources to control emissions of HAP. These NESHAP apply to all stationary RICE located at major sources of HAP emissions, however, only certain existing and new or reconstructed stationary RICE have substantive regulatory requirements.

In compliance with section 205(a), we identified and considered a reasonable number of regulatory alternatives. The regulatory alternative upon which the rule is based represents the MACT floor for stationary RICE and, as a result, it is the least costly and least burdensome alternative.

Social Costs and Benefits

The RIA prepared for the final rule, including the Agency's assessment of costs and benefits, is detailed in the "Regulatory Impact Analysis for the Final RICE NESHAP" in the docket. Based on estimated compliance costs on all sources associated with the final rule and the predicted change in prices and production in the affected industries, the estimated social costs of the final rule are $248 million (1998$).

It is estimated that 5 years after implementation of the final rule, HAP will be reduced by 5,600 tpy due to reductions in formaldehyde, acetaldehyde, acrolein, methanol and other HAP from existing and new stationary RICE. Formaldehyde and acetaldehyde have been classified as "probable human carcinogens." Acrolein, methanol and the other HAP are not considered carcinogenic, but produce several other toxic effects. The final rule will also achieve reductions in 234,400 tons of CO, approximately 167,900 tons of NO_X per year, and approximately 3,700 tons of PM per year. Exposure to CO can effect the cardiovascular system and the central nervous system. Emissions of NO_X can transform into PM, which can result in fatalities and many respiratory problems

(such as asthma or bronchitis); and NO_X can also transform into ozone causing several respiratory problems to affected populations.

At the present time, the Agency cannot provide a monetary estimate for the benefits associated with the reductions in HAP and CO. For NO_X and PM, we estimated the benefits associated with health effects of PM directly and secondary PM that is formed from NO_X, but were unable to quantify all categories of benefits of NO_X (particularly those associated with ecosystem and environmental effects). Unquantified benefits are noted with "B" in the estimates presented below. Total monetized benefits are approximately $280 million + B (1998$). These monetized benefits should be considered along with the many categories of benefits that we are unable to place a dollar value on to consider the total benefits of the final rule.

Future and Disproportionate Costs

The UMRA requires that we estimate, where accurate estimation is reasonably feasible, future compliance costs imposed by the rule and any disproportionate budgetary effects. Our estimates of the future compliance costs of the final rule are discussed previously in this preamble.

We do not feel that there will be any disproportionate budgetary effects of the final rule on any particular areas of the country, State or local governments, types of communities (*e.g.*, urban, rural), or particular industry segments.

Effects on the National Economy

The UMRA requires that we estimate the effect of the final rule on the national economy. To the extent feasible, we must estimate the effect on productivity, economic growth, full employment, creation of productive jobs, and international competitiveness of the U.S. goods and services if we determine that accurate estimates are reasonably feasible and that such effect is relevant and material.

The nationwide economic impact of the final rule is presented in the "Regulatory Impact Analysis for RICE NESHAP" in the docket. This analysis provides estimates of the effect of the final rule on most of the categories mentioned above. The results of the economic impact analysis are summarized previously in this preamble.

Consultation With Government Officials

The UMRA requires that we describe the extent of our prior consultation with affected State, local, and tribal officials, summarize the officials' comments or concerns, and summarize our response to those comments or concerns. In addition, section 203 of UMRA requires that we develop a plan for informing and advising small governments that may be significantly or uniquely impacted by a proposal. Although the final rule does not affect any State, local, or tribal governments, we have consulted with State and local air pollution control officials. We also have held meetings on the final rule with many of the stakeholders from numerous individual companies, environmental groups, consultants and vendors, labor unions, and other interested parties. We have added materials to the docket to document these meetings.

In addition, we have determined that the final rule contains no regulatory requirements that might significantly or uniquely affect small governments. Therefore, today's rule is not subject to the requirements of section 203 of the UMRA.

E. Executive Order 13132: Federalism

Executive Order 13132 (64 FR 43255, August 10, 1999) requires us to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" are defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

The final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. The final rule primarily affects private industry, and does not impose significant economic costs on State or local governments. Thus, Executive Order 13132 does not apply to the final rule.

Although not required by Executive Order 13132, we consulted with representatives of State and local governments to enable them to provide meaningful and timely input into the development of the final rule. This consultation took place during the ICCR committee meetings where members representing State and local governments participated in developing recommendations for EPA's combustion-related rules, including the final rule. The concerns raised by representatives of State and local governments were considered during the development of the final rule.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175 (65 FR 67249, November 6, 2000) requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." "Policies that have tribal implications" is defined in the Executive Order to include regulations that have "substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes."

The final rule does not have tribal implications. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175. Thus, Executive Order 13175 does not apply to the final rule.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that we have reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, we must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives.

We interpret Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The final rule is not subject to Executive Order 13045 because it is based on technology performance and not on health or safety risks.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

The final rule is not a "significant energy action" as defined in Executive Order 13211 (66 FR 28355, May 22, 2001) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. The basis for this determination is provided below.

The Regulatory Impact Analysis (RIA) estimates changes in prices and production levels for all energy markets (*i.e.*, petroleum, natural gas, electricity, and coal). We also estimate how changes in the energy markets will impact other users of energy, such as manufacturing markets and residential, industrial and commercial consumers of energy. The results of the economic impact analysis for the final rule are shown for 2005, for this is the year in which full implementation of the final rule is expected to occur. These results show that there will be minimal changes in price, if any, for most energy products affected by implementation of the final rule. Only a slight price increase (about 0.008 percent to 0.04 percent) may occur in three of the energy sectors: Petroleum, electricity, and coal products nationwide; and approximately a three-tenths of one percent (*i.e.*, 0.30 percent) change in natural gas prices. The change in energy costs associated with the final rule, however, represents only 0.08 percent of expected annual energy expenditures by residential consumers in 2005, a 0.02 percent change for transportation consumers of energy, and about 0.07 percent of energy expenditures in the commercial sector. In addition, no discernable impact on exports or imports of energy products is expected. Therefore, the impacts on energy markets and users will be relatively small nationwide as a result of implementation of the final rule. In addition, as is discussed in previous sections of this preamble, the economic analysis for RICE assumed that all existing 4SRB engines and all new engines were located at major HAP emission sources and are required to install controls. However, we anticipate that at least 60 percent of the stationary RICE will be located at area sources which are not affected by the final rule. Therefore, the economic impacts on the energy sector as described above would be reduced.

Therefore, we conclude that the final rule when implemented will not have a significant adverse effect on the supply, distribution, or use of energy.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Pub. L. 104–113; 15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

The final rule involves technical standards. The EPA cites the following methods in the final rule: EPA Methods 1, 1A, 3A, 3B, 4, 10 of 40 CFR part 60, appendix A; EPA Methods 320 and 323 of 40 CFR part 63, appendix A; and PS 3, and PS 4A, of 40 CFR part 60, appendix B. Consistent with the NTTAA, EPA conducted searches to identify voluntary consensus standards in addition to these EPA methods/performance specifications. No applicable voluntary consensus standards were identified for EPA Methods 1A, PS 3, and PS 4A. The search and review results have been documented and are placed in the docket (Docket ID Nos. OAR–2002–0059 and A–95–35) for the final rule.

Two voluntary consensus standards were identified as acceptable alternatives to the EPA methods specified in the final rule. One voluntary consensus standard, ASTM D6522–00 "Standard Test Method for the Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers and Process Heaters Using Portable Analyzers," is cited in the final rule as an acceptable alternative to EPA Methods 3A and 10 for identifying carbon monoxide and oxygen concentrations for the final rule when the fuel is natural gas.

The voluntary consensus standard ASTM D6348–03, "Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy," is an acceptable alternative to EPA Method 320 for formaldehyde measurement provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130.

In addition to the voluntary consensus standards EPA uses in the final rule, the search for emissions measurement procedures identified six other voluntary consensus standards. The EPA determined that five of these six standards identified for measuring emissions of the HAP or surrogates subject to emission standards in the final rule were impractical alternatives to EPA test methods/performance specifications for the purposes of the final rule. Therefore, the EPA does not intend to adopt these standards. The reasons for the determinations of these five methods are discussed below.

The voluntary consensus standard ASTM D3154–00, "Standard Method for Average Velocity in a Duct (Pitot Tube Method)," is impractical as an alternative to EPA Methods 1, 3B, and 4 for the purposes of the final rule since the standard appears to lack in quality control and quality assurance requirements. Specifically, ASTM D3154–00 does not include the following: (1) Proof that openings of standard pitot tube have not plugged during the test; (2) if differential pressure gauges other than inclined manometers (*e.g.*, magnehelic gauges) are used, their calibration must be checked after each test series; and (3) the frequency and validity range for calibration of the temperature sensors.

The voluntary consensus standard, CAN/CSA Z223.2–M86(1986), "Method for the Continuous Measurement of Oxygen, Carbon Dioxide, Carbon Monoxide, Sulphur Dioxide, and Oxides of Nitrogen in Enclosed Combustion Flue Gas Streams," is unacceptable as a substitute for EPA Method 3A since it does not include quantitative specifications for measurement system performance, most notably the calibration procedures and instrument performance characteristics. The instrument performance characteristics that are provided are nonmandatory and also do not provide the same level of quality assurance as the EPA methods. For example, the zero and span/calibration drift is only checked weekly, whereas the EPA methods requires drift checks after each run.

Two very similar standards, ASTM D5835–95, "Standard Practice for Sampling Stationary Source Emissions for Automated Determination of Gas Concentration," and ISO 10396:1993, "Stationary Source Emissions: Sampling for the Automated Determination of Gas Concentrations," are impractical alternatives to EPA Method 3A for the purposes of the final rule because they

lack in detail and quality assurance/quality control requirements. Specifically, these two standards do not include the following: (1) Sensitivity of the method; (2) acceptable levels of analyzer calibration error; (3) acceptable levels of sampling system bias; (4) zero drift and calibration drift limits, time span, and required testing frequency; (5) a method to test the interference response of the analyzer; (6) procedures to determine the minimum sampling time per run and minimum measurement time; and (7) specifications for data recorders, in terms of resolution (all types) and recording intervals (digital and analog recorders, only).

The voluntary consensus standard ISO 12039:2001, "Stationary Source Emissions—Determination of Carbon Monoxide, Carbon Dioxide, and Oxygen—Automated Methods," is not acceptable as an alternative to EPA Method 3A. This ISO standard is similar to EPA Method 3A, but is missing some key features. In terms of sampling, the hardware required by ISO 12039:2001 does not include a 3-way calibration valve assembly or equivalent to block the sample gas flow while calibration gases are introduced. In its calibration procedures, ISO 12039:2001 only specifies a two-point calibration while EPA Method 3A specifies a three-point calibration. Also, ISO 12039:2001 does not specify performance criteria for calibration error, calibration drift, or sampling system bias tests as in the EPA method, although checks of these quality control features are required by the ISO standard.

One of the six voluntary consensus standards identified in this search, ASME/BSR MFC 13M, "Flow Measurement by Velocity Traverse" (for EPA Method 2 and possibly 1), was not available at the time the review was conducted for the purposes of the final rule because it was under development by a voluntary consensus body.

Tables 4, 5, and 6 to 40 CFR part 60, subpart ZZZZ, list the EPA testing methods included in the final rule. Under §§ 63.7(f) and 63.8(f) of subpart A of the General Provisions, a source may apply to EPA for permission to use alternative test methods or alternative monitoring requirements in place of any of the EPA testing methods, performance specifications, or procedures.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. section 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing today's final rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the comptroller General of the United States prior to publication of the rule in the **Federal Register**. This action is a "major rule" as defined by 5 U.S.C. 804(2). The final rule will be effective on August 16, 2004.

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: February 26, 2004.

Michael O. Leavitt,

Administrator.

■ For the reasons set out in the preamble, title 40, chapter I, part 63 of the Code of the Federal Regulations is amended as follows:

PART 63—[AMENDED]

■ 1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

Subpart A—[Amended]

■ 2. Section 63.14 is amended by revising paragraph (b)(27) to read as follows:

§ 63.14 Incorporation by reference.

* * * * *

(b) * * *

(27) ASTM D6522–00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IBR approved for § 63.9307(c)(2) and Table 4 to Subpart ZZZZ of part 63.

* * * * *

■ 3. Part 63 is amended by adding subpart ZZZZ to read as follows:

Subpart ZZZZ—National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Sec.

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Tables to Subpart ZZZZ of Part 63

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Table 1b to Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE
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Table 2b to Subpart ZZZZ of Part 63—Operating Limitations for New and Reconstructed Lean Burn and Compression Ignition Stationary RICE
Table 3 to Subpart ZZZZ of Part 63—Subsequent Performance Tests

Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests
Table 5 to Subpart ZZZZ of Part 63—Initial Compliance with Emission Limitations and Operating Limitations
Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance with Emission Limitations and Operating Limitations
Table 7 to Subpart ZZZZ of Part 63—Requirements for Reports
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Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What This Subpart Covers

§ 63.6580 What is the purpose of subpart ZZZZ?

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

§ 63.6585 Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

§ 63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE with a site-rating of more than 500 brake horsepower located at a major source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) *Existing stationary RICE.* A stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002. A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) *New stationary RICE.* A stationary RICE is new if you commenced construction of the stationary RICE on or after December 19, 2002.

(3) *Reconstructed stationary RICE.* A stationary RICE is reconstructed if you meet the definition of reconstruction in § 63.2 and reconstruction is commenced on or after December 19, 2002.

(b) *Stationary RICE subject to limited requirements.* (1) An affected source which meets either of the criteria in paragraph (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of § 63.6645(d).

(i) The stationary RICE is a new or reconstructed emergency stationary RICE; or

(ii) The stationary RICE is a new or reconstructed limited use stationary RICE.

(2) A new or reconstructed stationary RICE which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of § 63.6645(d) and the requirements of §§ 63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.

(3) A stationary RICE which is an existing spark ignition 2 stroke lean burn (2SLB) stationary RICE, an existing spark ignition 4 stroke lean burn (4SLB) stationary RICE, an existing compression ignition (CI) stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, does not have to meet the requirements of this subpart and of subpart A of this part. No initial notification is necessary.

§ 63.6595 When do I have to comply with this subpart?

(a) *Affected sources.* (1) If you have an existing stationary RICE, you must comply with the applicable emission limitations and operating limitations no later than June 15, 2007.

(2) If you start up your new or reconstructed stationary RICE before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.

(3) If you start up your new or reconstructed stationary RICE after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(b) *Area sources that become major sources.* If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.

(1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.

(2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with this subpart within 3 years after your area source becomes a major source of HAP.

(c) If you own or operate an affected source, you must meet the applicable notification requirements in § 63.6645 and in 40 CFR part 63, subpart A.

Emission and Operating Limitations

§ 63.6600 What emission limitations and operating limitations must I meet?

(a) If you own or operate an existing, new, or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE located at a major source of HAP emissions, you must comply with the emission limitations in Table 1a of this subpart and the operating limitations in Table 1b of this subpart which apply to you.

(b) If you own or operate a new or reconstructed 2SLB or 4SLB stationary RICE or a new or reconstructed CI stationary RICE located at a major source of HAP emissions, you must comply with the emission limitations in Table 2a of this subpart and the operating limitations in Table 2b of this subpart which apply to you.

(c) If you own or operate: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, or an existing CI stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE, you do not need to

comply with the emission limitations in Tables 1a and 2a of this subpart or operating limitations in Tables 1b and 2b of this subpart.

General Compliance Requirements

§ 63.6605 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times, except during periods of startup, shutdown, and malfunction.

(b) If you must comply with emission limitations and operating limitations, you must operate and maintain your stationary RICE, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at all times, including during startup, shutdown, and malfunction.

Testing and Initial Compliance Requirements

§ 63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations?

(a) You must conduct the initial performance test or other initial compliance demonstrations in Table 4 of this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in § 63.6595 and according to the provisions in § 63.7(a)(2).

(b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

(c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

(d) An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (d)(1) through (5) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

(5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

§ 63.6615 When must I conduct subsequent performance tests?

If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this subpart.

§ 63.6620 What performance tests and other procedures must I use?

(a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.

(b) Each performance test must be conducted according to the requirements in § 63.7(e)(1) and under the specific conditions that this subpart specifies in Table 4. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

(c) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 63.7(e)(1).

(d) You must conduct three separate test runs for each performance test required in this section, as specified in § 63.7(e)(3). Each test run must last at least 1 hour.

(e)(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \qquad \text{(Eq. 1)}$$

Where:

C_i = concentration of CO or formaldehyde at the control device inlet,

C_o = concentration of CO or formaldehyde at the control device outlet, and

R = percent reduction of CO or formaldehyde emissions.

(2) You must normalize the carbon monoxide (CO) or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO_2). If pollutant concentrations are to be corrected to 15 percent oxygen and CO_2 concentration is measured in lieu of oxygen concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

(i) Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, section 5.2, and the following equation:

$$F_o = \frac{0.209\ F_d}{F_c} \qquad \text{(Eq. 2)}$$

Where:

F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm^3/J (dscf/10^6 Btu).

F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm^3/J (dscf/10^6 Btu).

(ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent oxygen, as follows:

$$X_{co_2} = \frac{5.9}{F_o} \qquad \text{(Eq. 3)}$$

Where:

X_{co2} = CO_2 correction factor, percent.

5.9 = 20.9 percent O_2 − 15 percent O_2, the defined O_2 correction value, percent.

(iii) Calculate the NO_X and SO_2 gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{adj} = C_d \frac{X_{co_2}}{\%CO_2} \qquad \text{(Eq. 4)}$$

Where:

$\%CO_2$ = Measured CO_2 concentration measured, dry basis, percent.

(f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or

for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.

(g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.

(1) Identification of the specific parameters you propose to use as operating limitations;

(2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;

(3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.

(1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally (*e.g.*, operator adjustment, automatic controller adjustment, *etc.*) or unintentionally (*e.g.*, wear and tear, error, *etc.*) on a routine basis or over time;

(2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;

(3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;

(4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;

(5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;

(6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and

(7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.

(i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

§ 63.6625 What are my monitoring, installation, operation, and maintenance requirements?

(a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either oxygen or CO_2 at both the inlet and the outlet of the control device according to the requirements in paragraphs (a)(1) through (4) of this section.

(1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.

(2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in § 63.8 and according to the applicable performance specifications of 40 CFR part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.

(3) As specified in § 63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.

(4) The CEMS data must be reduced as specified in § 63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO_2 concentration.

(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in § 63.8.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.

§ 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?

(a) You must demonstrate initial compliance with each emission and operating limitation that applies to you according to Table 5 of this subpart.

(b) During the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.

(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.6645.

Continuous Compliance Requirements

§ 63.6635 How do I monitor and collect data to demonstrate continuous compliance?

(a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.

(b) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously at all times that the stationary RICE is operating.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

§ 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?

(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b and Tables 2a and 2b of this subpart that apply to you according to methods specified in Table 6 of this subpart.

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b and Tables 2a and 2b of this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in § 63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

(c) During periods of startup, shutdown, and malfunction, you must operate in accordance with your startup, shutdown, and malfunction plan.

(d) Consistent with §§ 63.6(e) and 63.7(e)(1), deviations from the emission or operating limitations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the startup, shutdown, and malfunction plan. For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations.

Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR § 94.11(a).

(e) You must also report each instance in which you did not meet the requirements in Table 8 of this subpart that apply to you. If you own or operate an existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing CI stationary RICE, an existing emergency stationary RICE, an existing limited use emergency stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you do not need to comply with the requirements in Table 8 of this subpart. If you own or operate a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE, you do not need to comply with the requirements in Table 8 of this subpart, except for the initial notification requirements.

Notifications, Reports, and Records

§ 63.6645 What notifications must I submit and when?

(a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified.

(b) As specified in § 63.9(b)(2), if you start up your stationary RICE before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004.

(c) If you start up your new or reconstructed stationary RICE on or after August 16, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(d) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with § 63.6590(b), your notification should include the information in § 63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE).

(e) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in § 63.7(b)(1).

(f) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 5 of this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration required in Table 5 of this subpart that includes a performance test conducted according to the requirements in Table 4 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to § 63.10(d)(2).

§ 63.6650 What reports must I submit and when?

(a) You must submit each report in Table 7 of this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.

(1) The first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in § 63.6595.

(2) The first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in § 63.6595.

(3) Each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a startup, shutdown, or malfunction during the reporting period, the compliance report must include the information in § 63.10(d)(5)(i).

(5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.

(6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in § 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

(d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.

(1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(e) For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.

(1) The date and time that each malfunction started and stopped.

(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out-of-control, including the information in § 63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.

(8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.

(9) A brief description of the stationary RICE.

(10) A brief description of the CMS.

(11) The date of the latest CMS certification or audit.

(12) A description of any changes in CMS, processes, or controls since the last reporting period.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 7 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.

(1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.

(2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.

(3) Any problems or errors suspected with the meters.

§ 63.6655 What records must I keep?

(a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(3), (b)(1) through (b)(3) and (c) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in § 63.10(b)(2)(xiv).

(2) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests and performance evaluations as required in § 63.10(b)(2)(viii).

(b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.

(1) Records described in § 63.10(b)(2)(vi) through (xi).

(2) Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in § 63.8(d)(3).

(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in § 63.8(f)(6)(i), if applicable.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

§ 63.6660 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review according to § 63.10(b)(1).

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record readily accessible in hard copy or electronic form on-site for at least 2 years after the date of each occurrence, measurement,

maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records off-site for the remaining 3 years.

Other Requirements and Information

§ 63.6665 What parts of the General Provisions apply to me?

Table 8 of this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you. If you own or operate an existing 2SLB, an existing 4SLB stationary RICE, an existing CI stationary RICE, an existing stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE, you do not need to comply with any of the requirements of the General Provisions. If you own or operate a new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE, you do not need to comply with the requirements in the General Provisions except for the initial notification requirements.

§ 63.6670 Who implements and enforces this subpart?

(a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out whether this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are:

(1) Approval of alternatives to the non-opacity emission limitations and operating limitations in § 63.6600 under § 63.6(g).

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

(5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in § 63.6610(b).

§ 63.6675 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act (CAA); in 40 CFR 63.2, the General Provisions of this part; and in this section as follows:

Area source means any stationary source of HAP that is not a major source as defined in part 63.

Associated equipment as used in this subpart and as referred to in section 112(n)(4) of the CAA, means equipment associated with an oil or natural gas exploration or production well, and includes all equipment from the well bore to the point of custody transfer, except glycol dehydration units, storage vessels with potential for flash emissions, combustion turbines, and stationary RICE.

CAA means the Clean Air Act (42 U.S.C. 7401 *et seq.*, as amended by Public Law 101–549, 104 Stat. 2399).

Compression ignition engine means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition, including diesel engines, dual-fuel engines, and engines that are not spark ignition.

Custody transfer means the transfer of hydrocarbon liquids or natural gas: After processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless or whether or not such failure is permitted by this subpart.

(4) Fails to conform to any provision of the applicable startup, shutdown, or malfunction plan, or to satisfy the general duty to minimize emissions established by § 63.6(e)(1)(i).

Diesel engine means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition. This process is also known as compression ignition.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is fuel oil number 2.

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO_2.

Dual-fuel engine means any stationary RICE in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel.

Emergency stationary RICE means any stationary RICE that operates in an emergency situation. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc. Emergency stationary RICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance. Emergency stationary RICE may also operate an additional 50 hours per year in non-emergency situations.

Four-stroke engine means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

Gaseous fuel means a material used for combustion which is in the gaseous state at standard atmospheric temperature and pressure conditions.

Glycol dehydration unit means a device in which a liquid glycol

(including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes "rich" glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The "lean" glycol is then recycled.

Hazardous air pollutants (HAP) means any air pollutants listed in or pursuant to section 112(b) of the CAA.

ISO standard day conditions means 288 degrees Kelvin (15 degrees Celsius), 60 percent relative humidity and 101.3 kilopascals pressure.

Landfill gas means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO_2.

Lean burn engine means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

Limited use stationary RICE means any stationary RICE that operates less than 100 hours per year.

Liquefied petroleum gas means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining of natural gas production.

Liquid fuel means any fuel in liquid form at standard temperature and pressure, including but not limited to diesel, residual/crude oil, kerosene/naphtha (jet fuel), and gasoline.

Major Source, as used in this subpart, shall have the same meaning as in § 63.2, except that:

(1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;

(2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in § 63.1271 of subpart HHH of this part, shall not be aggregated;

(3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and

(4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in § 63.1271 of subpart HHH of this part, shall not be aggregated.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Natural gas means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. May be field or pipeline quality.

Non-selective catalytic reduction (NSCR) means an add-on catalytic nitrogen oxides (NO_X) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO_X, CO, and volatile organic compounds (VOC) into CO_2, nitrogen, and water.

Oil and gas production facility as used in this subpart means any grouping of equipment where hydrocarbon liquids are processed, upgraded (*i.e.,* remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For purposes of a major source determination, facility (including a building, structure, or installation) means oil and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility. Examples of facilities in the oil and natural gas production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

Oxidation catalyst means an add-on catalytic control device that controls CO and VOC by oxidation.

Peaking unit or engine means any standby engine intended for use during periods of high demand that are not emergencies.

Percent load means the fractional power of an engine compared to its maximum manufacturer's design capacity at engine site conditions. Percent load may range between 0 percent to above 100 percent.

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. For oil and natural gas production facilities subject to subpart HH of this part, the potential to emit provisions in § 63.760(a) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to § 63.1270(a)(1) and the maximum annual throughput for transmission facilities may be determined according to § 63.1270(a)(2).

Production field facility means those oil and gas production facilities located prior to the point of custody transfer.

Production well means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C_3H_8.

Responsible official means responsible official as defined in 40 CFR 70.2.

Rich burn engine means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for NO_X (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at

full load conditions is less than or equal to 2 percent.

Site-rated HP means the maximum manufacturer's design capacity at engine site conditions.

Spark ignition engine means a type of engine in which a compressed air/fuel mixture is ignited by a timed electric spark generated by a spark plug.

Stationary reciprocating internal combustion engine (RICE) means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a nonroad engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

Stationary RICE test cell/stand means an engine test cell/stand, as defined in subpart PPPPP of this part, that tests stationary RICE.

Stoichiometric means the theoretical air-to-fuel ratio required for complete combustion.

Storage vessel with the potential for flash emissions means any storage vessel that contains a hydrocarbon liquid with a stock tank gas-to-oil ratio equal to or greater than 0.31 cubic meters per liter and an American Petroleum Institute gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.

Subpart means 40 CFR part 63, subpart ZZZZ.

Surface site means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

Two-stroke engine means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

Tables to Subpart ZZZZ of Part 63

As stated in §§ 63.6600 and 63.6640, you must comply with the following emission limitations for existing, new and reconstructed 4SRB stationary RICE at 100 percent load plus or minus 10 percent:

TABLE 1a TO SUBPART ZZZZ OF PART 63.—EMISSION LIMITATIONS FOR EXISTING, NEW, AND RECONSTRUCTED SPARK IGNITION, 4SRB STATIONARY RICE

For each . . .	You must meet *one* of the following emission limitations . . .
1. 4SRB RICE	a. Reduce formaldehyde emissions by 76 percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007, or b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2.

As stated in §§ 63.6600, 63.6630 and 63.6640, you must comply with the following operating emission limitations for existing, new and reconstructed 4SRB stationary RICE:

TABLE 1B TO SUBPART ZZZZ OF PART 63.—OPERATING LIMITATIONS FOR EXISTING, NEW, AND RECONSTRUCTED SPARK IGNITION, 4SRB STATIONARY RICE

For each . . .	You must meet the following emission limitation . . .
1. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2 and using NSCR.	a. Maintain your catalyst so that the pressure drop across the catalyst does not change by more than two inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test; and b. Maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 750°F and less than or equal to 1250°F.
2. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent if applicable) and not using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2 and not using NSCR.	Comply with any operating limitations approved by the Administrator.

As stated in §§ 63.6600 and 63.6640, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE at 100 percent load plus or minus 10 percent:

TABLE 2a TO SUBPART ZZZZ OF PART 63.—EMISSION LIMITATIONS FOR NEW AND RECONSTRUCTED LEAN BURN AND COMPRESSION IGNITION STATIONARY RICE

For each . . .	You must meet the following emission limitation . . .
1. 2SLB stationary RICE	a. Reduce CO emissions by 58 percent or more; or b. Limit concentration of formaldehyde in the stationary RICE exhaust to 12 ppmvd or less at 15 percent O_2. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may limit concentration of formaldehyde to 17 ppmvd or less at 15 percent O_2 until June 15, 2007.
2. 4SLB stationary RICE	a. Reduce CO emissions by 93 percent or more; or b. Limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O_2.
3. CI stationary RICE	a. Reduce CO emissions by 70 percent or more; or b. Limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent O_2.

As stated in §§ 63.6600, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE:

TABLE 2b TO SUBPART ZZZZ OF PART 63.—OPERATING LIMITATIONS FOR NEW AND RECONSTRUCTED LEAN BURN AND COMPRESSION IGNITION STATIONARY RICE

For each . . .	You must meet the following operating limitation . . .
1. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst.	a. Maintain your catalyst so that the pressure drop across the catalyst does not change by more than two inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. Maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450°F and less than or equal to 1350°F.
2. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and not using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst.	Comply with any operating limitations approved by the Administrator.

As stated in §§ 63.6615 and 63.6620, you must comply with the following subsequent performance test requirements:

TABLE 3 TO SUBPART ZZZZ OF PART 63.—SUBSEQUENT PERFORMANCE TESTS

For each . . .	Complying with the requirement to . . .	You must . . .
1. 2SLB and 4SLB stationary RICE and CI stationary RICE.	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually.[1]
2. 4SRB stationary RICE with a brake horsepower ≥5,000.	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually.[1]
3. Stationary RICE (all stationary RICE subcategories and all brake horsepower ratings).	Limit the concentration of formaldehyde in the stationary RICE exhaust.	Conduct subsequent performance tests semiannually.[1]

[1] After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

As stated in §§ 63.6610, 63.6620, and 63.6640, you must comply with the following requirements for performance tests:

TABLE 4 TO SUBPART ZZZZ OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
1. 2SLB and 4SLB stationary RICE and CI stationary RICE.	a. Reduce CO emissions ..	i. Measure the O_2 at the inlet and outlet of the control device; and	(1) Portable CO and O_2 analyzer.	(a) Using ASTM D6522–00[1] (incorporated by reference, see § 63.14). Measurements to determine O_2 must be made at the same time as the measurements for CO concentration.

TABLE 4 TO SUBPART ZZZZ OF PART 63.—REQUIREMENTS FOR PERFORMANCE TESTS—Continued

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
		ii. Measure the CO at the inlet and the outlet of the control device.	(1) Portable CO and O_2 analyzer.	(a) Using ASTM D6522–00 [1] (incorporated by reference, see § 63.14). The CO concentration must be at 15 percent O_2, dry basis.
2. 4SRB stationary RICE ..	a. Reduce formaldehyde emissions.	i. Select sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60 appendix A § 63.7(d)(1)(i).	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O_2 at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A.	(a) Measurements to determine O_2 concentration must be made at the same time as the measurements for formaldehyde concentration.
		iii. Measure moisture content at the inlet and outlet of the control device; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03.	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
		iv. Measure formaldehyde at the inlet and the outlet of the control device	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03 [2], provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130.	(a) Formaldehyde concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
3. Stationary RICE	a. Limit the concentration of formaldehyde in the stationary RICE exhaust.	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A § 63.7(d)(1)(i).	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O_2 concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A.	(a) Measurements to determine O_2 concentration must be made at the same time and location as the measurements for formaldehyde concentration.
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03.	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
		iv. Measure formaldehyde at the exhaust of the stationary RICE.	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03 [2], provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130.	(a) Formaldehyde concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

[1] You may also use Methods 3A and 10 as options to ASTM–D6522–00. You may obtain a copy of ASTM–D6522–00 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

[2] You may obtain a copy of ASTM–D6348–03 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

As stated in §§ 63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following:

TABLE 5 TO SUBPART ZZZZ OF PART 63.—INITIAL COMPLIANCE WITH EMISSION LIMITATIONS AND OPERATING LIMITATIONS

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
1. 2SLB and 4SLB stationary RICE and CI stationary RICE.	a. Reduce CO emissions and using oxidation catalyst, and using a CPMS.	i. the average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
2. 2SLB and 4SLB stationary RICE and CI stationary RICE.	a. Reduce CO emissions and not using oxidation catalyst.	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in § 63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.
3. 2SLB and 4SLB stationary RICE and CI stationary RICE.	a. Reduce CO emissions, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O_2 or CO_2 at both the inlet and outlet of the oxidation catalyst according to the requirements in § 63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and iii. The average reduction of CO calculated using § 63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.
4. 4SRB stationary RICE	a. Reduce formaldehyde emissions and using NSCR.	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
5. 4SRB stationary RICE	a. Reduce formaldehyde emissions and not using NSCR.	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in § 63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.
6. Stationary RICE	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR.	i. The average formaldehyde concentration, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.

TABLE 5 TO SUBPART ZZZZ OF PART 63.—INITIAL COMPLIANCE WITH EMISSION LIMITATIONS AND OPERATING LIMITATIONS—Continued

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
7. Stationary RICE	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR.	i. The average formaldehyde concentration, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in § 63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.

As stated in § 63.6640, you must continuously comply with the emissions and operating limitations as required by the following:

TABLE 6 TO SUBPART ZZZZ OF PART 63.—CONTINUOUS COMPLIANCE WITH EMISSION LIMITATIONS AND OPERATING LIMITATIONS

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
1. 2SLB and 4SLB stationary RICE and CI stationary RICE.	a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS.	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved [1]; and ii. Collecting the catalyst inlet temperature data according to § 63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
2. 2SLB and 4SLB stationary RICE and CI stationary RICE.	a. Reduce CO emissions and not using an oxidation catalyst, and using a CPMS.	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved [1]; and ii. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
3. 2SLB and 4SLB stationary RICE and CI stationary RICE.	a. Reduce CO emissions and using a CEMS	i. Collecting the monitoring data according to § 63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction of CO emissions according to § 63.6620; and ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period; and iii. Conducting an annual RATA of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.
4. 4SRB stationary RICE	a. Reduce formaldehyde emissions and using NSCR.	i. Collecting the catalyst inlet temperature data according to § 63.6625(b); and ii. Reducing these data to 4-hour rolling averages; and iii. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and

TABLE 6 TO SUBPART ZZZZ OF PART 63.—CONTINUOUS COMPLIANCE WITH EMISSION LIMITATIONS AND OPERATING LIMITATIONS—Continued

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		iv. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
5. 4SRB stationary RICE	a. Reduce formaldehyde emissions and not using NSCR.	i. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and ii. reducing these data to 4-hour rolling averages; iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
6. 4SRB stationary RICE with a brake horsepower ≥5,000.	Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved [1].
7. Stationary RICE	Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR.	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit [1]; and ii. Collecting the catalyst inlet temperature data according to § 63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
8. Stationary RICE	Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR.	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit [1]; and ii. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and ii. Reducing these data to 4-hour rolling averages; and iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

[1] After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

As stated in § 63.6650, you must comply with the following requirements for reports:

TABLE 7 TO SUBPART ZZZZ OF PART 63.—REQUIREMENTS FOR REPORTS

You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in § 63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or	i. Semiannually according to the requirements in § 63.6650(b).

TABLE 7 TO SUBPART ZZZZ OF PART 63.—REQUIREMENTS FOR REPORTS—Continued

You must submit a(n)	The report must contain . . .	You must submit the report . . .
	b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in § 63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in § 63.8(c)(7), the information in § 63.6650(e); or	i. Semiannually according to the requirements in § 63.6650(b).
	c. If you had a startup, shutdown or malfunction during the reporting period, the information in § 63.10(d)(5)(i).	i. Semiannually according to the requirements in § 63.6650(b).
2. An immediate startup, shutdown, and malfunction report if actions addressing the startup, shutdown, or malfunction were inconsistent with your startup, shutdown, or malfunction plan during the reporting period.	a. Actions taken for the event; and	i. By fax or telephone within 2 working days after starting actions inconsistent with the plan.
	b. The information in § 63.10(d)(5)(ii).	i. By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authorities. (§ 63.10(d)(5)(ii))
3. Report	a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of the gross heat input on an annual basis; and	i. Annually, according to the requirements in § 63.6650.
	b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and	i. See item 3.a.i.
	c. Any problems or errors suspected with the meters.	i. See item 3.a.i.

As stated in § 63.6665, you must comply with the following applicable general provisions:

TABLE 8 TO SUBPART ZZZZ OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART ZZZZ

General provisions citation	Subject of citation	Applies to subpart	Explanation
§ 63.1	General applicability of the General Provisions.	Yes.	
§ 63.2	Definitions	Yes	Additional terms defined in § 63.6675.
§ 63.3	Units and abbreviations	Yes.	
§ 63.4	Prohibited activities and circumvention	Yes.	
§ 63.5	Construction and reconstruction	Yes.	
§ 63.6(a)	Applicability	Yes.	
§ 63.6(b)(1)–(4)	Compliance dates for new and reconstructed sources.	Yes.	
§ 63.6(b)(5)	Notification	Yes.	
§ 63.6(b)(6)	[Reserved].	.	
§ 63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources.	Yes.	
§ 63.6(c)(1)–(2)	Compliance dates for existing sources	Yes.	
§ 63.6(c)(3)–(4)	[Reserved].	.	
§ 63.6(c)(5)	Compliance dates for existing area sources that become major sources.	Yes.	
§ 63.6(d)	[Reserved].	.	
§ 63.6(e)(1)	Operation and maintenance	Yes.	
§ 63.6(e)(2)	[Reserved].	.	
§ 63.6(e)(3)	Startup, shutdown, and malfunction plan	Yes.	
§ 63.6(f)(1)	Applicability of standards except during startup shutdown malfunction (SSM).	Yes.	
§ 63.6(f)(2)	Methods for determining compliance	Yes.	
§ 63.6(f)(3)	Finding of compliance	Yes.	
§ 63.6(g)(1)–(3)	Use of alternate standard	Yes.	
§ 63.6(h)	Opacity and visible emission standards	No	Subpart ZZZZ does not contain opacity or visible emission standards.
§ 63.6(i)	Compliance extension procedures and criteria.	Yes.	

TABLE 8 TO SUBPART ZZZZ OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART ZZZZ—Continued

General provisions citation	Subject of citation	Applies to subpart	Explanation
§ 63.6(j)	Presidential compliance exemption	Yes.	
§ 63.7(a)(1)–(2)	Performance test dates	Yes	Subpart ZZZZ contains performance test dates at § 63.6610.
§ 63.7(a)(3)	CAA section 114 authority	Yes.	
§ 63.7(b)(1)	Notification of performance test	Yes.	
§ 63.7(b)(2)	Notification of rescheduling	Yes.	
§ 63.7(c)	Quality assurance/test plan	Yes.	
§ 63.7(d)	Testing facilities	Yes.	
§ 63.7(e)(1)	Conditions for conducting performance tests.	Yes.	
§ 63.7(e)(2)	Conduct of performance tests and reduction of data.	Yes	Subpart ZZZZ specifies test methods at § 63.6620.
§ 63.7(e)(3)	Test run duration	Yes.	
§ 63.7(e)(4)	Administrator may require other testing under section 114 of the CAA.	Yes.	
§ 63.7(f)	Alternative test method provisions	Yes.	
§ 63.7(g)	Performance test data analysis, recordkeeping, and reporting.	Yes.	
§ 63.7(h)	Waiver of tests	Yes.	
§ 63.8(a)(1)	Applicability of monitoring requirements	Yes	Subpart ZZZZ contains specific requirements for monitoring at § 63.6625.
§ 63.8(a)(2)	Performance specifications	Yes.	
§ 63.8(a)(3)	[Reserved]		
§ 63.8(a)(4)	Monitoring for control devices	No.	
§ 63.8(b)(1)	Monitoring	Yes.	
§ 63.8(b)(2)–(3)	Multiple effluents and multiple monitoring systems.	Yes.	
§ 63.8(c)(1)	Monitoring system operation and maintenance.	Yes.	
§ 63.8(c)(1)(i)	Routine and predictable SSM	Yes.	
§ 63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan.	Yes.	
§ 63.8(c)(1)(iii)	Compliance with operation and maintenance requirements.	Yes.	
§ 63.8(c)(2)–(3)	Monitoring system installation	Yes.	
§ 63.8(c)(4)	Continuous monitoring system (CMS) requirements.	Yes	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).
§ 63.8(c)(5)	COMS minimum procedures	No	Subpart ZZZZ does not require COMS.
§ 63.8(c)(6)–(8)	CMS requirements	Yes	Except that subpart ZZZZ does not require COMS.
§ 63.8(d)	CMS quality control	Yes.	
§ 63.8(e)	CMS performance evaluation	Yes	Except for § 63.8(e)(5)(ii), which applies to COMS.
§ 63.8(f)(1)–(5)	Alternative monitoring method	Yes.	
§ 63.8(f)(6)	Alternative to relative accuracy test	Yes.	
§ 63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§ 63.6635 and 63.6640.
§ 63.9(a)	Applicability and State delegation of notification requirements.	Yes.	
§ 63.9(b)(1)–(5)	Initial notifications	Yes	Except that § 63.9(b)(3) is reserved.
§ 63.9(c)	Request for compliance extension	Yes.	
§ 63.9(d)	Notification of special compliance requirements for new sources.	Yes.	
§ 63.9(e)	Notification of performance test	Yes.	
§ 63.9(f)	Notification of visible emission (VE)/opacity test.	No	Subpart ZZZZ does not contain opacity or VE standards.
§ 63.9(g)(1)	Notification of performance evaluation	Yes.	
§ 63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.
§ 63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded.	Yes	If alternative is in use.
§ 63.9(h)(1)–(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. § 63.9(h)(4) is reserved.
§ 63.9(i)	Adjustment of submittal deadlines	Yes.	
§ 63.9(j)	Change in previous information	Yes.	

TABLE 8 TO SUBPART ZZZZ OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART ZZZZ—Continued

General provisions citation	Subject of citation	Applies to subpart	Explanation
§ 63.10(a)	Administrative provisions for record-keeping/reporting.	Yes.	
§ 63.10(b)(1)	Record retention	Yes.	
§ 63.10(b)(2)(i)–(v)	Records related to SSM	Yes.	
§ 63.10(b)(2)(vi)–(xi)	Records	Yes.	
§ 63.10(b)(2)(xii)	Record when under waiver	Yes.	
§ 63.10(b)(2)(xiii)	Records when using alternative to RATA.	Yes	For CO standard if using RATA alternative.
§ 63.10(b)(2)(xiv)	Records of supporting documentation	Yes.	
§ 63.10(b)(3)	Records of applicability determination	Yes.	
§ 63.10(c)	Additional records for sources using CEMS.	Yes	Except that § 63.10(c)(2)–(4) and (9) are reserved.
§ 63.10(d)(1)	General reporting requirements	Yes.	
§ 63.10(d)(2)	Report of performance test results	Yes.	
§ 63.10(d)(3)	Reporting opacity or VE observations	No	Subpart ZZZZ does not contain opacity or VE standards.
§ 63.10(d)(4)	Progress reports	Yes.	
§ 63.10(d)(5)	Startup, shutdown, and malfunction reports.	Yes.	
§ 63.10(e)(1) and (2)(i)	Additional CMS reports	Yes.	
§ 63.10(e)(2)(ii)	COMS-related report	No	Subpart ZZZZ does not require COMS.
§ 63.10(e)(3)	Excess emission and parameter exceedances reports.	Yes	Except that § 63.10(e)(3)(i)(C) is reserved.
§ 63.10(e)(4)	Reporting COMS data	No	Subpart ZZZZ does not require COMS.
§ 63.10(f)	Waiver for recordkeeping/reporting	Yes.	
§ 63.11	Flares	No.	
§ 63.12	State authority and delegations	Yes.	
§ 63.13	Addresses	Yes.	
§ 63.14	Incorporation by reference	Yes.	
§ 63.15	Availability of information	Yes.	

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