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BUREAU OF ENVIRONMENT
10 McJunkin Road
Nitro, WV 25143-2506

GASTON CAPERTON
GOVERNOR

LAIDLEY ELI MCCOY, PH.D.
COMMISSIONER

July 8, 1996

Ms. Judy Cooper
Director, Administrative Law Division
Office of the Secretary of State
Capitol Complex
Charleston, West Virginia 25305

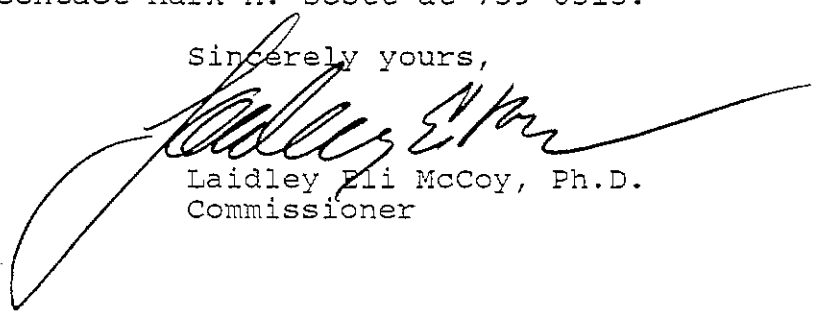
RE: 45CSR34 - "Emission Standards for
Hazardous Air Pollutants"

Dear Ms. Cooper:

This is to advise you that I am giving approval for filing with your office the above-referenced rule as Notice of Public Hearing and Comment Period on a proposed rule.

Your cooperation in this regard is very much appreciated. If you have any questions or require additional information, please feel free to contact Mark A. Scott at 759-0515.

Sincerely yours,


Laidley Eli McCoy, Ph.D.
Commissioner

LEM:cc

Attachment

**BUREAU OF ENVIRONMENT
DIVISION OF ENVIRONMENTAL PROTECTION**

BRIEFING DOCUMENT

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

A. AUTHORITY: W.Va. Code §§22-5-1 et seq.

B. SUMMARY OF RULE:

The current version of 45CSR34 provides authority for the Director to determine and enforce case-by-case MACT standards for major hazardous air pollutant sources in the absence of a federal standard under certain circumstances as required for permit program approval under Title V of the Clean Air Act.

The rule also establishes general provisions for emission standards for hazardous air pollutants (NESHAPs) and other regulatory requirements pursuant to section 112 of the federal Clean Air Act (CAA). The 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. This proposed rule incorporates by reference additional provisions relating to printing and publishing industry, gasoline distribution (stage 1), shipbuilding and ship repair, wood manufacturing operations, petroleum refineries, marine vessel loading operations, and aerospace manufacturing and rework facilities.

C. STATEMENT OF CIRCUMSTANCES WHICH REQUIRE RULE:

This rule in conjunction with existing rule 45CSR15, establishes general provisions for emission standards for hazardous air pollutants and other regulatory requirements promulgated by USEPA as of June 15, 1996, pursuant to section 112 of the federal Clean Air Act, as amended. This rule codifies general procedures and emission standards for certain 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 Clean Air Act, as amended. 45CSR34 incorporates hazardous air pollutant standards codified by USEPA under 40 CFR Part 63 whereas the earlier existing rule for hazardous air pollutants, 45CSR15, primarily incorporates hazardous air pollutant standards promulgated by USEPA under 40 CFR Part 61 prior to amendment of the Clean Air Act. The Director intends to incorporate the additional federal counterpart rules by reference. Promulgation of this rule by the

Legislature is necessary for the State to fulfill its responsibilities under the Clean Air Act, as amended.

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

A federal counterpart to this proposed rule exists. In accordance with the Director's recommendation, and with limited exception, the Office 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:

The Director 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. The Director further finds that this rule is consistent with the requirements of chapter 22 article 1A of the W.Va. Code.

F. CONSULTATION WITH THE ENVIRONMENTAL PROTECTION ADVISORY COUNCIL:

The proposed amendment to this rule will be reviewed by the Council at its meeting on July 17, 1996. Recommendations of the Council and the Director's response to Council's recommendations will be included in the proposed rule filing with the Secretary of State's Office and Legislative Rulemaking Review Committee.

APPENDIX B

FISCAL NOTE FOR PROPOSED RULES

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

Type of Rule: X Legislative Interpretive Procedural

Agency: Office of Air Quality

Address: 1558 Washington Street, East

Charleston, WV 25311-2599

I. Effect of Proposed Rule	Annual		Fiscal Year		
Estimated Total Cost	Increase	Decrease	Current	Next	There- after
	\$ 23,000	\$ -0-	\$ 6,000	\$ 23,000	\$ 25,000
Personal Services	17,000	-0-	4,300	17,000	18,500
Current Expense	6,000	-0-	1,700	6,000	6,500
Repairs and Alterations	-0-	-0-	-0-	-0-	-0-
Equipment	-0-	-0-	-0-	-0-	-0-
Other	-0-	-0-	-0-	-0-	-0-

2. Explanation of above estimates: Most costs anticipated to be incurred in the implementation of federal rules promulgated under 40CFR63 as of June 15, 1996 will be covered under prior budget estimates for implementing Title V of the Clean Air Act, as amended, under 45CSR30 authorized by the Legislature during the 1994 session and approved (interim approval) by the U.S. Environmental Protection Agency by Final Rule issued on November 16, 1995. The program cost estimates in Item 1 reflect only those estimated costs for state implementation of the standards. Staff time representing approximately 0.5 FTE is anticipated for the regulation of these facilities.
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, as amended.

Rule Title: 45 CSR 34 - "Emission Standards for Hazardous Air
Pollutants Pursuant to 40 CFR Part 63"

4. Explanation of Overall Economic Impact of Proposed Rule.

A. Economic Impact on State Government.

Please 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 requirements.

C. Economic Impact on Citizens/Public at Large.

No impact above that resulting from the currently applicable federal requirements.

Date:

July 7, 1976

Signature of Agency Head or Authorized Representative



G. Dale Farley
Chief, Office of Air Quality

FILED

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OFFICE OF WEST VIRGINIA
SECRETARY OF STATE

45CSR34

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

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

§45-34-1. General.

1.1. Scope. - This rule establishes general provisions for national emission standards for hazardous air pollutants (NESHAPS) and other regulatory requirements pursuant to section 112 of the federal Clean Air Act as amended in 1990 (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 (HAP) in or pursuant to section 112(b) of the CAA. It is the intent of the Director to adopt these standards by reference. It is also the intent of the Director to adopt associated reference methods, performance specifications and other test methods which are appended to these standards.

1.2. Authority. - W.Va. Code §§22-5-1 et seq.

1.3. Filing Date. - ~~April 25, 1996~~

1.4. Effective Date. - ~~May 1, 1996~~

1.5. Incorporation by Reference - Federal Counterpart Regulation. The Director has determined that a federal counterpart regulation exists, and in accordance with the Director's recommendation, with limited exception, this rule incorporates by reference, 40 CFR Part 63, effective ~~June 1, 1995~~ June 15, 1996.

§45-34-2. Requirements.

2.1. After the effective date of the state permit program under Title V of the CAA, no person may modify a major source of hazardous air pollutants, unless the Director determines that the maximum achievable control technology emission limitation under this rule for existing sources will be met.

2.2. 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 Director determines that the maximum achievable control technology emission limitation under this rule for new sources will be met.

2.3. After the effective date of the state permit program under Title V of the CAA, the Director 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 Section 112(d) and 112(e) of the CAA.

2.4. 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.

§45-34-3. Definitions.

3.1. "Administrator" ~~shall mean~~ the Administrator of the United States Environmental Protection Agency or his or her designated representative.

3.2. "Director" ~~shall mean~~ the Director of the West Virginia Division of Environmental Protection or ~~his or her designated representative~~ such other person to whom the Director has delegated authority or duties pursuant to W. Va. Code §22-1-6 or §22-1-8.

3.3. "Hazardous air pollutant" ~~shall mean~~ any air pollutant listed pursuant to §112(b) of the CAA as of ~~June 1, 1995~~ June 15, 1996.

§45-34-4. Adoption of Standards.

4.1. The Director hereby adopts and incorporates by reference the provisions of 40 CFR Part 63 including any reference methods, performance specifications and other test methods which are appended to such standards and contained in 40 CFR Part 63 as in effect on ~~June 1, 1995~~ June 15, 1996, for the purposes of implementing a program for national emission standards for hazardous air pollutants for source categories, except as follows:

4.1.a. Section 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. and §§29B-1-1 et seq.

4.1.b. Any provision related to section 112(r) of the CAA.

4.1.c. Section 63.150 is excluded from adoption.

§45-34-5. Director.

5.1. Any and all references in 40 CFR Part 63 to the "Administrator" are amended to be the "Director" except in the following references which shall remain "Administrator."

5.1.a. Part 63.1(a)(2)

5.1.b. Part 63.1(a)(3)

5.1.c. Part 63.1(b)(2)

5.1.d. Part 63.1(c)(2)(ii)

5.1.e. Part 63.2 pertaining to the definition of:

Administrator

Alternative Emission Limitation

Alternative Emission Standard

Alternative Test Method

Approved Permit Program

Equivalent Emission Limitation

Federally Enforceable

Lesser Quantities

Major Source

Performance Audit

Permitting Authority

Regulation Promulgation Schedule

Responsible Official

5.1.f. Part 63.5(b)(4)

5.1.g. Part 63.5(b)(5)

5.1.h. Part 63.6(g)(1)

5.1.i. Part 63.6(g)(3)

5.1.j. Part 63.6(h)(9)

5.1.k. Part 63.7(c)(4)(iii)

5.1.l. Part 63.9(a)(3)

5.1.m. Part 63.9(b)(2)

5.1.n. Part 63.9(b)(3)

5.1.o. Part 63.9(b)(4)

5.1.p. Part 63.9(b)(5)

5.1.q. Part 63.9(c)

5.1.r. Part 63.9(d)

5.1.s. Part 63.9(i), depending upon whether the Administrator or the Director has responsibility for administering the applicable section of the rule.

5.1.t. Part 63.9(j), depending upon whether the Administrator or the Director has responsibility for administering the applicable section of the rule.

5.1.u. Part 63.10(a)(3)

5.1.v. Part 63.10(b)(3)

5.1.w. Part 63.12(b)(1)

5.1.x. Part 63.12(c)

5.1.y. Part 63.13(a)

5.1.z. Part 63.13(b)

5.1.aa. Part 63.52(a)

5.1.ab. Part 63.56

5.1.ac. Part 63.100 (1)(1)(iii)

5.1.ad. Part 63.101(a)

5.1.ae. Part 63.102(a)(2)(b)

5.1.af. Part 63.102(b)(3)

5.1.ag. Part 63.103(d), pertaining to the second occurrence of "Administrator".

5.1.ah. Part 63.106(a)

5.1.ai. Part 63.111(4) pertaining to the use of "Administrator" in the definition of "maximum true vapor pressure" ..

5.1.aj. Part 63.191(a)

5.1.ak. Part 63.192(h)

5.1.al. Part 63.193

5.1.am. Part 63.301

5.1.an. Part 63.302(a) (2)

5.1.ao. Part 63.304(b) (3)

5.1.ap. Part 63.304(d)

5.1.aq. Part 63.307(e) (1)

5.1.ar. Part 63.311(g) (2)

5.1.as. Part 63.313

5.1.at. Part 63.321

5.1.au. Part 63.325(a)

5.1.av. Part 63.325(b)

5.1.aw. Part 63.325(c)

5.1.ax. Part 63.342 pertaining to the use of "Administrator" in Table 1 to 63.342.

5.1.ay. Part 63.342(f) (3) (i) (c)

5.1.az. Part 63.343(c) (8) (ii)

5.1.ba. Part 63.343(d)

5.1.bb. Part 63.344(c) (4)

5.1.bc. Part 63.347(a)

5.1.bd. Part 63.347(c) (1)

5.1.be. Reference 63.8(F) (2) of Table 1 to Subpart N

5.1.bf. Part 63 Appendix A Method 306A Section 5.1.1.2.b

5.1.bg. Part 63.366(a)

5.1.bh. Part 63.366(a)(1)(ii)

5.1.bi. Part 63.366(a)(2)

5.1.bj. Part 63.401(3), pertaining to the second occurrence of "Administrator" in the definition of "Responsible Official".

5.1.bk. Part 63.404

5.1.bl. Part 63.428(h)

5.1.bm. Part 63.429(a)

5.1.bn. Part 63.460(e)

5.1.bo. Part 63.461 pertaining to the definition of "Administrator".

5.1.bp. Reference 63.2 of Appendix C to Subpart T

5.1.bq. Part 63.522 (three times in one sentence)

5.1.br. Part 63.703(h)(3)

5.1.bs. Part 63.707(a)

5.1.bt. Part 63.708(a)

5.1.bu. Part 63.468(j)

5.1.bv. Part 63.646(b)(2)

5.1.bw. Part 63.648(I)(B)(1)

5.1.bx. Part 63.652(I)(1)

5.1.by. Part 63.652(I)(1)(iii)

5.1.bz. Part 63.652(I)(2)

5.1.ca. Part 63.652(I)(3)

5.1.cb. Part 63.652(I)(4)

5.1.cc. Part 63.652(I)(5)

5.1.cd. Part 63.652(I)(5)(ii)

5.1.ce. Part 63.652(I)(6)

5.1.cf. Part 63.652(j)(2)(v)

5.1.cg. Part 63.743(c)
5.1.ch. Part 63.750(g)(4)(I)
5.1.ci. Part 63.750(g)(4)(I)(D)
5.1.cj. Part 63.751(e)(1)
5.1.ck. Part 63.751(e)(2)
5.1.cl. Part 63.751(e)(3)
5.1.cm. Part 63.751(e)(4)(I)
5.1.cn. Part 63.751(e)(4)(iii)
5.1.co. Part 63.751(e)(5)(I)
5.1.cp. Part 63.751(e)(5)(I)(B)
5.1.cq. Part 63.751(e)(5)(ii)
5.1.cr. Part 63.562(e)(2)(iv)
5.1.cs. Part 63.562(e)(3)
5.1.ct. Part 63.563(b)(9)
5.1.cu. Part 63.564(j)
5.1.cv. Part 63.565(m)(1)
5.1.cw. Part 63.565(m)(2)
5.1.cx. Part 63.567(b)(2)
5.1.cy. Part 63.567(b)(3)
5.1.cz. Part 63.801(a)
5.1.da. Part 63.804(f)(4)(iv)(D)
5.1.db. Part 63.804(g)(4)(iii)(C)
5.1.dc. Part 63.804(g)(6)(iii)(C)
5.1.dd. Part 63.805(e)(1)
5.1.de. Part 63.783(a)
5.1.df. Part 63.783(c)(1)

5.1.dg. Part 63.783(c)(2)
5.1.dh. Part 63.783(c)(3)
5.1.di. Part 63.786(b)
5.1.dj. Part 63.827(b)(1)(I)
5.1.dk. Part 63.827(b)(1)(iii)(B)
5.1.dl. Part 63.827(b)(2)(I)
5.1.dm. Part 63.827(c)(1)
5.1.dn. Part 63.827(c)(2)
5.1.do. Part 63.340(e)(1)
5.1.dp. Part 63.347(e)(2)
5.1.dq. Part 63.347(f)(1)

\$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 existing rule of the West Virginia Division of Environmental Protection, such inconsistency shall be resolved by the determination of the Director and such determination shall be based upon the application of the more stringent provision, term, condition, method, rule or regulation.

SUMMARY OF NESHAPS ACTION

June 1, 1995 - June 15, 1996

- Subject -	- Class -	- Summary -
June 12, 1996		Vol. 61, No. 114
NESHAPS: Petroleum Refineries	Final Rule	This action corrects errors and clarifies regulatory text of the "National Emission Standards for Hazardous Air Pollutants: Petroleum Refineries," which was issued as a final rule on August 18, 1995.
June 03, 1996		Vol. 61, No. 107
NESHAPS: Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks; Ethylene Oxide Commercial Sterilization and Fumigation Operations; Perchloroethylene Dry Cleaning Facilities; and Secondary Lead Smelting.	Final Rule	This action promulgates final action to amend certain sections of the following promulgated standards: "National Emission Standards for Chromium Emissions from hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks; Ethylene Oxide Commercial Sterilization and Fumigation Operations" Perchloroethylene Dry Cleaning Facilities", "Secondary Lead Smelting."
May 30, 1996		Vol. 61, No. 105
NESHAPS: Final Standards for Hazardous Air Pollutant Emissions From the Printing and Publishing Industry.	Final Rule	This action promulgates NESHAP under section 112 of the Clean Air Act (CAA), as amended in 1990 for the printing and publishing industry.

SUMMARY OF NESHAPS ACTION

June 1, 1995 - June 15, 1996

- Subject -	- Class -	- Summary -
May 10, 1996		Vol. 61, No. 92
NESHAPS: Hazardous Air Pollutants: Amendment to Regulations Governing Equivalent Emission Limitations by Permit	Direct Final Rule	This action amends the original Regulations Governing Equivalent Emission Limitations by Permit rule.
April 25, 1996		Vol. 61, No. 81
NESHAPS: Addition of Method 29 to Appendix A of Part 60 and Amendments to Method 101A of Appendix B of Part 61	Final Rule	This rule adds Method 29, "Determination of Methals Emissions from Stationary Sources," to Appendix A of Part 60, and makes amendments to Methods 101A of Appendix B of Part 61.
February 29, 1996		Vol. 61, No. 41
NESHAPS: Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry and Other Processes Subject to the Negotiated Regulation for Equipment Leaks.	Direct Final Rule	This action revises the date for submittal. Of those are source certifications and clarifies the wording of the documentation requirements.
NESHAPS: Gasoline Distribution (Stage I)	Final Rule	This action amends the "National Emission Standards for Source Categories: Gasoline Distribution (Stage I)" (the "Gasoline Distribution NESHAP").

SUMMARY OF NESHAPS ACTION

June 1, 1995 - June 15, 1996

- Subject -	- Class -	- Summary -
December 15, 1995		Vol. 60, No. 241
NESHAPS: Shipbuilding and Ship Repair (Surface Coating) Operations	Final Rule	This action promulgates national emission standards for hazardous air pollutants (NESHAP) under section 112 of the Clean Air Act...
December 12, 1995		Vol. 60, No. 238
NESHAPS: Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry and Other Processes Subject to the Negotiated Regulation for Equipment Leaks; Correction.	Final Rule	This action corrects several errors in cross-referencing provisions and clarifies regulatory text...
December 7, 1996		Vol. 60, No. 235
NESHAPS: Final Standards for Hazardous Air Pollutant Emissions from Wood Furniture Manufacturing Operations.	Final Rule	This final rule promulgates standards that limits the emissions of hazardous air pollutants (HAP) from existing and new wood furniture manufacturing operations located at major sources.

SUMMARY OF NESHAPS ACTION

June 1, 1995 - June 15, 1996

- Subject -	- Class -	- Summary -
September 19, 1995		Vol. 60, No. 181
NESHAPS: Hazardous Air Pollutants for Marine tank Vessel Loading Operations.	Final Rule	This action promulgates standards under section 183(f) of the Clean Air Act (the Act) and requires reasonably available control technology (RACT) to limit air emissions of volatile organic compounds (VOC) and hazardous air pollutants (HAP) from new and existing marine tank vessel loading operations.
August 18, 1995		Vol. 60, No. 160
NESHAPS: Petroleum Refineries	Final Rule	This final rule promulgates national emission standards for hazardous air pollutants (NESHAP) for petroleum refineries.

ENVIRONMENTAL PROTECTION AGENCY**40 CFR Parts 60 and 63**

[AD-FRL-5463-1]

RIN 2060-AD9Y

National Emission Standards for Hazardous Air Pollutants: Petroleum Refineries

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule; correcting amendments.

SUMMARY: This action corrects errors and clarifies regulatory text of the "National Emission Standards for Hazardous Air Pollutants: Petroleum Refineries," which was issued as a final rule on August 18, 1995.

EFFECTIVE DATE: June 12, 1996.

FOR FURTHER INFORMATION CONTACT: Mr. James Durham, Waste and Chemical Processes Group, Emission Standards Division (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina, 27711, telephone number (919) 541-5672.

SUPPLEMENTARY INFORMATION: On August 18, 1995 (60 FR 43244), the Environmental Protection Agency (EPA) promulgated in the *Federal Register* national emission standards for hazardous air pollutants (NESHAP) for petroleum refineries. These regulations were promulgated as subpart CC of 40 CFR part 63. The same notice amended standards of performance in 40 CFR part 60, subpart VV. This document contains corrections to typographical and cross referencing errors in these subparts. A few editorial clarifications are also being made to clarify the intent of certain provisions and correct inconsistencies between different sections of the rule.

I. Description of Clarifying Changes**A. Compliance Dates**

The compliance dates in § 63.640(h) are being clarified to remove an inconsistency regarding the compliance date for marine tank vessels. Section 63.640(h) stated that refineries have 3 years to comply with the NESHAP unless a case-by-case 1-year extension is granted. However, § 63.651 cross references the marine tank vessel loading rule [40 CFR 63, subpart Y (September 19, 1995; FR 43388)] which allows 4 years to comply without requiring a case-by-case extension. Therefore, it was unclear in the rule published on August 18, whether a compliance extension is required to allow marine tank vessel loading

operations at refineries 4 years to comply. The intent was to be consistent with subpart Y, unless marine tank vessels are used to generate credit in an emissions average. Paragraph (h)(3) is being added to § 63.640 to make it clear that marine tank vessel loading operations have 4 years to comply. However, if marine tank vessels loading is used to generate credits for an emissions average, compliance must be achieved in 3 years unless a case-by-case extension is granted by the regulatory authority as provided in § 63.6(i) of subpart A (the NESHAP general provisions). Because the other emission points at a refinery included in such an emissions average are required to comply within 3 years of promulgation, the emissions average would not balance if the marine tank vessel loading was not controlled by the third year. However, regulatory authorities have the discretion to allow an extension of up to 1 year for full implementation of the emissions average. This decision is best made on a site-specific basis.

A clarification is also being made to the wording of § 63.640(h)(4) which allows Group 1 storage vessels with floating roofs to comply at the next degassing and cleaning activity or within 10 years after promulgation of the rule, whichever is first. The clarification will insert the phrase "after August 18, 1998" after the words "cleaning activity". As explained in the promulgation preamble, the intent of this provision was to allow an extension of up to 10 years for floating roof storage vessels to achieve full compliance, not to require compliance prior to the 3-year compliance time allowed for all other emission points at refineries. As originally worded, this paragraph could have been misinterpreted as requiring storage vessels that were degassed prior to the August 18, 1998 compliance date to come into compliance earlier than the rest of the refinery.

A clarification is also being made to § 63.640(l) regarding compliance times and reports for addition of emission points to existing sources. This paragraph of the promulgated rule is clear regarding addition of miscellaneous process vents, storage vessels, gasoline loading racks, and marine tank vessel loading operations, but did not specifically address equipment leaks. Responses to comments in section 9 (general monitoring, recordkeeping, and reporting comments) of the background information document for the promulgated rule (EPA 453/R-95-015b) clarify that it was not intended that the addition of pumps, valves, and other

components to an existing source subject to the equipment leaks standard trigger new source reporting requirements. The amended paragraph clarifies that equipment leak component additions remain subject to existing source and not new source requirements.

Paragraph (m)(2) of § 63.640 has also been reworded to clarify the timing for of a compliance schedule submittal existing sources when a Group 2 emission point becomes a Group 1 emission point. The intended 180-day time period for submitting the compliance schedule has not been changed, but the intent of the previous wording "within 180 days after the change is made or the information regarding the change is known to the source" has been clarified by the rewording.

B. Clarification of Exemptions

Paragraph (d)(3) of § 63.640 is being reworded. This paragraph exempts equipment that is in organic hazardous air pollutant (HAP) service less than 300 hours per year. This exemption applies to the types of equipment listed in the definition of "equipment leaks" in § 63.641. In order to improve clarity, the specific types of equipment to which this exemption applies have been listed in § 63.640(d)(3). The list of equipment being added to this paragraph exactly matches the list already included in the definition of equipment leaks in § 63.641.

An exemption for emission points routed to refinery fuel gas systems is being added to § 63.640(d). This exemption is specified in the definition of "miscellaneous process vent" in § 63.641. Putting this exemption in the applicability section (§ 63.640) makes it clearer that all emissions routed to fuel gas systems are exempt from the rule.

C. Definitions

The definitions of "Group 1 gasoline loading rack" and "Group 1 marine tank vessel" are being revised for consistency with 40 CFR part 63 subparts R (the gasoline distribution NESHAP) and Y (the marine tank vessel loading NESHAP). The intent of the refineries NESHAP was to be consistent with subparts R and Y in terms of which loading operations require control. Sections 63.650 and 63.651 of the Refineries NESHAP (subpart CC) cross-reference subparts R and Y for control requirements for loading operations. However, throughput and emissions applicability criteria in subparts R and Y were not correctly incorporated in the Group 1 definitions in § 63.641. The definition of "Group 1 gasoline loading

rack" is being revised to mean a gasoline loading rack classified under SIC 2911 that is part of a bulk gasoline terminal with the capacity to load greater than 75,700 liters per year of gasoline. This is consistent with subpart R. The definition of "Group 1 marine tank vessel" is being revised by changing the emission rate criteria for existing sources from 9.1 megagrams per year of any individual HAP and 13.6 megagrams of any combination of HAPs to 9.1 megagrams per year of any individual HAP and 22.7 megagrams of any combination of HAPs. The revised definition also clarifies that these emission rate cutoffs apply only to existing sources, not to new sources. These clarifications remove inconsistencies between the definitions in § 63.641 of subpart CC and the rules cross-referenced in §§ 63.650 and 63.651.

The definition of storage vessel is being clarified by removing the clause "in organic HAP service". This was a drafting error. The definition was intended to cover vessels storing organic liquids. However, the phrase "in organic liquid service" was used without recognizing that it is a defined term used in the equipment leaks section of the rule to indicate equipment leak components containing or contacting fluid that is at least 5 weight percent organic HAP. The preamble to the final rule (60 FR 43252) and the "Group 1 storage vessel" definitions make it clear that storage vessels with lower percent organic HAP were intended to be regulated. The "Group 1 storage vessel" definition contains the correct organic HAP weight percent cutoffs of 4 percent for existing sources and 2 percent for new sources, which are discussed in the preamble for the final rule.

The definition of "Group 1 miscellaneous process vent" is being revised to clarify that the 20 parts per million by volume cutoff applies to organic HAP rather than volatile organic compounds (VOC). This is consistent with the definition of "miscellaneous process vent", which includes vents containing greater than 20 parts per million by volume organic HAP and with the 20 parts per million organic HAP language in § 63.643. The definitions of "miscellaneous process vent" and "equipment leaks" are also being clarified by specifying that they do not include emissions from wastewater collection and conveyance systems. Air emissions from wastewater systems are regulated under the wastewater provisions in § 63.647 of subpart CC.

Definitions of "startup" and "shutdown" are being added for

clarification. These definitions are consistent with definitions in the subpart A General Provisions and the hazardous organics NESHAP (40 CFR 60, subpart F). Under the General Provisions, § 63.6(f)(1) states that emission limits do not apply during startup, shutdown, and malfunction. These definitions make it clear that, for purposes of § 63.6(f)(1) and for the startup, shutdown, and malfunction plan, startup and shutdown refer to startup and shutdown of refinery process units or unit operations such as distillation units rather than to individual components such as pumps. To further clarify this point, the second sentence in the definition of "affected source" has been deleted. This sentence had been interpreted to mean that startup, shutdown, and malfunction plans apply to individual components.

Other minor definition changes are being made to correct typographical errors and improve clarity. For example, in the definition of "emission point", the word "gas" is changed to "gasoline", and a definition of leakless valves is being added to clarify which types of valves are excluded from the monitoring requirements of the rule.

D. Equations

The term "R" in the equation in § 63.642(g) represents the fraction of emissions from a Group 1 marine tank vessel loading operation after the required level of control has been applied. The phrase "and 0.05 for new offshore loading terminals" is being deleted because offshore loading terminals are not subject to subpart CC. Therefore, this phrase was not relevant to the refineries NESHAP, and would cause confusion.

The EPA is clarifying that the emissions averaging equations for gasoline loading racks assume that all facilities with Group 1 gasoline loading racks must comply with the requirements of subpart R regarding vapor-tightness of gasoline cargo tanks loaded at the facility, regardless of whether emissions averaging is used. Therefore, the emissions credit and debit calculation equations do not include terms for estimating emissions from leakage from gasoline cargo tanks. (Compliance with subpart R vapor-tightness provisions is not a new requirement. There is no change to the regulation language regarding this point.)

E. Recordkeeping and Reporting

Section 63.642(e) is being revised to state that records shall be maintained in such a manner that they can be readily accessed within 24 hours, rather than be

maintained on-site for 2 years. This change is consistent with the discussion on this issue in section 9 (general monitoring, recordkeeping and reporting comments) of the background information document for this rule. This change was not incorporated in the promulgated rule because of a drafting oversight.

In § 63.654(d), recordkeeping requirement for equipment leaks are being added that require owners or operators to keep a list of valves that are designated as "leakless." These valves are exempt from the valve monitoring requirements. This recordkeeping requirement is consistent with requirements in equipment leak rules cross-referenced in this subpart, such as 40 CFR part 60, subpart VV. The requirement was overlooked when drafting the cross-references to subpart VV. Owners or operators are also required to identify equipment in process units that are subject to the rule that are not considered in organic HAP service, and reciprocating compressors and pumps that are exempt from equipment leak control requirements. These requirements are consistent with the hazardous organic NESHAP recordkeeping and reporting requirements which is cross referenced in the rule.

Section 63.654(h)(1) is being clarified to explicitly state that reports of startup, shutdown, and malfunction required by § 63.10(d)(5) do not apply to Group 2 emission points at refineries, unless they are included in an emission average. This is already stated in table 6, which shows which portions of the NESHAP general provisions apply to subpart CC. Table 6 specifies, in footnote b, that § 63.10(d)(5) does not apply to Group 2 emission points that are not included in an emission average, but it would be clearer to the reader to also state this in § 63.654(h)(1).

In table 4 of 40 CFR part 63, subpart CC, the cross-references to § 63.428 (i) and (j) of 40 CFR part 63, subpart R are being deleted. These records and reports pertain to recordkeeping provisions of subpart R that are applicable to facilities that have calculated emissions from bulk terminals and pipeline breakout stations that fall below a de minimis level and are not subject to 40 CFR part 63, subpart CC. In table 6 of subpart CC, the applicability of § 63.6(h) has been clarified. This requirement is referenced in portions of the HON rule (40 CFR part 63, subpart G) and the general provisions (40 CFR part 63, subpart A) relating to flares that are cross-referenced from subpart CC, and it was incorrectly over-ridden in the table. However, paragraphs relating strictly to

marine tank vessel", "Group 1 miscellaneous process vent", the first sentence in the introductory text of "Storage vessel", and "Temperature monitoring device", and by adding a definition for "Leakless valve", "Startup", and "Shutdown" and by adding a paragraph (13) to the definition for "Miscellaneous process vent" to read as follows:

§ 63.641 Definitions.

Affected source means the collection of emission points to which this subpart applies as determined by the criteria in § 63.640.

Emission point means an individual miscellaneous process vent, storage vessel, wastewater stream, or equipment leak associated with a petroleum refining process unit; an individual storage vessel or equipment leak associated with a bulk gasoline terminal or pipeline breakout station classified under Standard Industrial Classification code 2911; a gasoline loading rack classified under Standard Industrial Classification code 2911; or a marine tank vessel loading operation located at a petroleum refinery.

Equipment leak * * *. Vents from wastewater collection and conveyance systems (including, but not limited to wastewater drains, sewer vents, and sump drains), tank mixers, and sample valves on storage tanks are not equipment leaks.

Group 1 gasoline-loading rack means any gasoline loading rack classified under Standard Industrial Classification code 2911 that is located within a bulk gasoline terminal that has a gasoline throughput greater than 75,700 liters per day. Gasoline throughput shall be the maximum calculated design throughput for the terminal as may be limited by compliance with enforceable conditions under Federal, State, or local law and discovered by the Administrator and any other person.

Group 1 marine tank vessel means a vessel at an existing source loaded at any land- or sea-based terminal or structure that loads liquid commodities with vapor pressures greater than or equal to 10.3 kilopascals in bulk onto marine tank vessels, that emits greater than 9.1 megagrams of any individual HAP or 22.7 megagrams of any combination of HAP annually after August 18, 1999, or a vessel at a new source loaded at any land- or sea-based terminal or structure that loads liquid commodities with vapor pressures greater than or equal to 10.3 kilopascals onto marine tank vessels.

Group 1 miscellaneous process vent means a miscellaneous process vent for which the total organic HAP concentration is greater than or equal to 20 parts per million by volume, and the total volatile organic compound emissions are greater than or equal to 33 kilograms per day for existing sources and 6.8 kilograms per day for new sources at the outlet of the final recovery device (if any) and prior to any control device and prior to discharge to the atmosphere.

Leakless valve means a valve that has no external actuating mechanism.

Miscellaneous process vent * * * (13) Emissions from wastewater collection and conveyance systems including, but not limited to, wastewater drains, sewer vents, and sump drains.

Shutdown means the cessation of a petroleum refining process unit or a unit operation (including, but not limited to, a distillation unit or reactor) within a petroleum refining process unit for purposes including, but not limited to, periodic maintenance, replacement of equipment, or repair.

Startup means the setting into operation of a petroleum refining process unit for purposes of production. Startup does not include operation solely for purposes of testing equipment. Startup does not include changes in product for flexible operation units.

Storage vessel means a tank or other vessel that is used to store organic liquids. * * *

Temperature monitoring device means a unit of equipment used to monitor temperature and having an accuracy of ± 1 percent of the temperature being monitored expressed in degrees Celsius or ± 0.5 °C, whichever is greater.

6. Section 63.642 is amended by revising paragraphs (e) and (g) as follows:

§ 63.642 General standards.

(e) Each owner or operator of a source subject to this subpart shall keep copies of all applicable reports and records required by this subpart for at least 5 years except as otherwise specified in this subpart. All applicable records shall be maintained in such a manner that they can be readily accessed within 24 hours. Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper,

microfilm, computer, floppy disk, magnetic tape, or microfiche.

(g) The owner or operator of an existing source subject to the requirements of this subpart shall control emissions of organic HAP's to the level represented by the following equation:

$$E_A = 0.02 \Sigma EPV_1 + \Sigma EPV_2 + 0.05 \Sigma ES_1 + \Sigma ES_2 + \Sigma EGLR_{1C} + \Sigma EGLR_2 + (R) \Sigma EMV_1 + \Sigma EMV_2 + \Sigma EWW_{1C} + \Sigma EWW_2$$

where:

E_A = Emission rate, megagrams per year, allowed for the source.

$0.02 \Sigma EPV_1$ = Sum of the residual emissions, megagrams per year, from all Group 1 miscellaneous process vents, as defined in § 63.641.

ΣEPV_2 = Sum of the emissions, megagrams per year, from all Group 2 process vents, as defined in § 63.641.

$0.05 \Sigma ES_1$ = Sum of the residual emissions, megagrams per year, from all Group 1 storage vessels, as defined in § 63.641.

ΣES_2 = Sum of the emissions, megagrams per year, from all Group 2 storage vessels, as defined in § 63.641.

$\Sigma EGLR_{1C}$ = Sum of the residual emissions, megagrams per year, from all Group 1 gasoline loading racks, as defined in § 63.641.

$\Sigma EGLR_2$ = Sum of the emissions, megagrams per year, from all Group 2 gasoline loading racks, as defined in § 63.641.

$(R) \Sigma EMV_1$ = Sum of the residual emissions megagrams per year, from all Group 1 marine tank vessels, as defined in § 63.641.

R = 0.03 for existing sources, 0.02 for new sources.

ΣEMV_2 = Sum of the emissions, megagrams per year from all Group 2 marine tank vessels, as defined in § 63.641.

ΣEWW_{1C} = Sum of the residual emissions from all Group 1 wastewater streams, as defined in § 63.641. This term is calculated for each Group 1 stream according to the equation for EWW_{1C} in § 63.652(h)(6).

ΣEWW_2 = Sum of emissions from all Group 2 wastewater streams, as defined in § 63.641.

The emissions level represented by this equation is dependent on the collection of emission points in the source. The level is not fixed and can change as the emissions from each emission point

$$\begin{aligned}
\text{Credits} = & D \sum_{i=1}^n ((0.02) \text{EPV1}_{i\text{u}} - \text{EPV1}_{i\text{ACTUAL}}) + D \sum_{i=1}^m (\text{EPV2}_{i\text{BASE}} - \text{EPV2}_{i\text{ACTUAL}}) + \\
& D \sum_{i=1}^n ((0.05) \text{ES1}_{i\text{u}} - \text{ES1}_{i\text{ACTUAL}}) + D \sum_{i=1}^m (\text{ES2}_{i\text{BASE}} - \text{ES2}_{i\text{ACTUAL}}) + \\
& D \sum_{i=1}^n (\text{EGLR1}_{i\text{c}} - \text{EGLR1}_{i\text{ACTUAL}}) + D \sum_{i=1}^m (\text{EGLR2}_{i\text{BASE}} - \text{EGLR2}_{i\text{ACTUAL}}) + \\
& D \sum_{i=1}^n ((0.03) \text{EMV1}_{i\text{u}} - \text{EMV1}_{i\text{ACTUAL}}) + D \sum_{i=1}^m (\text{EMV2}_{i\text{BASE}} - \text{EMV2}_{i\text{ACTUAL}}) + \\
& D \sum_{i=1}^n (\text{EWW1}_{i\text{c}} - \text{EWW1}_{i\text{ACTUAL}}) + D \sum_{i=1}^m (\text{EWW2}_{i\text{BASE}} - \text{EWW2}_{i\text{ACTUAL}})
\end{aligned}$$

14. Section 63.653 is amended by revising paragraph (a)(4) as follows:

§ 63.653 Monitoring, recordkeeping, and implementation plan for emission averaging.

(a) * * *

(4) For each gasoline loading rack that is controlled, perform the testing and monitoring procedures specified in §§ 63.425 and 63.427 of subpart R of this part except § 63.425(d) or § 63.427(c).

15. Section 63.654 is amended by revising paragraphs (d) introductory text, (d)(3), adding paragraphs (d)(4), (d)(5), and (d)(6), revising the first sentence of paragraph (g)(6)(iii), and revising paragraphs (g)(8)(ii)(B) and (h)(1), as follows:

§ 63.654 Reporting and recordkeeping requirements.

(d) Each owner or operator subject to the equipment leaks standards in § 63.648 shall comply with the recordkeeping and reporting provisions

in paragraphs (d)(1) through (d)(6) of this section.

(3) An owner or operator who determines that a compressor qualifies for the hydrogen service exemption in § 63.648 shall also keep a record of the demonstration required by § 63.648.

(4) An owner or operator must keep a list of identification numbers for valves that are designated as leakless per § 63.648(c)(10).

(5) An owner or operator must identify, either by list or location (area or refining process unit), equipment in organic HAP service less than 300 hours per year within refining process units subject to this subpart.

(6) An owner or operator must keep a list of reciprocating pumps and compressors determined to be exempt from seal requirements as per §§ 63.648 (f) and (i).

(g) * * *

(6) * * *

(iii) Periods of startup and shutdown that meet the definition of § 63.641, and malfunction that meet the definition in § 63.2 and periods of performance

testing and monitoring system calibration shall not be considered periods of excess emissions. * * *

(8) * * *

(ii) * * *

(B) The information required to be reported by § 63.428 (h)(1), (h)(2), and (h)(3) for each gasoline loading rack included in an emissions average, unless this information has already been submitted in a separate report;

(h) * * *

(1) Reports of startup, shutdown, and malfunction required by § 63.10(d)(5). Records and reports of startup, shutdown, and malfunction are not required if they pertain solely to Group 2 emission points, as defined in § 63.641, that are not included in an emissions average. For purposes of this paragraph, startup and shutdown shall have the meaning defined in § 63.641, and malfunction shall have the meaning defined in § 63.2; and

16. Table 3 in the appendices to subpart CC is amended by revising entries 63.182(b) and 63.182 (c) to read as follows:

TABLE 3.—EQUIPMENT LEAK RECORDKEEPING AND REPORTING REQUIREMENTS FOR SOURCES COMPLYING WITH § 63.648 OF SUBPART CC BY COMPLIANCE WITH SUBPART H OF THIS PART*

Reference (section of subpart H of this part)	Description	Comment
63.182(b)	Initial notification report requirements	Not required.
63.182(c)	Notification of compliance status report	Except in § 63.182(c); change "within 90 days of the compliance dates" to "within 150 days of the compliance dates"; except in §§ 63.182 (c)(2) and (c)(4).

* This table does not include all the requirements delineated under the referenced sections. See referenced sections for specific requirements.

17. Table 4 in the appendices to subpart CC is revised to read as follows:

TABLE 4.—GASOLINE DISTRIBUTION EMISSION POINT RECORDKEEPING AND REPORTING REQUIREMENTS*

Reference (section of subpart R of this part)	Description	Comment
63.428(b)	Records of test results for each gasoline cargo tank loaded at the facility.	
63.428(c)	Continuous monitoring data recordkeeping requirements.	
63.428(g)(1)	Semiannual report loading rack information.	Required to be submitted with the periodic report required under 40 CFR part 63 subpart CC.
63.428 (h)(1) through (h)(3)	Excess emissions report loading rack information.	Required to be submitted with the periodic report required under 40 CFR part 63 subpart CC.

* This table does not include all the requirements delineated under the referenced sections. See referenced sections for specific requirements.

18. Table 6 in the appendices to subpart CC is amended by revising entries 63.6(h) (1) and (2), 63.6(h) (4) and (5), 63.6(h)(6) and 63.6(h) (7) through (9) to read as follows:

TABLE 6.—GENERAL PROVISIONS APPLICABILITY TO SUBPART CC*

Reference	Applies to subpart CC*	Comment
63.6(h) (1) and (2)	Yes	
63.6(h) (4) and (5)	No	Visible emission requirements and timing in subpart CC.
63.6(h)(6)	Yes	
63.6(h) (7) through (9)	No	Subpart CC does not require opacity standards.

19. Table 8 in the appendices to subpart CC is amended by revising the heading of the table, as follows:

TABLE 8.—VALVE MONITORING
FREQUENCY FOR PHASE III

[FR Doc. 96-10382 Filed 6-11-96; 8:45 am]
BILLING CODE 5550-50-P

§ 14.619 [Amended]

19. In § 14.619, paragraphs (b) and (c) are amended by removing "\$40,000" each time it appears and adding, in its place, "\$100,000"; and paragraph (b) is further amended by removing "the General Counsel and claims in excess of \$100,000 may be compromised, settled, or waived only with the prior approval of".

[FR Doc. 96-13476 Filed 5-31-96; 8:45 am]

BILLING CODE 8320-01-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[AD-FRL-5512-6]

National Emission Standards for Hazardous Air Pollutants for: Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks; Ethylene Oxide Commercial Sterilization and Fumigation Operations; Perchloroethylene Dry Cleaning Facilities; and Secondary Lead Smelting

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates final action to amend certain sections of the following promulgated standards: "National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks; Final Rule" (subpart N); "National Emission Standards for Hazardous Air Pollutants for Ethylene Oxide Commercial Sterilization and Fumigation Operations" (subpart O); "National Emission Standards for Hazardous Air Pollutants for Source Categories: Perchloroethylene Dry Cleaning Facilities" (subpart M); and "National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting" (subpart X). Today's action amends the Final Rules' requirement that nonmajor sources (emitting or having the potential to emit less than 10 tons per year of any hazardous air pollutant or 25 tons per year of any combination of hazardous air pollutants) obtain title V operating permits. The action being taken today will substantially reduce the unnecessary and undue regulatory burden for States and local agencies, the EPA Regional Offices, and the industry during a time when all available resources are necessary for the initial

implementation of the title V permit program for major sources. Sources are still required to meet all applicable emission control requirements established by the respective maximum achievable control technology (MACT) standards. The only change from proposal to promulgation is that the 5-year deferral option, as with the other rules, is also being provided for nonmajor sources in the secondary lead smelters (subpart X) source category.

DATES: Effective Date: June 3, 1996.

Judicial Review: Under section 307(b)(1) of the Act, judicial review of national emission standards for hazardous air pollutants (NESHAP) is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days of today's publication of this final rule. Under section 307(b)(2) of the Act, the requirements that are the subject of today's notice may not be challenged later in civil or criminal proceedings brought by the EPA to enforce these requirements.

ADDRESSES: Docket. Docket No. A-88-02, containing the supporting information for the original subpart N NESHAP and this action, Docket No. A-88-03, containing the supporting information for the original subpart O NESHAP, Docket No. A-88-11, containing the supporting information for the original subpart M NESHAP, and Docket No. A-92-43, containing the supporting information for the original subpart X NESHAP, are available for public inspection and copying between 8:00 a.m. and 5:30 p.m., Monday through Friday, at the EPA Air and Radiation Docket and Information Center, Waterside Mall, room M-1500, first floor, 401 M Street S.W., Washington, D.C. 20460, or by calling (202) 260-7548. These dockets also contain information considered by the EPA in developing this final rule. A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: Mr. Lalit Banker, Emission Standards Division (MD-13), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone number (919) 541-5420.

SUPPLEMENTARY INFORMATION:

I. Background

The proposal notice was published in the Federal Register on December 13, 1995 (60 FR 64002). No public hearing was requested. Seventeen letters commenting on the proposed rule were

received during the public comment period.

II. Summary

A. Summary of Changes Since Proposal

The proposed rule offered title V permitting authorities the option to defer permitting of nonmajor sources in the following source categories: chromium electroplating and chromium anodizing tanks; ethylene oxide commercial sterilization and fumigation operations; and perchloroethylene dry cleaning facilities. The rule proposed permitting nonmajor secondary lead smelters on schedule. In response to public comments received and additional analyses performed by the EPA, one change has been made to the rule since proposal. The permitting authorities will be allowed the option to defer the nonmajor sources in the secondary lead smelters source category for 5 years from title V permit requirements similar to the option for nonmajor sources in the other source categories described in the proposal. Comments were also received on possible additional permanent exemptions for any of the source categories for which temporary exemptions were being considered. Although a majority of the comments supported permanent exemptions for these nonmajor sources, the EPA has decided not to grant permanent exemptions to any additional source categories at this time. However, the EPA will make a decision regarding additional permanent exemptions by the time the temporary exemptions expire. During the permit deferral period, the EPA will continue to evaluate the State/local agencies implementation and enforcement of the standards for nonmajor sources outside of a title V permit, the likely benefit of permitting such sources, and the costs and other burdens on such sources associated with obtaining a title V permit.

B. Significant Comments and Responses

Comments on the proposed rule were received from the industry and State and local regulatory agencies. Except for one State agency, all commenters concurred with the EPA option to allow states to defer title V permit requirements for nonmajor sources. The representative for the State of Florida disagreed with this recommendation by contending that permitting the subject nonmajor sources through the use of title V general permits would not constitute an undue regulatory burden for a permitting agency, nor would such a mechanism be considered exceptionally onerous for small

businesses covered by the section 112 standards. The State of Florida maintains that a general permit is the most efficient and cost-effective process by which States can implement emission standard requirements.

The commenter articulated that the deferral of permitting requirements for area sources is problematic for the following reasons. First, the deferral will create unnecessary confusion for affected sources that will still be subject to the NESHAP requirements. Second, permits are needed to practically verify emission limitations and work practices to which a source is subject. Third, the commenter questions whether the enforcement of NESHAP requirements can be accomplished by means other than a permit. The commenters experience has been that small businesses support a general permit that states the applicable NESHAP requirements. Lastly, the commenter believes that the lack of a permit requirement will result in unequal enforcement of emission limitations by individual States or local air pollution control agencies.

The EPA believes that the rationale described in the proposal for the temporary exemption option, as well as supportive public comments, strongly support the deferral of permitting for nonmajor sources; therefore, the EPA has not made any changes to this option. Nevertheless, the issues which the above commenter raises will be examined during the process of determining whether to permit or allow the exemption of nonmajor sources at the conclusion of the 5 year deferral. It should be noted that today's action does not preclude any State/local permitting authority from proceeding to permit the nonmajor sources discussed in this notice at their discretion during the deferral period.

Two commenters specifically questioned the EPA's justification in not allowing the deferral of nonmajor secondary lead smelters. The EPA had proposed that requiring nonmajor secondary lead smelters to obtain Part 70 permits without delay would not be impracticable or infeasible for the State or local permitting authorities involved and would not unnecessarily burden these companies since, in contrast to the hundreds or thousands of sources in the four other source categories, there are only a few secondary lead smelters which are nonmajor sources. The commenters contend that requiring nonmajor secondary lead smelters to obtain a title V permit is also unnecessary and could cause undue burden both to the industry as well as

to the State agencies and will not enhance any environmental benefits.

Upon consideration of these comments and further evaluation, the EPA believes that the relatively few number of sources in a category is not an important distinction, and that States should, therefore, also be allowed to temporarily exempt nonmajor secondary lead smelters from permitting requirements, along with sources in the other source categories. This change from proposal is consistent with the EPA's decision for deferral for the other area source categories. As explained previously, comments were received on the other nonmajor source categories requesting an option for permanent permit exemptions. The EPA will continue to evaluate factors related to this issue and make a decision regarding permanent exemptions by the time the temporary exemptions expire. This ongoing evaluation reinforced the advisability of also providing the opportunity for the deferral of permits to secondary lead smelters, so that the permit requirements for all nonmajor sources can be addressed as a package. These nonmajor sources are still required to comply with the requirements of the promulgated standard for secondary lead smelters regardless of whether they will be permitted in the near term. While the EPA disagrees with the assertion that permitting under title V does not yield an environmental benefit, the EPA does agree that to require the immediate permitting of nonmajor secondary lead smelters is unnecessarily burdensome during the initial years of the title V program.

III. Administrative Requirements

A. Paperwork Reduction Act

The information collection requirements of the previously promulgated National Emission Standards for Hazardous Air Pollutants (NESHAP) were submitted to and approved by the Office of Management and Budget (OMB). Today's changes to the NESHAP would not increase the information collection burden estimates made previously. In fact, they are expected to reduce the required paperwork by providing the opportunity for delays for some sources and exemptions for others from requirements to obtain a title V permit.

B. Executive Order 12866

Under Executive Order 12866, the Agency must determine whether a regulatory action is "significant" and therefore subject to OMB review and the requirements of the Executive Order.

The 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 the Executive Order, the OMB has notified the EPA that it does not consider this to be a "significant regulatory action" within the meaning of the Executive Order. Therefore, the EPA did not submit this action to the OMB for review.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 et seq.) requires the EPA to consider potential impacts of regulations on small entities. A regulatory flexibility analysis (RFA) is required if preliminary analysis indicates "a significant economic impact on a substantial number of small entities". As explained earlier in this rule, these amendments would reduce the impacts on small entities (specifically small businesses) by allowing States to delay some and exempt others from the requirement to obtain a title V permit.

Pursuant to the provisions of 5 U.S.C. 605(b), I hereby certify that this rule will not have a significant economic impact on a substantial number of small entities.

D. Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA)

Subtitle E of SBREFA establishes opportunity for Congress to review and potentially disapprove nonmajor rules promulgated on or after March 29, 1996 or major rules promulgated after March 1, 1996. With limited exceptions, it provides that no rule promulgated on or after March 29, 1996, may take effect until it is submitted to Congress and the Comptroller General along with specified supporting documentation. Different requirements apply to major rules. This rule, which is nonmajor, is

being submitted to Congress in accordance with these requirements.

E. Unfunded Mandates Reform Act

Section 202 of the Unfunded Mandates Reform Act of 1995 ("unfunded Mandates Act"), (signed into law on March 22, 1995) requires that the Agency prepare a budgetary impact statement to accompany any proposed or final rule that includes a Federal Mandate that may result in expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$100 million or more in any 1 year. Section 203 requires the Agency to establish a plan for obtaining input from and informing, educating, and advising any small governments that may be significantly or uniquely affected by the rule.

As explained earlier in this notice, these amendments would reduce the cost to State, local, and tribal governments and the private sector by allowing States to delay some and exempt others from the requirement to obtain a title V permit. Therefore, the EPA has not prepared a budgetary impact statement for these amendments.

List of Subjects in 40 CFR Part 63

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

Dated: May 22, 1996.

Carol M. Browner,
Administrator.

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

PART 63—[AMENDED]

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

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

Subpart N—[Amended]

2. Section 63.340 is amended by revising paragraph (e) to read as follows:

§ 63.340 Applicability and designation of sources.

(e)(1) The Administrator has determined, pursuant to the criteria

under section 502(a) of the Act, that an owner or operator of the following types of operations that are not by themselves major sources and that are not located at major sources, as defined under 40 CFR 70.2, is permanently exempt from title V permitting requirements for that operation:

(i) Any decorative chromium electroplating operation or chromium anodizing operation that uses fume suppressants as an emission reduction technology; and

(ii) Any decorative chromium electroplating operation that uses a trivalent chromium bath that incorporates a wetting agent as a bath ingredient.

(2) An owner or operator of any other affected source subject to the provisions of this subpart is subject to title V permitting requirements. These affected sources, if not major or located at major sources as defined under 40 CFR 70.2, may be deferred by the applicable title V permitting authority from title V permitting requirements for 5 years after the date on which the EPA first approves a part 70 program (i.e., until December 9, 1999). All sources receiving deferrals shall submit title V permit applications within 12 months of such date (by December 9, 2000). All sources receiving deferrals still must meet the compliance schedule as stated in § 63.343.

3. Section 63.342 is amended by revising the first sentence of paragraph (c)(2)(i)(B) and introductory text of paragraph (f)(3)(i) to read as follows:

§ 63.342 Standards.

(c) * * *

(2) * * *

(i) * * *

(B) By accepting a Federally-enforceable limit on the maximum cumulative potential rectifier capacity of a hard chromium electroplating facility and by maintaining monthly records in accordance with § 63.346(b)(12) to demonstrate that the limit has not been exceeded. * * *

(f) * * *

(3) * * *

(i) The owner or operator of an affected source subject to the work

practices of this paragraph (f) shall prepare an operation and maintenance plan to be implemented no later than the compliance date. The plan shall be incorporated by reference into the source's title V permit, if and when a title V permit is required. The plan shall include the following elements:

§ 63.344 [Amended]

4. In § 63.344, paragraphs (e)(3)(v) and (e)(4)(iv) are amended by revising the word "less" to read "more".

5. Section 63.347 is amended by revising the introductory text in paragraph (e)(2) and paragraph (f)(1) to read as follows:

§ 63.347 Reporting requirements.

(e) * * *

(2) If the State in which the source is located has not been delegated the authority to implement the rule, each time a notification of compliance status is required under this part, the owner or operator of an affected source shall submit to the Administrator a notification of compliance status, signed by the responsible official (as defined in § 63.2) who shall certify its accuracy, attesting to whether the affected source has complied with this subpart. If the State has been delegated the authority, the notification of compliance status shall be submitted to the appropriate authority. The notification shall list for each affected source:

(f) * * *

(1) If the State in which the source is located has not been delegated the authority to implement the rule, the owner or operator of an affected source shall report to the Administrator the results of any performance test conducted as required by § 63.7 or § 63.343(b). If the State has been delegated the authority, the owner or operator of an affected source should report performance test results to the appropriate authority.

6. Table 1 to subpart N of Part 63 is amended by revising the entry for "63.5(a)" to read as follows:

TABLE 1 TO SUBPART N OF PART 63—GENERAL PROVISIONS APPLICABILITY TO SUBPART N

General provisions reference	Applies to subpart N	Comment
63.5(a)	Yes	Except replace the term "source" and "stationary source" in § 63.5(a) (1) and (2) of subpart A with "affected sources."

TABLE 1 TO SUBPART N OF PART 63—GENERAL PROVISIONS APPLICABILITY TO SUBPART N—Continued

General provisions reference	Applies to subpart N	Comment
Subpart O—[Amended]		
7. Section 63.360 is amended by revising paragraph (f) to read as follows:		
§ 63.360 Applicability.		
* * * * *		
(f) The owner or operator of a source, subject to the provisions of the title 40, chapter I, part 63 subpart O, using 1 ton (see definition) is subject to title V permitting requirements. These affected sources, if not major or located at major sources as defined under 40 CFR 70.2, may be deferred by the applicable title V permitting authority from title V permitting requirements for 5 years after the date on which the EPA first approves a part 70 program (i.e., until December 9, 1999). All sources receiving deferrals shall submit title V permit applications within 12 months of such date (by December 9, 2000). All sources receiving deferrals still must meet compliance schedule as stated in this § 63.360.	subpart X is subject to title V permitting requirements. These affected sources, if not major or located at major sources as defined under 40 CFR 70.2, may be deferred by the applicable title V permitting authority from title V permitting requirements for 5 years after the date on which the EPA first approves a part 70 program (i.e., until December 9, 1999). All sources receiving deferrals shall submit title V permit applications within 12 months of such date (by December 9, 2000). All sources receiving deferrals still must meet compliance schedule as stated in § 63.546.	Region 4, North Superfund Remedial Branch, 345 Courtland Street NE., Atlanta, GA 30365, (404) 347-7791, extension 2030.
* * * * *		
Subpart M—[Amended]		
8. Section 63.320 is amended by adding paragraph (k) to read as follows:		
§ 63.320 Applicability.		
* * * * *		
(k) The owner or operator of any source subject to the provisions of this subpart M is subject to title V permitting requirements. These affected sources, if not major or located at major sources as defined under 40 CFR 70.2, may be deferred by the applicable title V permitting authority from title V permitting requirements for 5 years after the date on which the EPA first approves a part 70 program (i.e., until December 9, 1999). All sources receiving deferrals shall submit title V permit applications within 12 months of such date (by December 9, 2000). All sources receiving deferrals still must meet compliance schedule as stated in this § 63.320.		SUPPLEMENTARY INFORMATION: The site to be deleted from the NPL is: Newport Dump Superfund Site, Wilder, Kentucky. A Notice of Intent To Delete for this site was published on May 16, 1988 (SW-FRL-3380-7). A Revised Notice of Intent To Delete was published on March 8, 1996 (FRL-5436-5). The closing date for comments on the Revised Notice of Intent To Delete was April 17, 1996. EPA received no comments. EPA identifies sites that appear to present a significant risk to public health, welfare, or the environment and it maintains the NPL as the list of those sites. Any site deleted from the NPL remains eligible for Fund-financed remedial actions in the unlikely event that conditions at the site warrant such action in the future. Section 300.425(e)(3) of the NCP states that Fund-financed actions may be taken at sites deleted from the NPL. Deletion of a site from the NPL does not affect responsible party liability or impede agency efforts to recover costs associated with response efforts.
Subpart X—[Amended]		
9. Section 63.541 is amended by adding paragraph (c) to read as follows:		
§ 63.541 Applicability.		
* * * * *		
(c) The owner or operator of any source subject to the provisions of this		
	40 CFR Part 300 [FRL-5512-1] National Oil and Hazardous Substances Pollution Contingency Plan National Priorities List AGENCY: Environmental Protection Agency (EPA). ACTION: Notice of deletion of Newport Dump Superfund Site, Wilder, Kentucky, from the National Priorities List SUMMARY: The U.S. Environmental Protection Agency (EPA) announces the deletion of the Newport Dump Superfund Site in Wilder, Kentucky, from the National Priorities List (NPL), (Appendix B of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP)). EPA and the Commonwealth of Kentucky have determined that all appropriate Fund-financed responses under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended, have been implemented and that no further cleanup is appropriate. Moreover, EPA and the Commonwealth of Kentucky determined that response actions conducted at the site to date have been protective of public health, welfare, and the environment. This deletion does not preclude future action under Superfund. EFFECTIVE DATE: May 31, 1996. FOR FURTHER INFORMATION CONTACT: Liza Montalvo, Remedial Project Manager, U.S. Environmental Protection Agency,	List of Subjects in 40 CFR Part 300 Environmental Protection, Air Pollution Control, Chemicals, Hazardous Waste, Hazardous Substances, Intergovernmental Relations, Penalties, Reporting and Recordkeeping Requirements, Superfund, Water Pollution Control, and Water Supply. Dated: May 21, 1996. A. Stanley Meiburg, Deputy Regional Administrator, U.S. EPA Region 4. For the reasons set out in the preamble, 40 CFR part 300 is amended as follows: PART 300—[AMENDED] The authority citation for Part 300 continues to read as follows: Authority: 42 U.S.C. 9601-9657; 33 U.S.C. 1321(c)(2); E.O. 12777, 56 FR 54757; 3 CFR 1991 Comp., p. 351; E.O. 12580, 52 FR 2923; 3 CFR, 1987 Comp., p. 193.

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Thursday
May 30, 1996

Federal Register

Part II

**Environmental
Protection Agency**

40 CFR Parts 9 and 63

Final Standards for Hazardous Air
Pollutant Emissions from the Printing
and Publishing Industry; Final Rule

ENVIRONMENTAL PROTECTION
AGENCY

40 CFR Parts 9 and 63

[AD-FRL-5509-1]

RIN 2060-AD95

National Emission Standards for
Hazardous Air Pollutants; Final
Standards for Hazardous Air Pollutant
Emissions From the Printing and
Publishing IndustryAGENCY: Environmental Protection
Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national emission standards for hazardous air pollutants (NESHAP) under section 112 of the Clean Air Act (CAA), as amended in 1990 for the printing and publishing industry. The NESHAP requires existing and new major sources to control emissions using the maximum achievable control technology (MACT) to control hazardous air pollutants (HAP). The standards were proposed in the Federal Register on March 14, 1995 (60 FR 13664). This Federal Register action announces the EPA's final decisions on the rule.

The final rule includes organic HAP emission limits for publication rotogravure, product and packaging rotogravure, and wide-web flexographic printing. A variety of organic HAP are used as solvents and components of inks and other materials used by printers. The HAP emitted by the facilities covered by this final rule include xylene, toluene, ethylbenzene, methyl ethyl ketone, methyl isobutyl ketone, methanol, ethylene glycol, and certain glycol ethers. All of these pollutants can cause reversible or irreversible toxic effects following exposure. The potential toxic effects include eye, nose, throat, and skin irritation; and damage to the heart, liver, kidneys, and blood cells. The final rule is estimated to reduce baseline emissions of HAP by 31 percent or 6700 megagrams per year (Mg/yr) (7400 tons per year (tpy)).

The emissions reductions achieved by these standards, combined with the emissions reductions achieved by similar standards, will achieve the primary goal of the CAA, which is to "enhance the quality of the Nation's air resources so as to promote the public health and welfare and productive capacity of its population". The intent of this final regulation is to protect the public health by requiring the maximum degree of reduction in emissions of

organic HAP from new and existing sources, taking into consideration the cost of achieving such emission reduction, any nonair quality, health and environmental impacts, and energy requirements.

EFFECTIVE DATE: May 30, 1996.

ADDRESSES: *Background Information Document.* The background information document (BID) for the promulgated standards may be obtained from the U.S. Department of Commerce, National Technical Information Service, Springfield, Virginia, 22161, telephone number (703) 487-4650. Please refer to "National Emission Standards for Hazardous Air Pollutants for the Printing and Publishing Industry—Background Information for Promulgated Standards," EPA-453/R-96-005b. The BID contains (1) a summary of the changes made to the standards since proposal, and (2) a summary of all the public comments made on the proposed standards and the Administrator's response to the comments.

Electronic versions of the promulgation BID as well as this final rule are available for download from the EPA's Technology Transfer Network (TTN), a network of electronic bulletin boards developed and operated by the Office of Air Quality Planning and Standards. The TTN provides information and technology exchange in various areas of air pollution control. The service is free, except for the cost of a phone call. Dial (919) 541-5742 for data transfer of up to 14,400 bits per second. If more information on TTN is needed, contact the systems operator at (919) 541-5384.

Docket. Docket No. A-92-42, containing supporting information used in developing the promulgated standards, is available for public inspection and copying from 8 a.m. to 5:30 p.m., Monday through Friday, at the EPA Air and Radiation Docket and Information Center, Waterside Mall, Room M-1500, Ground Floor, 401 M Street, SW, Washington, DC 20460; telephone number (202) 260-7548, FAX (202) 260-4400. A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: Mr. David Salman at (919) 541-0859, Emission Standards Division (MD-13), U. S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

SUPPLEMENTARY INFORMATION:

Regulated Entities

Entities potentially regulated by this action are those which have the potential to emit HAP listed in section

112(b) of the CAA in the following regulated categories and entities:

Category	Examples of regulated entities
Industry	Printers, publishers, and manufacturers of packaging, wall and floor coverings, house furnishings and sanitary paper products employing rotogravure printing or wide-web flexographic printing technologies.

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 the EPA is now aware could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your facility is regulated by this action, you should carefully examine the applicability criteria in § 63.820 of the rule. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding FOR FURTHER INFORMATION CONTACT section of this preamble.

Under section 307(b)(1) of the CAA, judicial review of NESHAP is available only by the filing of a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days of today's publication of this rule. Under section 307(b)(2) of the CAA, the requirements that are the subject of today's notice may not be challenged later in civil or criminal proceedings brought by the EPA to enforce these requirements.

The information presented in this preamble is organized as follows:

- I. Background
 - A. Regulatory Background and Purpose
 - B. Common Sense Initiative
- II. The Standards
- III. Summary of Impacts
- IV. Significant Changes to the Proposed Standards
 - A. Public Participation
 - B. Comments on the Proposed Standards
 - C. Significant Changes
 - D. Minor Changes
- V. Administrative Requirements
 - A. Docket
 - B. Paperwork Reduction Act
 - C. Executive Order 12866: Administrative Designation and Regulatory Analysis
 - D. Executive Order 12875
 - E. Regulatory Flexibility Act
 - F. Unfunded Mandates Act of 1995
 - G. Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA)

I. Background

A. Regulatory Background and Purpose

Section 112 of the CAA requires control of emissions of HAP to protect public health and the environment. This final regulation will reduce emissions of organic HAP from rotogravure and wide-web flexographic printing operations.

In part, section 112 requires that emission standards be promulgated for all categories of major sources of HAP, and for many categories of small "area" sources. The CAA lists 189 HAP believed to cause adverse health or environmental effects. Major sources are defined as those that emit or have the potential to emit at least 10 tons per year of any single HAP or 25 tons per year of any combination of HAP.

In the July 16, 1992, *Federal Register* (57 FR 31576), the EPA published the initial list of categories of sources slated for regulation. This list includes the printing and publishing category. Emissions standards for the listed source categories are required to be promulgated between November 1992 and November 2000.

Congress specified that each of these standards must require the maximum reduction in emissions of HAP that the EPA determines is achievable considering cost, non-air-quality health and environmental impacts, and energy requirements. In essence, these MACT standards ensure that all major sources of air toxics achieve the level of control already being achieved by the better controlled and lower emitting sources in each category. This approach creates a level economic playing field, ensuring that facilities that employ cleaner processes and good emissions controls are not disadvantaged relative to competitors with poorer controls. At the same time, this approach provides assurance to every citizen, in every community, that any major source of toxic air pollution located nearby will have to effectively control its emissions.

All U.S. publication rotogravure facilities and some product and packaging rotogravure and wide-web flexographic printing facilities are major sources of HAP emissions, with the potential to emit over 23 Mg/yr (25 tpy) of organic HAP, including toluene, xylene, ethylbenzene, methanol, methyl ethyl ketone, methyl isobutyl ketone, ethylene glycol, and certain glycol ethers. All of these pollutants can cause reversible or irreversible toxic effects following exposure. The potential toxic effects include irritation of the eyes, nose, throat, and skin; and damage to the heart, liver, kidneys, and blood cells.

The EPA recognizes that the degree of adverse effects to health resulting from the most significant emissions identified can range from mild to severe. The extent to which the effects could be experienced is dependent upon the ambient concentrations and exposure time. The latter is further influenced by source-specific characteristics such as emission rates and local meteorological conditions. Human variability factors, including genetics, age, pre-existing health conditions, and lifestyle also influence the degree to which effects to health occur.

The final standards will reduce organic HAP emissions from rotogravure and wide-web flexographic printing operations by 6,700 Mg/yr (7,400 tpy) from a baseline level of 21,700 Mg/yr (23,900 tpy). No small firms are at risk of closure as a result of the final standards, and there will not be a significant economic impact on a substantial number of small entities.

B. Common Sense Initiative

On October 17, 1994, the Administrator established the Common Sense Initiative (CSI) Council in accordance with the Federal Advisory Committee Act (U.S.C. App. 2, section 9(c)) requirements. The CSI addresses six industrial sectors. The Printing CSI Subcommittee addresses the Printing and Publishing industry.

The following are the six principles of the CSI program, as stated in the "Advisory Committee Charter."

1. *Regulation.* Review existing regulations for opportunities to get better environmental results at less cost. Improve new rules through increased coordination.

2. *Pollution Prevention.* Actively promote pollution prevention as the standard business practice and a central ethic of environmental protection.

3. *Recordkeeping and Reporting.* Make it easier to provide, use, and publicly disseminate relevant pollution and environmental information.

4. *Compliance and Enforcement.* Find innovative ways to assist companies that seek to comply and exceed legal requirements while consistently enforcing the law for those that do not achieve compliance.

5. *Permitting.* Improve permitting so that it works more efficiently, encourages innovation, and creates more opportunities for public participation.

6. *Environmental Technology.* Give industry the incentives and flexibility to develop innovative technologies that meet and exceed environmental standards while cutting costs.

The Printing CSI Subcommittee met for the first time just before the proposed rule was published. Several Subcommittee members were very involved in the development of the proposed rule. All Subcommittee members were made aware of the proposal and copies of the proposal were provided to all interested Subcommittee members. Although the Subcommittee did not choose to make review of the proposed rule one of its projects, several Subcommittee members did submit comments on the proposed rule. The subcommittee was provided with an update on the final rule at its March 19, 1996 meeting.

Many aspects of the CSI principles are reflected in the final standards. The alternatives considered in the development of this regulation, including those alternatives selected as standards for new and existing printing facilities, are based on process and emissions data received from over 600 printing facilities. The EPA met with industry and trade groups on numerous occasions to discuss these data. In addition, printers, trade organizations, ink manufacturers, and State and local regulatory authorities commented on draft versions of the proposed regulation and on the proposed regulation. Two trade organizations provided extensive comments. All comments were considered, and a number of changes to the final rule reflect these comments. Of major concern to industry were the opportunity to comply through pollution prevention by using low HAP content materials, the analytical method for HAP content determination, reliance on formulation data for HAP and volatile matter determination, and flexible compliance demonstration provisions that account for different configurations of work stations and printing presses within a facility.

The regulation allows sources the flexibility to select from various options for compliance. Sources may reduce HAP usage and emissions through conversion to waterborne, lower HAP solvent-borne or ultraviolet/electron beam cure materials. Alternatively, sources may install or upgrade existing capture and control devices to meet the proposed standard. Finally, sources have the option to comply by a combination of lower HAP materials and capture and control. Facilities may select the most cost-effective option based on facility specific considerations.

The final rule allows existing facilities three years from the date of promulgation to comply. This is the maximum amount of time allowed under the CAA. This time frame will provide the greatest opportunity for

developing and adopting low-HAP content materials, and provide sufficient time for facilities that choose to install or upgrade capture and control equipment.

Included in the final rule are methods for determining initial compliance as well as monitoring, recordkeeping, and reporting requirements. All of these components are necessary to ensure that sources will comply with the standards both initially and over time. However, the EPA has made every effort to simplify the requirements in the rule. The EPA has also attempted to maintain consistency with existing regulations.

Representatives from other interested EPA offices and programs were included in the regulatory development process as members of the work group. The work group reviewed and concurred with the regulation before proposal and promulgation. Therefore, the EPA believes that the implications to other EPA offices and programs have been adequately considered during the development of the rule.

II. The Standards

The final rule is applicable to all existing and new rotogravure and wide-web flexographic facilities that are major sources of HAP or are located at plant sites that are major sources of HAP.

Publication rotogravure facilities subject to this rule must limit emissions of organic HAP to no more than eight percent of the total volatile matter used each month. The emission limitation may be achieved by capture and control of at least 92 percent of organic HAP used, by substitution of non-HAP materials for organic HAP, or by a combination of capture and control technologies and substitution of materials.

Product and packaging rotogravure and wide-web flexographic printing facilities subject to this rule must limit emissions to no more than five percent of the organic HAP applied each month, or to no more than four percent of the mass of inks, coatings, varnishes, adhesives, primers, solvents, reducers, thinners, and other materials applied each month, or to no more than 20 percent of the solids applied each month, or to an equivalent allowable mass based on the as-applied solids contents of the materials applied each month.

Section 112(a) of the CAA defines major source as a source, or group of sources, located within a contiguous area and under common control that emits or has the potential to emit, considering controls, 9.1 Mg/yr (10 tpy) or more of any individual HAP or 22.7

Mg/yr (25 tpy) or more of any combination of HAP. Area sources are stationary sources that do not qualify as "major." "Potential to emit" is defined in the section 112 General Provisions (40 CFR 63.2) as "the maximum capacity of a stationary source to emit a pollutant under its physical or 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 the 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.

The EPA notes that in recent decisions, *National Mining Ass'n v. EPA*, 59 F.3d 1351 (D.C. Cir. 1995) and *Chemical Manufacturers Ass'n v. EPA*, No. 89-1514, slip op. (D.C. Cir. Sept. 15, 1995), the District of Columbia Circuit court addressed challenges related to the EPA's requirement that a source which wishes to limit its potential to emit must obtain a federally enforceable limit for the New Source Review and NESHAP programs. The EPA is currently reviewing its Federal enforceability requirements in light of these court decisions, and has not yet decided how it will address this issue. Once the EPA has completed its review of the Federal enforceability requirements in all relevant programs including the NESHAP program, the EPA will make available in a Federal Register notice its response to the court decisions. In the interim, the EPA has issued its Interim Policy on Enforceability of Limitations on Potential to Emit (January 22, 1996), which summarizes how certain State-enforceable limits may be recognized under this definition pending further rulemaking.

To determine the applicability of this rule to facilities that are within a contiguous area of other HAP-emitting emission sources that are not part of the source category covered by this rule, the owner or operator must determine whether the plant site as a whole is a major source. A formal HAP emissions inventory must be used to determine if total potential HAP emissions from all HAP emission sources at the plant site meet the definition of a major source. If the facility commits to HAP usage restrictions as provided in the rule that ensure potential HAP emissions will be below the major source cutoffs, only simplified reporting and recordkeeping requirements apply. A facility may also limit its potential to emit through other appropriate mechanisms that may be

available through the permitting authority.

Existing major sources may switch to area source status by obtaining and complying with a federally enforceable limit on their potential to emit prior to the "compliance date" of the regulation. The "compliance date" for existing sources for this regulation is defined as May 30, 1999. New major sources are required to comply with the NESHAP requirements upon start-up or the promulgation date, whichever is later. A facility that has not obtained federally enforceable limits on its potential to emit by the compliance date, and that has not complied with the NESHAP requirements, will be in violation of the NESHAP. All sources that are major sources for HAP on the compliance date or become major sources after the compliance date are required to comply permanently with the NESHAP to ensure that the maximum achievable reductions in toxic emissions are achieved and maintained.

The final standards impose limits on organic HAP emissions from rotogravure and wide-web flexographic printing. Publication rotogravure facilities must demonstrate compliance on a monthly basis considering all organic HAP used on publication rotogravure presses and all affiliated equipment, including proof presses, cylinder and parts cleaners, ink and solvent mixing and storage equipment, and solvent recovery equipment. Facilities may comply using capture and control equipment, substitution of non-HAP solvents for HAP, or a combination of these methods.

Product and packaging rotogravure and wide-web flexographic printing facilities must demonstrate compliance on a monthly basis considering all organic HAP applied on product and packaging rotogravure and wide-web flexographic printing presses. Certain presses which are used primarily for coating, laminating, or printing using other technologies than rotogravure printing and wide-web flexographic printing may be excluded from the affected source, subject only to simplified recordkeeping requirements. Owners or operators of such equipment will be subject to the appropriate source category standard when such a standard is issued.

Product and packaging rotogravure and wide-web flexographic printers may comply through the use of capture and control equipment, the substitution of non-HAP solvents for HAP, or a combination of these methods. Facilities may comply on the basis of organic HAP emissions per mass of solids applied, organic HAP emissions per mass of

materials applied, allowable organic HAP emissions based on the as-applied solids content of the materials applied, or overall organic HAP control efficiency.

III. Summary of Impacts

These standards will reduce nationwide emissions of HAP from rotogravure and wide-web flexographic printing operations by approximately 6700 Mg/yr (7400 tpy) in 1999 compared to the emissions that would result in the absence of the standards. These standards will also, to some extent, reduce volatile organic compounds (VOC) emissions from those same operations compared to the emissions that would result in the absence of the standards. The extent of the reduction in VOC emissions cannot be predicted because of uncertainty over the extent to which printers will comply through substitution of water and non-VOC organics for organic HAP. No significant adverse secondary air, water, solid waste, or energy impacts are anticipated from the promulgation of these standards.

Implementation of this regulation is expected to result in nationwide annual costs (including capital recovery) of approximately \$40 million beyond baseline. These costs include \$21 million per year for publication rotogravure printers and \$19 million per year for package and product rotogravure and wide-web flexographic printers. These costs include capital recovery over a ten year period, operating costs for newly installed and upgraded capture and control systems, and costs for recordkeeping, reporting, and monitoring. Cost estimates for publication rotogravure printers remain unchanged from the proposed rule. Estimated costs for package and product rotogravure and wide-web flexographic printers are \$2 million less than those for the proposed rule as a result of the facility-wide definition of affected source.

The economic impact analysis conducted before proposal showed that the economic impacts from the proposed standards would be insignificant. Since compliance costs and reporting and recordkeeping burdens have been reduced in the final rule, the economic impacts of the final rule are also insignificant.

IV. Significant Changes to the Proposed Standards

A. Public Participation

The standards were proposed and the preamble was published in the *Federal Register* on March 14, 1995 (60 FR

13664). The preamble to the proposed standards discussed the availability of the regulatory text and proposal BID, which described the regulatory alternatives considered and the impacts of those alternatives. Public comments were solicited at the time of proposal, and copies of the regulatory text and BID were distributed to interested parties. Electronic versions of the preamble, regulation, and BID were made available to interested parties via the TTN (see **SUPPLEMENTARY INFORMATION** section of this preamble). A correction notice which addressed minor typographical errors was published in the *Federal Register* on April 3, 1995 (60 FR 16920).

The preamble to the proposed standards provided the public the opportunity to request a public hearing. However, a public hearing was not requested. The public comment period was from March 14, 1995 to May 30, 1995. In all, 117 comment letters were received. The comments have been carefully considered, and changes have been made to the proposed standards when determined by the Administrator to be appropriate.

B. Comments on the Proposed Standards

Comments on the proposed standards were received from 117 commenters; the commenters were comprised of printers, ink manufacturers, State and local air pollution control agencies, trade organizations for printers and control equipment manufacturers, and citizens. A detailed discussion of these comments and responses can be found in the promulgation BID, which is referred to in the **ADDRESSES** section of this preamble. The discussion of comments and responses in the BID serves as the basis for the revisions that have been made to the standards between proposal and promulgation. Many of the comment letters contained multiple comments.

C. Significant Changes

Several significant changes have been made in response to the comments received on the proposed standards. A summary of the major changes is presented below.

(1) Incidental Printing and Ancillary Printing Equipment

The rule affects rotogravure and wide-web flexographic printing operations at major sources. Several commenters noted that this will include facilities that use little or no HAP on rotogravure or wide-web flexographic printing presses, but are major sources as a result of activities conducted on other

equipment in other source categories. In addition, commenters noted that equipment that meets the definition of rotogravure or wide-web flexographic printing press but conducts only a small amount of rotogravure or wide-web flexographic printing operations and is primarily used for coating, laminating, or printing by other processes would have, as proposed, been subject to the standard.

The first case above can be characterized as "incidental printing" because the total work done on rotogravure and wide-web flexographic printing presses at the facility is minimal and is incidental to the other operations conducted at the facility. In the second case above, the equipment can be characterized as "ancillary printing equipment" because the work being done on rotogravure and wide-web flexographic print stations is minimal in comparison to, and ancillary to, the work being done on other work stations (i.e., coating stations) on that equipment.

The EPA has considered control requirements for incidental printing as a separate subgroup. Under the rule, product and packaging rotogravure and wide-web flexographic printing affected sources that apply no more than 500 kilograms of materials each month and that are located at facilities that are major sources of HAP are considered incidental printers. This definition ensures that the total work done on product and packaging rotogravure and wide-web flexographic presses at the facility is minimal and is incidental to the other operations conducted at the facility.

The EPA believes it is appropriate not to subject incidental printing operations to the requirements in § 63.825 that apply to product and packaging rotogravure and wide-web flexographic printing. The EPA's analysis of the MACT floor for product and packaging rotogravure and wide-web flexographic printing is based on emissions levels and control techniques at facilities primarily engaged in printing that generally apply more than 500 kilograms of material each month on product and packaging rotogravure and wide-web flexographic presses. The EPA has little information on which to establish a MACT control level for incidental printing. The available information indicates that the MACT floor for this subgroup is no control.

The final standard includes simplified requirements and does not mandate emission controls for incidental printers. Affected sources within this subgroup are those which apply no more than 500 kilograms of material

each month or no more than 400 kilograms of HAP each month on product and packaging rotogravure and wide-web flexographic presses. The 400 kilogram of HAP applied per month alternative threshold has been included to provide affected sources applying somewhat more than 500 kilograms of material per month with the opportunity to maintain incidental printer status if they reduce the HAP content of the materials applied so that the monthly HAP applied is no more than would be applied by an affected source that applied 500 kilograms of material per month. Affected sources in this subgroup would be subject only to initial notification requirements and recordkeeping requirements to show that one of the thresholds is met every month.

The type of simplified requirements included in the final standard for this subgroup of product and packaging or wide-web flexographic sources were not made available to publication rotogravure affected sources because each press at a publication rotogravure affected source would far exceed the thresholds every month. A single publication rotogravure press would, in fact, be a major source of HAP.

The final standard also permits the owner or operator of a product and packaging rotogravure or wide-web flexographic printing affected source to choose to exclude ancillary printing equipment from the affected source. This equipment is used primarily for coating, laminating, or other operations besides product and packaging rotogravure and wide-web flexographic printing. Presses on which five weight-percent or less of the total material applied each month is applied by rotogravure or wide-web flexographic print stations would be subject only to a simplified recordkeeping requirement. The EPA believes it is appropriate to provide the owner or operator with the option not to subject these presses to the HAP emission limitations for product and packaging and wide-web flexographic printing in § 63.825 because the work being done on the rotogravure and wide-web flexographic print stations on these presses is ancillary to the work being done on other work stations (i.e., coating stations) on these presses. The EPA is separately establishing MACT for other source categories, such as the paper and other web coating source category and the metal coil coating source category, which may be more appropriate for this type of equipment. Ancillary printing equipment, if excluded from this standard, will be subject to the

appropriate source category standard when such a standard is issued.

(2) Research and Laboratory Equipment

Several comments were received requesting exemption of research and laboratory equipment. Commenters noted that the purpose and operation of research presses are independent of their location. One commenter noted that research and laboratory operations could be exempted from this standard and a separate standard for these operations could be developed.

All research and laboratory equipment has been excluded from the final standard whether or not it is collocated with production facilities. In order to regulate research and laboratory equipment, it would be necessary to develop a separate source category as directed by section 112(c)(7) of the CAA to assure equitable treatment of such equipment.

(3) Addition of Presses to Existing Affected Sources

Comments were received concerning triggering of new source compliance deadlines as a result of adding new presses to existing control systems or new stations to existing presses. Commenters noted that this would discourage replacement and modification of presses or stations to take advantage of low-HAP materials.

Addition of presses to existing affected sources will subject the affected source to the compliance deadline for new sources only if the additional press or presses constitutes a reconstruction of the source, as defined in § 63.2. Additions, replacements, and modifications to existing sources which do not meet the definition of reconstruction do not alter the compliance deadline.

(4) Affected Source for Product and Packaging Rotogravure and Wide-web Flexographic Printing Facilities

Comments were received suggesting changes in the definition of affected source at product and packaging rotogravure and wide-web flexographic printing facilities to simplify compliance demonstration. One commenter stated that a facility-wide definition of affected source would significantly cut recordkeeping expenses.

In response, the final standard considers all rotogravure and wide-web flexographic printing equipment at a given facility as a single affected source. This grouping is more consistent with the way that the MACT floor was determined and is consistent with other MACT standards which have grouped

various emission points into a single affected source. It is also more consistent with the definition of affected source for publication rotogravure.

This definition of affected source simplifies reporting and recordkeeping in many cases. In addition, sources may achieve the required emissions reductions by considering emissions from the entire affected source, including controlled and uncontrolled presses. This will allow sources to comply in the most cost-effective way and will not require expensive control equipment for small presses which emit relatively small amounts of organic HAP if equivalent emissions reductions can be achieved elsewhere in the affected source.

(5) Organic HAP Analysis Methods

Ninety-six comments were received requesting that the EPA accept formulation data in lieu of requiring the use of EPA Method 311 to determine organic HAP content of printing materials. Formulation data were preferred to reduce analytical cost and delays due to chemical analysis. Some commenters also suggested various modifications to the proposed analytical technique in the interests of improved accuracy, consistency with apparatus presently in operation, and reduced analytical costs.

The final standard adopts Method 311, as revised and promulgated with the Wood Furniture Manufacturing Operations NESHAP (60 FR 62930), for organic HAP analysis. Printers and ink manufacturers have the option of relying on formulation data if the data meet specified criteria. In the event of any discrepancy between formulation data and the results of EPA Method 311, the results of EPA Method 311 shall be presumed to govern for all compliance purposes. In addition, the printer may determine the total volatile matter content of the material and use this value for the organic HAP content for all compliance purposes. This option may be chosen by printers using materials in which all, or nearly all, of the volatile matter is organic HAP in order to avoid the need for a more time-consuming analytic procedure.

(6) Volatile Matter Analysis Methods

Several comments were received requesting that formulation data be acceptable instead of chemical analysis data. Commenters noted this would greatly reduce analytical costs.

The final standard allows printers and ink manufacturers the option of relying on formulation data for volatile matter and solids content, in lieu of EPA Methods 24 and 24A. In the event of any

discrepancy between formulation data and the results of the EPA test methods, the test methods shall be presumed to govern for all compliance purposes.

(7) Compliance Monitoring for Catalytic Oxidizers

Nine commenters noted that the temperature downstream of a catalytic oxidizer was inappropriate for use as a monitoring parameter to indicate HAP destruction. The commenters noted that downstream temperature parameters established during performance testing under normal conditions might not be maintained during low-load conditions, yet this would not be an indication of excess emissions.

The final standard requires owners or operators using a catalytic oxidizer (that is, a catalytic incinerator) and monitoring an operating parameter to ensure compliance with the standard to monitor the temperature immediately upstream of the catalyst bed. The requirement to monitor the temperature downstream of the catalyst bed has been eliminated. Since the operating parameters are established during a test under normal operating conditions, a downstream temperature monitoring parameter might be impossible to meet during periods when organic loading to the oxidizer was lower than normal. This might have led to exceedances which were not indicative of improper operating conditions or excessive emissions.

(8) Additional Compliance Options for Product and Packaging Rotogravure and Wide-web Flexographic Printing Affected Sources

Several commenters requested clarification that compliance need only be demonstrated by a single procedure appropriate to the source's compliance strategy. Several commenters suggested that the rule should provide a variety of compliance demonstration alternatives to accommodate different aggregations of work stations and HAP control strategies.

In order to make the compliance options consistent with facility-wide definition of affected source, additional means of demonstrating compliance have been added to the final rule. Facilities may demonstrate that each material applied meets either of the organic HAP thresholds, or that all materials on average meet either of the organic HAP thresholds, or that the organic HAP emitted is less than the organic HAP allowed taking these thresholds into account. In addition, emissions from controlled and uncontrolled presses are aggregated to

determine compliance across the entire affected source.

The final rule has been expanded to include ten procedures under which compliance can be demonstrated under different circumstances. Any one of the ten procedures can be used. These procedures are consistent with the proposed standards for low HAP materials and HAP emission control device operation. These procedures encompass the range of suggestions made by the commenters. The new compliance demonstration procedures in the final rule are expected to have a negligible impact on HAP emissions compared to the provisions in the proposed rule.

(9) Capture Efficiency Protocols and Test Methods

Four commenters requested that the rule allow the use of alternate capture efficiency test protocols approved by the EPA in lieu of the procedures specified in § 52.741.

The final rule includes additional options for capture efficiency tests. Provisions of the proposed rule pertaining to verification of permanent total enclosures and temporary total enclosure capture efficiency testing in accordance with § 52.741 have been retained in the final rule. The final rule also allows, as an alternative, the use of any capture efficiency protocol and test methods which satisfy the criteria of either the Data Quality Objective or Lower Confidence Limit approaches. An appendix describing these approaches has been added to the final rule. The use of these alternative approaches is optional for the owner or operator of the affected source and the EPA has determined that capture efficiency tests satisfying the criteria of these alternate approaches will be sufficiently rigorous to ensure compliance with the standard.

(10) Transition from Area Source to Major Source Status

A commenter requested that a provision allowing a transition period for a newly designated major source to come into compliance be incorporated in the rule. The commenter noted that the proposed rule had no provisions for a source to make this transition without being in violation of the standard.

A provision has been added to the final rule which provides a mechanism for owners or operators that have used the provisions of § 63.820(a)(2) to establish the facility as an area source to reestablish the facility as a major source. Such a source must continue to comply with its HAP usage commitments until it meets all requirements for major sources.

(11) Definition of "Month"

In response to a comment, the definition of "month" in the final rule has been changed to include prespecified periods of 28 to 35 days. The revised definition will fit better with the materials accounting systems used by some facilities and have little or no effect on the emission reduction achieved by the standard.

(12) Alternatives to Vent Stream Flow Rate Monitoring

Seven commenters requested inclusion of alternative methods for vent stream flow rate monitoring, substitution of flow indicators rather than flow meters, or elimination of the flow rate monitoring requirement. One commenter recommended that press interlocks be permitted as an alternative to vent stream flow rate monitoring.

The final regulation includes alternatives to the vent stream flow rate measurement requirement. These alternatives are simpler than the requirements in the proposed rule, but still ensure that sufficient records will be generated to show when HAP containing vent streams are being delivered to a control device and to allow for proper calculation of HAP emissions. Owners or operators of product and packaging rotogravure or wide-web flexographic presses with intermittently-controllable work stations may, as alternatives to measuring vent stream flow rate, install flow indicators on the bypass lines, secure bypass line valves with locking mechanisms or car seals, continuously monitor bypass valve position, or equip the press with an interlock preventing operation when the control device is bypassed. Sampling lines for gas analyzers and relief valves needed for safety purposes are not considered bypass lines for the purposes of these provisions. Presses that do not have any intermittently-controllable work stations are not subject to these provisions.

(13) Provisions for Inclusion of Stand-alone Coating Equipment in Affected Source

One comment was received suggesting that off-line coaters sharing a common control device with printing presses should be included in the affected source at the discretion of the facility. It was noted that such a provision would avoid penalizing facilities that had tightened up their control systems by tying in other sources of HAP.

Provisions have been added to the final rule through which owners or operators of affected sources may

their option, under certain conditions, include stand-alone coating equipment in the affected source subject to this standard. This type of coating equipment is expected to be covered by one of several MACT standards (e.g., Paper and Other Web Coating) which are scheduled to be promulgated in the future. Printers choosing this option may avoid the difficulty of complying with multiple standards in the future. Stand-alone coating equipment must meet certain requirements to be eligible for inclusion under this provision. To be eligible, stand-alone coating equipment must either share a control device with a press included in the affected source, or process the same substrate as a press included in the affected source, or apply one or more of the same solids-containing materials as a press included in the affected source. If any eligible equipment is included under this provision, all eligible equipment at the facility must be included.

(14) Addition of Criteria To Determine Whether Method 25 or Method 25A is Appropriate for Performance Testing

The proposed rule required that performance tests employ either Method 25 or 25A, as appropriate to the conditions of the site. The final rule has been clarified to specify the conditions based on the required or anticipated organic volatile matter concentration at the exhaust from the control device. These conditions are based on guidance provided to regional offices and State programs, and clarify the conditions under which Method 25A are appropriate. This will reduce the administrative burden on some sources and will not reduce the stringency of the rule.

(15) Conditions Under Which Performance Test Is To Be Conducted

One commenter recommended testing under reasonably expected conditions and a second commenter recommended testing under normal conditions instead of maximum conditions.

The final rule has been made consistent with the General Provisions to require performance testing under "normal operating conditions" rather than "maximum capacity." This will result in establishment of more representative operating parameters and will not cause an increase in HAP emissions.

(16) Clarification of Reporting and Recordkeeping Requirements

Several comments were received requesting clarification that only recordkeeping and reporting applicable to the specific control strategy employed

were required. One commenter stated that area sources should be required to submit initial notifications so that States would be advised of their operations.

The final rule enumerates the types of excess emissions (including operating parameter exceedences) which must be included, as applicable, in the summary report. Recordkeeping requirements for incidental printing, ancillary printing equipment, and optional inclusion of stand-alone coating equipment have been added to the final rule.

The requirement for annual reporting of HAP usage by sources using the optional provisions of this rule to establish area source status has been eliminated from the final rule. A less burdensome requirement that such sources submit initial notifications has been added to the final rule. This initial notification will inform the Administrator that a source is using these optional provisions to establish area source status. The annual report was determined to be unnecessary because the source is required to maintain monthly records of HAP usage and to report any 12 month period in which the area source commitment is not met as part of its summary report.

D. Minor Changes

This section contains a list of several of the minor changes to the final rule.

(1) Revisions to definitions and phrasing have been made to clarify the regulation.

(2) Variables have been redefined as necessary to avoid ambiguity, and additional variables have been defined where necessary to explicitly describe the additional compliance options available in the final rule.

(3) Typographical errors have been corrected.

(4) The citation of the basis for delegation of regulatory authority has been corrected.

(5) The summary table in the proposed rule has been eliminated. (The General Provisions cross reference table has been retained and additional clarifying notes have been added.)

(6) Language has been added to the final rule which clarifies that the optional area source mechanism included in the rule does not preclude an owner or operator from taking advantage of other mechanisms which are available to establish area source status.

(7) A provision in the proposed rule requiring owners or operators of affected sources to obtain part 70 or part 71 operating permits has been eliminated from the final rule because this provision may have been inadvertently interpreted to require these permits for

sources which used the optional provisions of the rule to establish area source status. Such sources may be required to obtain such permits, but are not required to obtain them as a result of using the optional provision in this standard.

(8) The deadline for initial notification for existing sources has been extended until one year before the compliance date.

V. Administrative Requirements

A. Docket

The Docket is an organized and complete file of all the information considered by the EPA in the development of this rulemaking. The Docket is a dynamic file, since material is added throughout the rulemaking development. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. The contents of the Docket, including the BID for the proposed and promulgated standards and the EPA responses to significant comments, will serve as the record in case of judicial review (see 42 U.S.C. 7607(d)(7)(A)).

B. Paperwork Reduction Act

The Office of Management and Budget (OMB) has approved the information collection requirements contained in this rule under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, and has assigned OMB control number 2060-0335. The EPA is therefore amending the table of currently approved information collection request (ICR) control numbers issued by OMB for various regulations. This amendment updates the table to accurately display those information requirements contained in this final rule. This display of the OMB control number and its subsequent codification in the Code of Federal Regulations satisfies the requirements of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*) and OMB's implementing regulations at 5 CFR part 1320.

The ICR was previously subject to public notice and comment prior to OMB approval. As a result, the EPA finds that there is "good cause" under section 553(b) of the Administrative Procedure Act (5 U.S.C. 553(b)) to amend the table in part 9 without prior notice and comment. Due to the technical nature of the table, further notice and comment would be unnecessary. For the same reasons, the EPA finds that there is good cause under 5 U.S.C. 553(d)(3).

The information required to be collected by this rule is necessary to identify the regulated entities who are subject to the rule and to ensure their compliance with the rule. The recordkeeping and reporting requirements are mandatory and are being established under authority of section 114 of the CAA. All information submitted to the EPA for which a claim of confidentiality is made will be safeguarded according to the EPA policies set forth in title 40, part 2, subpart B—Confidentiality of Business Information.

The total annual reporting and recordkeeping burden for this collection averaged over the first three years is estimated to be 89,965 hours per year. The average burden, per respondent, is, 164 hours per year. The rule requires an initial one-time notification from each respondent and subsequent reports/ notification would have to be submitted semiannually. Respondents operating capture systems and control devices would also be required to submit notifications of performance tests, performance test plans and reports of performance tests. There would be an estimated 500 respondents to the collection requirements. This estimate 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 methods for compliance 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.

Send comments on the EPA's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques, to the Director, OPPE Regulatory Information Division; U.S. Environmental Protection Agency (2136), 401 M St. SW., Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th St. NW, Washington, DC 20503; marked "Attention: Desk Officer for EPA." Include the OMB control number in any correspondence.

C. Executive Order 12866: Administrative Designation and Regulatory Analysis

Under Executive Order 12866 (58 FR 51735 (October 4, 1993)), the EPA is required to judge whether a regulation is "significant" and therefore subject to OMB review and the requirements of this executive order to prepare a regulatory impact analysis (RIA). The 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 has notified the 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.

D. Executive Order 12875

To reduce the burden of Federal regulations on States and small governments, the President issued Executive Order 12875 on October 26, 1993, entitled *Enhancing the Intergovernmental Partnership*. In particular, this executive order is designed to require agencies to assess the effects of regulations that are not required by statute and that create mandates upon State, local, or tribal governments. Two methods exist for complying with the requirements of the executive order: (1) Assure that funds necessary to pay direct costs of compliance with a regulation are provided, or (2) provide OMB a description of the communications and consultations with State/local/tribal governments, the nature of their concerns, any written submission from them, and the EPA's position supporting the need to issue the regulation.

The EPA has always been concerned about the effect of the cost of regulations

on small entities; the EPA has consulted with and sought input from public entities to explain costs and burdens they may incur.

The EPA advised interested parties on July 18, 1992 (57 FR 21502), of the categories considered as major and area sources of HAP, and the printing/publishing (surface coating) industry was listed as a category of both major and area sources. The EPA made significant effort to hear from all levels of interest and all segments of the rotogravure and wide-web flexographic printing industry. To facilitate comments and input, the EPA participated in numerous meetings with trade organizations representing all industry sectors affected by this rule. Throughout the regulatory development process, and more specifically, in consultation meetings, industry representatives from printing companies, ink manufacturers, and various trade associations were given an opportunity to comment on the proposed regulatory approach and the MACT alternatives being developed. The major topic areas resulting from these discussions included industry segmentation, the determination of the MACT floor, test methods, monitoring procedures, facility-wide averaging, compliance deadlines, and pollution prevention. Documentation of all meetings and public comments can be found in Docket A-92-42.

Representatives of State and local air pollution control agencies participated in all of the EPA work group meetings, and several State and local agencies submitted public comments in response to the proposed standards.

The EPA has considered the purpose and intent of Executive Order 12875 and has determined that printing and publishing NESHAP are needed. The rule is generally required by statute under section 112 of the CAA because printing and publishing facilities emit significant quantities of air pollutants. Through meetings and consultations during project development and proposal, efforts were made to inform entities of the costs required to comply with the regulation; in addition, modifications were made to reduce the burden to small entities.

E. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires the EPA to consider potential impacts of proposed regulations on small business "entities." If a preliminary analysis indicates that a proposed regulation would have a significant economic impact on 20 percent or more of small entities, then a final Regulatory Flexibility Analysis

(RFA) must be prepared. The EPA's analysis of these impacts was summarized in the preamble to the proposed rule (60 FR 13664).

In addition, the EPA has a set of **Regulatory Flexibility Guidelines (REG)**, published in April 1992, that require the EPA to conduct a final RFA if any small business or small entity impacts occur resulting from a rule whose Start Action Notice (SAN) is approved after the date of publication of the EPA REG. The SAN for this rule was approved before that date, thus the former Regulatory Flexibility Act guidelines hold. An RFA was conducted, however, as part of the larger economic impact analysis whose results were presented in the preamble to the proposed rule. The RFA prepared meets the EPA REG as well as the original Regulatory Flexibility Act Guidelines. It also meets the analytical requirements of the Small Business Regulatory Enforcement Fairness Act of 1996.

This analysis found that the proposed rule would not have a significant economic impact on a substantial number of small entities. No comments were received on this analysis. The changes made in the final rule reduce the cost of achieving and demonstrating compliance for affected small and large entities. Therefore, pursuant to the provisions of 5 U.S.C. 605(b), I hereby certify that this rule will not have a significant economic impact on a substantial number of small business entities.

F. Unfunded Mandates Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Pub.L. 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 to State, local, and tribal governments, in the aggregate, or to 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 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 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 the 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 action promulgated today does not include a Federal mandate that may result in estimated costs of \$100 million or more in any one year to either 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.

G. Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA)

Pursuant to Subtitle E of SBREFA, this rule, which is nonmajor, was submitted to Congress before publication in the Federal Register.

List of Subjects in 40 CFR parts 9 and 63

Environmental protection, Air pollution control, Hazardous substances, Reporting and recordkeeping requirements, Standard for printing and publishing industry.

Dated: May 15, 1996.

Carol M. Browner,
Administrator.

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

PART 9—[AMENDED]

1. The authority citation for Part 9 continues to read as follows:

Authority: 7 U.S.C. 135 *et seq.*, 136–136y; 15 U.S.C. 2001, 2003, 2005, 2006, 2601–2671; 21 U.S.C. 331j, 346a, 348; 31 U.S.C. 9701; 33 U.S.C. 1251 *et seq.*, 1311, 1313(d), 1314, 1318, 1321, 1326, 1330, 1342, 1344, 1345(d) and (e), 1361; E.O. 11735, 38 FR 21243, 3 CFR, 1971–1975 Comp. p. 973; 42 U.S.C. 241, 242b, 243, 246, 300f, 300g, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–1, 300j–2, 300j–3, 300j–4, 300j–9, 1857 *et seq.*, 6901–6992k, 7401–7671q, 7542, 9601–9657, 11023, 11048.

2. Section 9.1 is amended by adding a new entry to the table under the indicated heading in numerical order to read as follows:

§ 9.1—OMB approvals under the Paperwork Reduction Act.

40 CFR citation	OMB control No.
National Emission Standards for Hazardous Air Pollutants for Source Categories ¹³	
63.829–63.830	2060–0335

¹³ The ICs referenced in this section of the table encompass the applicable general provisions contained in 40 CFR part 63, subpart A, which are not independent information collection requirements.

PART 63—[AMENDED]

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

Authority: Secs. 101, 112, 114, 116, 183(f) and 301 of the CAA, as amended (42 U.S.C. 7401, 7411, 7414, 7416, 7511b(f), 7601).

2. Part 63 is amended by adding a new subpart KK consisting of §§ 63.820 through 63.839 to read as follows:

Subpart KK—National Emission Standards for the Printing and Publishing Industry

Sec.	
63.820	Applicability.
63.821	Designation of affected sources.
63.822	Definitions.
63.823	Standards: General.
63.824	Standards: Publication rotogravure printing.
63.825	Standards: Product and packaging rotogravure and wide-web flexographic printing.
63.826	Compliance dates.
63.827	Performance test methods.
63.828	Monitoring requirements.
63.829	Recordkeeping requirements.
63.830	Reporting requirements.
63.831	Delegation of Authority.
63.832–63.839	[Reserved]

Table 1 to Subpart KK—Applicability of General Provisions to Subpart KK

Appendix A to Subpart KK—Data Quality Objective and Lower Confidence Limit Approaches for Alternative Capture Efficiency Protocols and Test Methods

Subpart KK—National Emission Standards for the Printing and Publishing Industry

§ 63.820 Applicability.

(a) The provisions of this subpart apply to:

(1) Each new and existing facility that is a major source of hazardous air

pollutants (HAP), as defined in 40 CFR 63.2, at which publication rotogravure, product and packaging rotogravure, or wide-web flexographic printing presses are operated, and

(2) each new and existing facility at which publication rotogravure, product and packaging rotogravure, or wide-web flexographic printing presses are operated for which the owner or operator chooses to commit to, and meets the criteria of paragraphs (a)(2)(i) and (a)(2)(ii) of this section for purposes of establishing the facility to be an area source with respect to this subpart:

(i) Use less than 9.1 Mg (10 tons) per each rolling 12-month period of each HAP at the facility, including materials used for source categories or purposes other than printing and publishing, and

(ii) Use less than 22.7 Mg (25 tons) per each rolling 12-month period of any combination of HAP at the facility, including materials used for source categories or purposes other than printing and publishing.

(3) Each facility for which the owner or operator chooses to commit to and meets the criteria stated in paragraph (a)(2) of this section shall be considered an area source, and is subject only to the provisions of § 63.829(d) and § 63.830(b)(1) of this subpart.

(4) Each facility for which the owner or operator commits to the conditions in paragraph (a)(2) of this section may exclude material used in routine janitorial or facility grounds maintenance, personal uses by employees or other persons, the use of products for the purpose of maintaining electric, propane, gasoline and diesel powered motor vehicles operated by the facility, and the use of HAP contained in intake water (used for processing or noncontact cooling) or intake air (used either as compressed air or for combustion).

(5) Each facility for which the owner or operator commits to the conditions in paragraph (a)(2) of this section to become an area source, but subsequently exceeds either of the thresholds in paragraph (a)(2) of this section for any rolling 12-month period (without first obtaining and complying with other limits that keep its potential to emit HAP below major source levels), shall be considered in violation of its commitment for that 12-month period and shall be considered a major source of HAP beginning the first month after the end of the 12-month period in which either of the HAP-use thresholds was exceeded. As a major source of HAP, each such facility would be subject to the provisions of this subpart as noted in paragraph (a)(1) of this section and would no longer be eligible

to use the provisions of paragraph (a)(2) of this section, even if in subsequent 12-month periods the facility uses less HAP than the thresholds in paragraph (a)(2) of this section.

(6) An owner or operator of an affected source subject to paragraph (a)(2) of this section who chooses to no longer be subject to paragraph (a)(2) of this section shall notify the Administrator of such change. If, by no longer being subject to paragraph (a)(2) of this section, the facility at which the affected source is located becomes a major source:

(i) The owner or operator of an existing source must continue to comply with the HAP usage provisions of paragraph (a)(2) of this section until the source is in compliance with all relevant requirements for existing affected sources under this subpart;

(ii) The owner or operator of a new source must continue to comply with the HAP usage provisions of paragraph (a)(2) of this section until the source is in compliance with all relevant requirements for new affected sources under this subpart.

(7) Nothing in this paragraph is intended to preclude a facility from establishing area source status by limiting its potential to emit through other appropriate mechanisms that may be available through the permitting authority.

(b) This subpart does not apply to research or laboratory equipment.

§ 63.821 Designation of affected sources.

(a) The affected sources subject to this subpart are:

(1) All of the publication rotogravure presses and all affiliated equipment, including proof presses, cylinder and parts cleaners, ink and solvent mixing and storage equipment, and solvent recovery equipment at a facility.

(2) All of the product and packaging rotogravure or wide-web flexographic printing presses at a facility plus any other equipment at that facility which the owner or operator chooses to include in accordance with paragraph (a)(3) of this section, except

(i) Proof presses, and

(ii) Any product and packaging rotogravure or wide-web flexographic press which is used primarily for coating, laminating, or other operations which the owner or operator chooses to exclude, provided that

(A) The sum of the total mass of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, and other materials applied by the press using product and packaging rotogravure work stations and the total mass of inks, coatings, varnishes, adhesives, primers,

solvents, thinners, reducers, and other materials applied by the press using wide-web flexographic print stations in each month never exceeds five weight-percent of the total mass of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, and other materials applied by the press in that month, including all inbound and outboard stations, and

(B) The owner or operator maintains records as required in § 63.829(f).

(3) The owner or operator of an affected source, as defined in paragraph (a)(2) of this section, may elect to include in that affected source stand-alone coating equipment subject to the following provisions:

(i) Stand-alone coating equipment meeting any of the criteria specified in this subparagraph is eligible for inclusion:

(A) The stand-alone coating equipment and one or more product and packaging rotogravure or wide-web flexographic presses are used to apply solids-containing materials to the same web or substrate, or

(B) The stand-alone coating equipment and one or more product and packaging rotogravure or wide-web flexographic presses apply a common solids-containing material, or

(C) A common control device is used to control organic HAP emissions from the stand-alone coating equipment and from one or more product and packaging rotogravure or wide-web flexographic printing presses;

(ii) All eligible stand-alone coating equipment located at the facility is included in the affected source; and

(iii) No product and packaging rotogravure or wide-web flexographic presses are excluded from the affected source under the provisions of paragraph (a)(2)(ii) of this section.

(b) Each product and packaging rotogravure or wide-web flexographic printing affected source at a facility that is a major source of HAP, as defined in 40 CFR 63.2, that complies with the criteria of paragraphs (b)(1) or (b)(2) on and after the applicable compliance date as specified in § 63.826 of this subpart is subject only to the requirements of § 63.829(e) and § 63.830(b)(1) of this subpart.

(1) The owner or operator of the source applies no more than 500 kg per month, for every month, of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, and other materials on product and packaging rotogravure or wide-web flexographic printing presses, or

(2) The owner or operator of the source applies no more than 400 kg per month, for every month, of organic HAP

on product and packaging rotogravure or wide-web flexographic printing presses.

(c) Each product and packaging rotogravure or wide-web flexographic printing affected source at a facility that is a major source of HAP, as defined in 40 CFR 63.2, that complies with neither the criterion of paragraph (b)(1) nor (b)(2) of this section in any month after the applicable compliance date as specified in § 63.826 of this subpart is, starting with that month, subject to all relevant requirements of this subpart and is no longer eligible to use the provisions of paragraph (b) of this section, even if in subsequent months the affected source does comply with the criteria of paragraphs (b)(1) or (b)(2) of this section.

§ 63.822. Definitions.

(a) All terms used in this subpart that are not defined below have the meaning given to them in the CAA and in subpart A of this part.

Always-controlled work station means a work station associated with a dryer from which the exhaust is delivered to a control device, with no provision for the dryer exhaust to bypass the control device. Sampling lines for analyzers and relief valves needed for safety purposes are not considered bypass lines.

Capture efficiency means the fraction of all organic HAP emissions generated by a process that are delivered to a control device, expressed as a percentage.

Capture system means a hood, enclosed room, or other means of collecting organic HAP emissions into a closed-vent system that exhausts to a control device.

Car-seal means a seal that is placed on a device that is used to change the position of a valve or damper (e.g., from open to closed) in such a way that the position of the valve or damper cannot be changed without breaking the seal.

Certified product data sheet (CPDS) means documentation furnished by suppliers of inks, coatings, varnishes, adhesives, primers, solvents, and other materials or by an outside laboratory that provides the organic HAP content of these materials, by weight, measured using Method 311 of appendix A of this Part 63 or an equivalent or alternative method (or formulation data as provided in § 63.827(b)) and the solids content of these materials, by weight, determined in accordance with § 63.827(c). The purpose of the CPDS is to assist the owner or operator in demonstrating compliance with the emission limitations presented in §§ 63.824–63.825.

Coating operation means the application of a uniform layer of material across the entire width of a substrate.

Coating station means a work station on which a coating operation is conducted.

Control device means a device such as a carbon adsorber or oxidizer which reduces the organic HAP in an exhaust gas by recovery or by destruction.

Control device efficiency means the ratio of organic HAP emissions recovered or destroyed by a control device to the total HAP emissions that are introduced into the control device, expressed as a percentage.

Day means a 24-consecutive-hour period.

Facility means all contiguous or adjoining property that is under common ownership or control, including properties that are separated only by a road or other public right-of-way.

Flexographic press means an unwind or feed section, a series of individual work stations, one or more of which is a flexographic print station, any dryers (including interstage dryers and overhead tunnel dryers) associated with the work stations, and a rewind, stack, or collection station. The work stations may be oriented vertically, horizontally, or around the circumference of a single large impression cylinder. Inboard and outboard work stations, including those employing any other technology, such as rotogravure, are included if they are capable of printing or coating on the same substrate.

Flexographic print station means a work station on which a flexographic printing operation is conducted. A flexographic print station includes a flexographic printing plate which is an image carrier made of rubber or other elastomeric material. The image (type and art) to be printed is raised above the printing plate.

HAP applied means the organic HAP content of all inks, coatings, varnishes, adhesives, primers, solvent, and other materials applied to a substrate by a product and packaging rotogravure or wide-web flexographic printing affected source.

HAP used means the organic HAP applied by a publication rotogravure printing affected source, including all organic HAP used for cleaning, parts washing, proof presses, and all organic HAP emitted during tank loading, ink mixing, and storage.

Intermittently-controllable work station means a work station associated with a dryer with provisions for the dryer exhaust to be delivered to or diverted from a control device

depending on the position of a valve or damper. Sampling lines for analyzers and relief valves needed for safety purposes are not considered bypass lines.

Month means a calendar month or a prespecified period of 28 days to 35 days.

Never-controlled work station means a work station which is not equipped with provisions by which any emissions, including those in the exhaust from any associated dryer, may be delivered to a control device.

Overall Organic HAP control efficiency means the total efficiency of a control system, determined either by:

(1) The product of the capture efficiency and the control device efficiency or

(2) A liquid-liquid material balance.

Print station means a work station on which a printing operation is conducted.

Printing operation means the formation of words, designs, and pictures on a substrate other than fabric through the application of material to that substrate.

Product and packaging rotogravure printing means the production, on a rotogravure press, of any printed substrate not otherwise defined as publication rotogravure printing. This includes, but is not limited to, folding cartons, flexible packaging, labels and wrappers, gift wraps, wall and floor coverings, upholstery, decorative laminates, and tissue products.

Proof press means any device used only to check the quality of the image formation of rotogravure cylinders or flexographic plates, which prints only non-saleable items.

Publication rotogravure printing means the production, on a rotogravure press, of the following saleable paper products:

- (1) Catalogues, including mail order and premium,
- (2) Direct mail advertisements, including circulars, letters, pamphlets, cards, and printed envelopes,
- (3) Display advertisements, including general posters, outdoor advertisements, car cards, window posters; counter and floor displays; point of purchase and other printed display material,
- (4) Magazines,
- (5) Miscellaneous advertisements, including brochures, pamphlets, catalog sheets, circular folders, announcements, package inserts, book jackets, market circulars, magazine inserts, and shopping news,
- (6) Newspapers, magazine and comic supplements for newspapers, and preprinted newspaper inserts, including hi-fi and spectacolor rolls and sections,

(7) Periodicals, and

(8) Telephone and other directories, including business reference services.

Research or laboratory equipment means any equipment for which the primary purpose is to conduct research and development into new processes and products, where such equipment 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 manner.

Rotogravure press means an unwind or feed section, a series of one or more work stations, one or more of which is a rotogravure print station, any dryers associated with the work stations, and a rewind, stack, or collection section. Inboard and outboard work stations including those employing any other technology, such as flexography, are included if they are capable of printing or coating on the same substrate.

Rotogravure print station means a work station on which a rotogravure printing operation is conducted. A rotogravure print station includes a rotogravure cylinder and ink supply. The image (type and art) to be printed is etched or engraved below the surface of the rotogravure cylinder. On a rotogravure cylinder the printing image consists of millions of minute cells.

Stand-alone coating equipment means an unwind or feed section, a series of one or more coating stations and any associated dryers, and a rewind, stack or collection section that:

Is not part of a product and packaging rotogravure or wide-web flexographic press, and

Is used to conduct one or more coating operations on a substrate. Stand-alone coating equipment

May or may not process substrate that is also processed by a product and packaging rotogravure or wide-web flexographic press, apply solids-containing materials that are also applied by a product and packaging rotogravure or wide-web flexographic press, and utilize a control device that is also utilized by a product and packaging rotogravure or wide-web flexographic press. Stand-alone coating equipment is sometimes referred to as "off-line" coating equipment.

Wide-web flexographic press means a flexographic press capable of printing substrates greater than 18 inches in width.

Work station means a unit on a rotogravure or wide-web flexographic press where material is deposited onto a substrate.

(b) The symbols used in equations in this subpart are defined as follows:

(1) C_{HAP} = the monthly average, as-applied, organic HAP content of solids-containing material, i , expressed as a weight-fraction, kg/kg.

(2) C_{HAP} = the monthly average, as-applied, solids content, of solids-containing material, i , expressed as a weight-fraction, kg/kg.

(3) C_{HAP} = the organic HAP content of ink or other solids-containing material, i , expressed as a weight-fraction, kg/kg.

(4) C_{HAP} = the organic HAP content of solvent j , added to solids-containing material i , expressed as a weight-fraction, kg/kg.

(5) C_{HAP} = the organic HAP content of solvent j , expressed as a weight-fraction, kg/kg.

(6) C_v = the organic volatile matter concentration in ppm, dry basis, of compound i in the vent gas, as determined by Method 25 or Method 25A.

(7) C_{HAP} = the solids content of ink or other material, i , expressed as a weight-fraction, kg/kg.

(8) C_v = the volatile matter content of ink or other material, i , expressed as a weight-fraction, kg/kg.

(9) E = the organic volatile matter control efficiency of the control device, percent.

(10) F = the organic volatile matter capture efficiency of the capture system, percent.

(11) G_i = the mass fraction of each solids containing material, i , which was applied, at 20 weight-percent or greater solids content, on an as-applied basis, kg/kg.

(12) H = the total monthly organic HAP applied, kg.

(13) H_a = the monthly allowable organic HAP emissions, kg.

(14) H_{HAP} = the monthly average, as-applied, organic HAP content of all solids-containing materials applied at less than 0.04 kg organic HAP per kg of material applied, kg/kg.

(15) H_{HAP} = the monthly average, as-applied, organic HAP to solids ratio, kg organic HAP/kg solids applied.

(16) H_{HAP} = the as-applied, organic HAP to solids ratio of material i .

(17) L = the mass organic HAP emission rate per mass of solids applied, kg/kg.

(18) M_{B_i} = the sum of the mass of solids-containing material, i , applied on intermittently-controllable work stations operating in bypass mode and the mass of solids-containing material, i , applied on never-controlled work stations, in a month, kg.

(19) M_{B_j} = the sum of the mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j , applied on intermittently-controllable work stations operating in bypass mode

and the mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j , applied on never-controlled work stations, in a month, kg.

(20) M_{C_i} = the sum of the mass of solids-containing material, i , applied on intermittently-controllable work stations operating in controlled mode and the mass of solids-containing material, i , applied on always-controlled work stations, in a month, kg.

(21) M_{C_j} = the sum of the mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j , applied on intermittently-controllable work stations operating in controlled mode and the mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j , applied on always-controlled work stations in a month, kg.

(22) M_{HAP} = the total organic volatile matter mass flow rate, kg/h.

(23) M_{HAP} = the organic volatile matter mass flow rate at the inlet to the control device, kg/h.

(24) M_{HAP} = the organic volatile matter mass flow rate at the outlet of the control device, kg/h.

(25) M_{HAP} = the mass of organic HAP used in a month, kg.

(26) M_i = the mass of ink or other material, i , applied in a month, kg.

(27) M_j = the mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j , added to solids-containing material, i , in a month, kg.

(28) M_j = the mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j , applied in a month, kg.

(29) M_{L_j} = the mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j , added to solids-containing materials which were applied at less than 20 weight-percent solids content, on an as-applied basis, in a month, kg.

(30) M_v = the mass of volatile matter recovered in a month, kg.

(31) M_{HAP} = the mass of volatile matter, including water, used in a month, kg.

(32) MW_i = the molecular weight of compound i in the vent gas, kg/kg-mol.

(33) n = the number of organic compounds in the vent gas.

(34) p = the number of different inks, coatings, varnishes, adhesives, primers, and other materials applied in a month.

(35) q = the number of different solvents, thinners, reducers, diluents, or other non-solids-containing materials applied in a month.

(36) Q_{HAP} = the volumetric flow rate of gases entering or exiting the control device, as determined by Method 2, dscm/h.

(37) R = the overall organic HAP control efficiency, percent.

(38) R_e = the overall effective organic HAP control efficiency for publication rotogravure, percent.

(39) R_v = the organic volatile matter collection and recovery efficiency, percent.

(40) S = the mass organic HAP emission rate per mass of material applied, kg/kg.

(41) 0.0416 = conversion factor for molar volume, kg-mol/m³ @ 293 K and 760 mmHg).

§ 63.823 Standards: General.

Table 1 to this subpart provides cross references to the 40 CFR part 63, subpart A, general provisions, indicating the applicability of the general provisions requirements to this subpart KK.

§ 63.824 Standards: Publication rotogravure printing.

(a) Each owner or operator of any publication rotogravure printing affected source that is subject to the requirements of this subpart shall comply with these requirements on and after the compliance dates as specified in § 63.826 of this subpart.

(b) Each publication rotogravure affected source shall limit emissions of

organic HAP to no more than eight percent of the total volatile matter used each month. The emission limitation may be achieved by overall control of at least 92 percent of organic HAP used by substitution of non-HAP materials for organic HAP, or by a combination of capture and control technologies and substitution of materials. To demonstrate compliance, each owner or operator shall follow the procedure in paragraph (b)(1) of this section when emissions from the affected source are controlled by a solvent recovery device, the procedure in paragraph (b)(2) of this section when emissions from the affected source are controlled by an oxidizer, and the procedure in paragraph (b)(3) of this section when no control device is used.

(1) Each owner or operator using a solvent recovery device to control emissions shall demonstrate compliance by showing that the HAP emission limitation is achieved by following the procedures in either paragraph (b)(1)(i) or (b)(1)(ii) of this section:

(i) Perform a liquid-liquid material balance for each month as follows:

(A) Measure the mass of each ink, coating, varnish adhesive, primer,

solvent, and other material used by the affected source during the month.

(B) Determine the organic HAP content of each ink, coating, varnish, adhesive, primer, solvent and other material used by the affected source during the month following the procedure in § 63.827(b)(1).

(C) Determine the volatile matter content, including water, of each ink, coating, varnish, adhesive, primer, solvent, and other material used by the affected source during the month following the procedure in § 63.827(c)(1).

(D) Install, calibrate, maintain and operate, according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile matter recovered by the solvent recovery device on a monthly basis. The device shall be initially certified by the manufacturer to be accurate to within ± 2.0 percent.

(E) Measure the amount of volatile matter recovered for the month.

(F) Calculate the overall effective organic HAP control efficiency (R_e) for the month using Equation 1:

$$R_e = (100) \frac{M_{vu} - M_{hu} + [(M_{vr})(M_{hu} / M_{vu})]}{M_{vu}}$$

Eq 1

For the purposes of this calculation, the mass fraction of organic HAP present in the recovered volatile matter is assumed to be equal to the mass fraction of organic HAP present in the volatile matter used.

(C) The affected source is in compliance for the month, if R_e is at least 92 percent each month.

(ii) Use continuous emission monitors, conduct an initial performance test of capture efficiency, and continuously monitor a site specific

operating parameter to assure capture efficiency as specified in paragraphs (b)(1)(ii)(A) through (b)(1)(ii)(E) of this section:

(A) Install continuous emission monitors to determine the total organic volatile matter mass flow rate (e.g., by determining the concentration of the vent gas in grams per cubic meter, and the volumetric flow rate in cubic meters per second, such that the total organic volatile matter mass flow rate in grams per second can be calculated and

summed) at both the inlet to and the outlet from the control device, such that the percent control efficiency (E) of the control device can be calculated for each month.

(B) Determine the percent capture efficiency (F) of the capture system according to § 63.827(e).

(C) Calculate the overall effective organic HAP control efficiency (R_e) achieved for each month using Equation 2.

$$R_e = (100) \frac{M_{vu} - M_{hu} + [(E/100)(F/100)M_{hu}]}{M_{vu}}$$

Eq 2

(D) Install, calibrate, operate and maintain the instrumentation necessary to measure continuously the site-specific operating parameter established in accordance with § 63.828(a)(5) whenever a publication rotogravure printing press is operated.

(E) The affected source is in compliance with the requirement for the month if R_e is at least 92 percent, and

the capture device is operated at an average value greater than, or less than (as appropriate) the operating parameter value established in accordance with § 63.828(a)(5) for each three-hour period.

(2) Each owner or operator using an oxidizer to control emissions shall demonstrate compliance by showing that the HAP emission limitation is

achieved by following the procedure in either paragraph (b)(2)(i) or (b)(2)(ii) of this section:

(i) Demonstrate initial compliance through performance tests and continuing compliance through continuous monitoring as follows:

(A) Determine the oxidizer destruction efficiency (E) using the procedure in § 63.827(d).

(B) Determine the capture efficiency (F) using the procedure in § 63.827(e).

(D) Calculate the overall effective organic HAP control efficiency (R_e) achieved using Equation 2:

(E) The affected source is in initial compliance if R_e is at least 92 percent. Demonstration of continuing compliance is achieved by continuous monitoring of an appropriate oxidizer operating parameter in accordance with § 63.828(a)(4), and by continuous monitoring of an appropriate capture system monitoring parameter in accordance with § 63.828(a)(5). The affected source is in continuing compliance if the capture device is operated at an average value greater than or less than (as appropriate) the operating parameter value established in accordance with § 63.828(a)(5), and

(1) if an oxidizer other than a catalytic oxidizer is used, the average combustion temperature for all three-hour periods is greater than or equal to the average combustion temperature established under § 63.827(d), or

(2) if a catalytic oxidizer is used, the average catalyst bed inlet temperature for all three-hour periods is greater than or equal to the average catalyst bed inlet temperature established in accordance with § 63.827(d).

(ii) Use continuous emission monitors, conduct an initial performance test of capture efficiency, and continuously monitor a site specific operating parameter to assure capture efficiency in accordance with the requirements of paragraph (b)(1)(ii) of this section.

(3) To demonstrate compliance without the use of a control device, each owner or operator shall compare the mass of organic HAP used to the mass

of volatile matter used each month, as specified in paragraphs (b)(3)(i) through (b)(3)(iv) of this section:

(i) Measure the mass of each ink, coating, varnish, adhesive, primer, solvent, and other material used in the affected source during the month,

(ii) Determine the organic HAP content of each ink, coating, varnish, adhesive, primer, solvent, and other material used during the month following the procedure in § 63.827(b)(1), and

(iii) Determine the volatile matter content, including water, of each ink, coating, varnish, adhesive, primer, solvent, and other material used during the month following the procedure in § 63.827(c)(1).

(iv) The affected source is in compliance for the month if the mass of organic HAP used does not exceed eight percent of the mass of volatile matter used.

§ 63.825 Standards: Product and packaging rotogravure and wide-web flexographic printing.

(a) Each owner or operator of any product and packaging rotogravure or wide-web flexographic printing affected source that is subject to the requirements of this subpart shall comply with these requirements on and after the compliance dates as specified in § 63.826 of this subpart.

(b) Each product and packaging rotogravure or wide-web flexographic printing affected source shall limit emissions to no more than five percent of the organic HAP applied for the month; or to no more than four percent of the mass of inks, coatings, varnishes, adhesives, primers, solvents, reducers, thinners, and other materials applied for the month; or to no more than 20

percent of the mass of solids applied for the month; or to a calculated equivalent allowable mass based on the organic HAP and solids contents of the inks, coatings, varnishes, adhesives, primers, solvents, reducers, thinners, and other materials applied for the month. The owner or operator of each product and packaging rotogravure or wide-web flexographic printing affected source shall demonstrate compliance with this standard by following one of the procedures in paragraphs (b)(1) through (b)(10) of this section:

(1) Demonstrate that each ink, coating, varnish, adhesive, primer, solvent, diluent, reducer, thinner, and other material applied during the month contains no more than 0.04 weight-fraction organic HAP, on an as-purchased basis, as determined in accordance with § 63.827(b)(2).

(2) Demonstrate that each ink, coating, varnish, adhesive, primer, and other solids-containing material applied during the month contains no more than 0.04 weight-fraction organic HAP, on a monthly average as-applied basis as determined in accordance with paragraphs (b)(2)(i)–(ii) of this section. The owner or operator shall calculate the as-applied HAP content of materials which are reduced, thinned, or diluted prior to application, as follows:

(i) Determine the organic HAP content of each ink, coating, varnish, adhesive, primer, solvent, diluent, reducer, thinner, and other material applied on an as-purchased basis in accordance with § 63.827(b)(2).

(ii) Calculate the monthly average as-applied organic HAP content, C_{ahi} , of each ink, coating, varnish, adhesive, primer, and other solids-containing material using Equation 3.

$$C_{ahi} = \frac{C_{hi}M_i + \sum_{j=1}^q C_{hij}M_{ij}}{M_i + \sum_{j=1}^q M_{ij}} \quad \text{Eq 3}$$

(3)(i) Demonstrate that each ink, coating, varnish, adhesive, primer, and other solids-containing material applied, either

(A) Contains no more than 0.04 weight-fraction organic HAP on a monthly average as-applied basis, or

(B) Contains no more than 0.20 kg of organic HAP per kg of solids applied, on a monthly average as-applied basis.

(ii) The owner or operator may demonstrate compliance in accordance

with paragraphs (b)(3)(ii) (A)–(C) of this section.

(A) Use the procedures of paragraph (b)(2) of this section to determine which materials meet the requirements of paragraph (b)(3)(i)(A) of this section.

(B) Determine the as-applied solids content following the procedure in § 63.827(c)(2) of all materials which do not meet the requirements of paragraph (b)(3)(i)(A) of this section. The owner or operator may calculate the monthly

average as-applied solids content of materials which are reduced, thinned, or diluted prior to application, using Equation 4, and

$$C_{asi} = \frac{C_{si}M_i}{M_i + \sum_{j=1}^q M_{ij}} \quad \text{Eq 4}$$

(C) Calculate the as-applied organic HAP to solids ratio, H_{ai} , for all materials which do not meet the requirements of

paragraph (b)(3)(i)(A) of this section, using Equation 5.

$$H_{ai} = \frac{C_{ai}}{C_{ai}} \quad \text{Eq 5}$$

(4) Demonstrate that the monthly average as-applied organic HAP content, H_L , of all materials applied is less than 0.04 kg HAP per kg of material applied, as determined by Equation 6.

$$H_L = \frac{\sum_{i=1}^p M_i C_{hi} + \sum_{j=1}^q M_j C_{hj}}{\sum_{i=1}^p M_i + \sum_{j=1}^q M_j} \quad \text{Eq 6}$$

(5) Demonstrate that the monthly average as-applied organic HAP content on the basis of solids applied, H_s , is less than 0.20 kg HAP per kg solids applied as determined by Equation 7.

$$H_s = \frac{\sum_{i=1}^p M_i C_{hi} + \sum_{j=1}^q M_j C_{hj}}{\sum_{i=1}^p M_i C_{si}} \quad \text{Eq 7}$$

(6) Demonstrate that the total monthly organic HAP applied, H , as determined by Equation 8, is less than the calculated equivalent allowable organic HAP, H_a , as determined by paragraph (e) of this section.

$$H = \sum_{i=1}^p M_i C_{hi} + \sum_{j=1}^q M_j C_{hj} \quad \text{Eq 8}$$

(7) Operate a capture system and control device and demonstrate an overall organic HAP control efficiency of at least 95 percent for each month. If the affected source operates more than one capture system or more than one control device, and has only always-controlled work stations, then the owner or operator shall demonstrate compliance in accordance with the provisions of either paragraph (f) or (h) of this section. If the affected source operates one or more never-controlled work stations or one or more intermittently-controllable work stations, then the owner or operator shall demonstrate compliance in accordance with the provisions of paragraph (f) of this section. Otherwise, the owner or operator shall demonstrate compliance in accordance with the procedure in paragraph (c) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (d) of this section when emissions are controlled by an oxidizer.

(8) Operate a capture system and control device and limit the organic HAP emission rate to no more than 0.20 kg organic HAP emitted per kg solids applied as determined on a monthly average as-applied basis. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controllable work stations, then the owner or operator shall demonstrate compliance in accordance with the provisions of paragraph (f) of this section. Otherwise, the owner or operator shall demonstrate compliance following the procedure in paragraph (c) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (d) of this section when emissions are controlled by an oxidizer.

(9) Operate a capture system and control device and limit the organic HAP emission rate to no more than 0.04 kg organic HAP emitted per kg material applied as determined on a monthly average as-applied basis. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controllable work stations, then the owner or operator shall demonstrate compliance in accordance with the provisions of paragraph (f) of this section. Otherwise, the owner or operator shall demonstrate compliance following the procedure in paragraph (c) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (d) of this section when emissions are controlled by an oxidizer.

(10) Operate a capture system and control device and limit the monthly organic HAP emissions to less than the allowable emissions as calculated in accordance with paragraph (e) of this section. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controllable work stations, then the owner or operator shall demonstrate compliance in accordance with the provisions of paragraph (f) of this section. Otherwise, the owner or operator shall demonstrate compliance following the procedure in paragraph (c) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (d) of this section when emissions are controlled by an oxidizer.

(c) To demonstrate compliance with the overall organic HAP control efficiency requirement in § 63.825(b)(7) or the organic HAP emissions limitation requirements in § 63.825(b)(8)-(10), each owner or operator using a solvent recovery device to control emissions shall show compliance by following the procedures in either paragraph (c)(1) or (c)(2) of this section:

(1) Perform a liquid-liquid material balance for each and every month as follows:

(i) Measure the mass of each ink, coating, varnish, adhesive, primer, solvent and other material applied on the press or group of presses controlled by a common solvent recovery device during the month.

(ii) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on material applied or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in § 63.827(b)(2).

(iii) Determine the volatile matter content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in § 63.827(c)(2).

(iv) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied or emission of less than the calculated allowable organic HAP, determine the solids content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in § 63.827(c)(2).

(v) Install, calibrate, maintain, and operate according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile matter recovered by the solvent recovery device on a monthly basis. The device shall be initially certified by the manufacturer to be accurate to within ±2.0 percent.

(vi) Measure the amount of volatile matter recovered for the month.

(vii) Calculate the volatile matter collection and recovery efficiency, R_v , using Equation 9.

$$R_v = 100 \frac{M_{vr}}{\sum_{i=1}^p M_i C_{vi} + \sum_{j=1}^q M_j} \quad \text{Eq 9}$$

(viii) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP

emission rate based on material applied or emission of less than the calculated allowable organic HAP, calculate the

organic HAP emitted during the month, H, using Equation 10.

$$H = \left[1 - \frac{R_v}{100} \right] \left[\sum_{i=1}^p \left(C_{hi} M_i + \sum_{j=1}^q C_{hij} M_{ij} \right) \right] \quad \text{Eq 10}$$

(ix) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, calculate the organic HAP emission rate based on solids applied, L, using Equation 11.

$$L = \frac{H}{\sum_{i=1}^p C_{si} M_i} \quad \text{Eq 11}$$

(x) If demonstrating compliance on the basis of organic HAP emission rate based on materials applied, calculate the organic HAP emission rate based on material applied, S, using Equation 12.

$$S = \frac{H}{\sum_{i=1}^p \left[M_i + \sum_{j=1}^q M_{ij} \right]} \quad \text{Eq 12}$$

(xi) The affected source is in compliance if

(A) The organic volatile matter collection and recovery efficiency, R_v , is 95 percent or greater, or

(B) The organic HAP emission rate based on solids applied, L, is 0.20 kg organic HAP per kg solids applied or less, or

(C) the organic HAP emission rate based on material applied, S, is 0.04 kg organic HAP per kg material applied or less, or

(D) the organic HAP emitted during the month, H, is less than the calculated allowable organic HAP, H_a , as determined using paragraph (e) of this section.

(2) Use continuous emission monitors, conduct an initial performance test of capture efficiency, and continuously monitor a site specific operating parameter to assure capture efficiency following the procedures in paragraphs (c)(2)(i) through (c)(2)(xi) of this section:

(i) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on materials applied, or emission of less than the calculated allowable organic HAP, measure the mass of each ink, coating, varnish, adhesive, primer, solvent, and other material applied on the press or group of presses controlled by a common control device during the month.

(ii) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on material applied or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in § 63.827(b)(2).

(iii) Install continuous emission monitors to determine the total organic volatile matter mass flow rate (e.g., by determining the concentration of the vent gas in grams per cubic meter, and the volumetric flow rate in cubic meters per second, such that the total organic volatile matter mass flow rate in grams per second can be calculated and

summed) at both the inlet to and the outlet from the control device, such that the percent control efficiency (E) of the control device can be calculated for each month.

(iv) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied or emission of less than the calculated allowable organic HAP, determine the solids content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in § 63.827(c)(2).

(v) Install, calibrate, operate and maintain the instrumentation necessary to measure continuously the site specific operating parameter established in accordance with § 63.828(a), whenever a product and packaging rotogravure or wide-web flexographic printing press is operated.

(vi) Determine the capture efficiency (F) in accordance with § 63.827(f)-(f)

(vii) Calculate the overall organic HAP control efficiency, (R), achieved for each month using Equation 13.

$$R = \frac{EF}{100} \quad \text{Eq 13}$$

(viii) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on material applied or emission of less than the calculated allowable organic HAP, calculate the organic HAP emitted during the month, H, for each month using Equation 14

$$H = \left[1 - \left(\frac{E}{100} \frac{F}{100} \right) \right] \left[\sum_{i=1}^p \left(C_{hi} M_i + \sum_{j=1}^q C_{hij} M_{ij} \right) \right] \quad \text{Eq 14}$$

(ix) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, calculate the organic HAP emission rate based on solids applied, L, using Equation 15.

$$L = \frac{H}{\sum_{i=1}^p C_{si} M_i} \quad \text{Eq 15}$$

(x) If demonstrating compliance on the basis of organic HAP emission rate based on materials applied, calculate the organic HAP emission rate based on material applied, S, using Equation 16.

$$S = \frac{H}{\sum_{i=1}^p \left[M_i + \sum_{j=1}^q M_{ij} \right]} \quad \text{Eq 16}$$

(xi) The affected source is in compliance if the capture system operating parameter is operated at an average value greater than or less than (as appropriate) the operating parameter

value established in accordance with § 63.828(a)(5) for each three hour period, and

(A) The organic volatile matter collection and recovery efficiency, R_v , is 95 percent or greater, or

(B) The organic HAP emission rate based on solids applied, L , is 0.20 kg organic HAP per kg solids applied or less, or

(C) The organic HAP emission rate based on material applied, S , is 0.04 kg organic HAP per kg material applied or less, or

(D) The organic HAP emitted during the month, H , is less than the calculated allowable organic HAP, H_a , as determined using paragraph (e) of this section.

(d) To demonstrate compliance with the overall organic HAP control efficiency requirement in § 63.825(b)(7) or the overall organic HAP emission rate limitation requirements in § 63.825(b)(8)–(10), each owner or operator using an oxidizer to control emissions shall show compliance by following the procedures in either paragraph (d)(1) or (d)(2) of this section:

(1) demonstrate initial compliance through performance tests of capture efficiency and control device efficiency and continuing compliance through continuous monitoring of capture system and control device operating parameters following the procedures in paragraph (d)(1)(i) through (d)(1)(xi) of this section:

(i) Determine the oxidizer destruction efficiency (E) using the procedure in § 63.827(d).

(ii) Determine the capture system capture efficiency (F) in accordance with § 63.827(e)–(f).

(iii) Calculate the overall organic HAP control efficiency, (R), achieved using Equation 13.

(iv) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on materials applied or emission of less than the calculated allowable organic HAP, measure the mass of each ink, coating, varnish, adhesive, primer, solvent, and other material applied on the press or group of presses controlled by a common solvent recovery device during the month.

(v) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on material applied or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in § 63.827(b)(2).

(vi) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied or emission of less than the calculated allowable organic HAP, determine the solids content of each ink, coating, varnish, adhesive, primer, solvent, and other material applied during the month following the procedure in § 63.827(c)(2).

(vii) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, organic HAP emission rate based on material applied or emission of less than the calculated allowable organic HAP, calculate the organic HAP emitted during the month, H , for each month using Equation 14.

(viii) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied, calculate the organic HAP emission rate based on solids applied, L , for each month using Equation 15.

(ix) If demonstrating compliance on the basis of organic HAP emission rate based on materials applied, calculate the organic HAP emission rate based on material applied, S , using Equation 16.

(x) Install, calibrate, operate and maintain the instrumentation necessary to measure continuously the site-specific operating parameters established in accordance with § 63.828(a)(4)–(5) whenever a product and packaging rotogravure or wide-web flexographic press is operating.

(xi) The affected source is in compliance, if the oxidizer is operated such that the average operating parameter value is greater than the operating parameter value established in accordance with § 63.828(a)(4) for each three-hour period, and the capture system operating parameter is operated at an average value greater than or less than (as appropriate) the operating

parameter value established in accordance with § 63.828(a)(5) for each three hour period, and

(A) The overall organic HAP control efficiency, R , is 95 percent or greater, or

(B) The organic HAP emission rate based on solids applied, L , is 0.20 kg organic HAP per kg solids applied or less, or

(C) The organic HAP emission rate based on material applied, S , is 0.04 kg organic HAP per kg material applied or less, or

(D) The organic HAP emitted during the month, H , is less than the calculated allowable organic HAP, H_a , as determined using paragraph (e) of this section.

(2) Use continuous emission monitors, conduct an initial performance test of capture efficiency, and continuously monitor a site specific operating parameter to assure capture efficiency. Compliance shall be demonstrated in accordance with the requirements of paragraph (c)(2) of this section.

(e) Owners or operators may calculate the monthly allowable HAP emissions, H_a , for demonstrating compliance in accordance with paragraph (b)(6), (c)(1)(xi)(D), (c)(2)(xi)(D), or (d)(1)(xi)(D) of this section as follows:

(1) Determine the as-purchased mass of each ink, coating, varnish, adhesive, primer, and other solids-containing material applied each month, M_i .

(2) Determine the as-purchased solids content of each ink, coating, varnish, adhesive, primer, and other solids-containing material applied each month, in accordance with § 63.827(c)(2), C_{si} .

(3) Determine the as-purchased mass fraction of each ink, coating, varnish, adhesive, primer, and other solids-containing material which was applied at 20 weight-percent or greater solids content, on an as-applied basis, G_i .

(4) Determine the total mass of each solvent, diluent, thinner, or reducer added to materials which were applied at less than 20 weight-percent solids content, on an as-applied basis, each month, M_{Lj} .

(5) Calculate the monthly allowable HAP emissions, H_a , using Equation 17.

$$H_a = 0.20 \left[\sum_{i=1}^p M_i G_i C_{si} \right] + 0.04 \left[\sum_{i=1}^p M_i (1 - G_i) + \sum_{j=1}^q M_{Lj} \right] \quad \text{Eq 17}$$

(f) Owners or operators of product and packaging rotogravure or wide-web flexographic printing presses shall

demonstrate compliance according to the procedures in paragraphs (f)(1) through (f)(7) of this section if the

affected source operates more than one capture system, more than one control device, one or more never-controlled

work stations, or one or more intermittently-controllable work stations.

(1) The owner or operator of each solvent recovery system used to control one or more product and packaging rotogravure or wide-web flexographic presses for which the owner or operator chooses to comply by means of a liquid-liquid mass balance shall determine the organic HAP emissions for those presses controlled by that solvent recovery system either

(i) in accordance with paragraphs (c)(1)(i)-(iii) and (c)(1)(v)-(viii) of this section if the presses controlled by that solvent recovery system have only always-controlled work stations, or

(ii) in accordance with paragraphs (c)(1)(ii)-(iii), (c)(1)(v)-(vi), and (g) of this section if the presses controlled by that solvent recovery system have one or more never-controlled or intermittently-controllable work stations.

(2) The owner or operator of each solvent recovery system used to control one or more product and packaging rotogravure or wide-web flexographic presses, for which the owner or operator chooses to comply by means of an initial test of capture efficiency, continuous emission monitoring of the control device, and continuous monitoring of a capture system operating parameter, shall

(i) For each capture system delivering emissions to that solvent recovery system, monitor an operating parameter established in accordance with § 63.828(a)(5) to assure capture system efficiency, and

(ii) Determine the organic HAP emissions for those presses served by each capture system delivering emissions to that solvent recovery system either

(A) In accordance with paragraphs (c)(2)(i)-(iii) and (c)(2)(v)-(viii) of this section if the presses served by that capture system have only always-controlled work stations, or

(B) In accordance with paragraphs (c)(2)(ii)-(iii), (c)(2)(v)-(vii), and (g) of this section if the presses served by that capture system have one or more never-controlled or intermittently-controllable work stations.

(3) The owner or operator of each oxidizer used to control emissions from one or more product and packaging rotogravure or wide-web flexographic presses choosing to demonstrate compliance through performance tests of capture efficiency and control device efficiency and continuing compliance through continuous monitoring of capture system and control device operating parameters, shall

(i) Monitor an operating parameter established in accordance with § 63.828(a)(4) to assure control device efficiency, and

(ii) For each capture system delivering emissions to that oxidizer, monitor an operating parameter established in accordance with § 63.828(a)(5) to assure capture efficiency, and

(iii) Determine the organic HAP emissions for those presses served by each capture system delivering emissions to that oxidizer either

(A) In accordance with paragraphs (d)(1)(i)-(v) and (d)(1)(vii) of this section if the presses served by that capture system have only always-controlled work stations, or

(B) In accordance with paragraphs (d)(1)(i)-(iii), (d)(1)(v), and (g) of this section if the presses served by that capture system have one or more never-controlled or intermittently-controllable work stations.

(4) The owner or operator of each oxidizer used to control emissions from one or more product and packaging rotogravure or wide-web flexographic presses choosing to demonstrate compliance through an initial capture efficiency test, continuous emission monitoring of the control device and continuous monitoring of a capture system operating parameter, shall

(i) For each capture system delivering emissions to that oxidizer, monitor an operating parameter established in accordance with § 63.828(a)(5) to assure capture efficiency, and

(ii) Determine the organic HAP emissions for those presses served by each capture system delivering emissions to that oxidizer either

(A) In accordance with paragraphs (c)(2)(i)-(iii) and (c)(2)(v)-(viii) of this section if the presses served by that capture system have only always-controlled work stations, or

(B) In accordance with paragraphs (c)(2)(ii)-(iii), (c)(2)(v)-(vii), and (g) of this section if the presses served by that capture system have one or more never-controlled or intermittently-controllable work stations.

(5) The owner or operator of one or more uncontrolled product and packaging rotogravure or wide-web flexographic printing presses shall determine the organic HAP applied on those presses using Equation 8. The organic HAP emitted from an uncontrolled press is equal to the organic HAP applied on that press.

(6) If demonstrating compliance on the basis of organic HAP emission rate based on solids applied or emission of less than the calculated allowable organic HAP, the owner or operator shall determine the solids content of

each ink, coating, varnish, adhesive, primer, solvent and other material applied during the month following the procedure in § 63.827(c)(2).

(7) The owner or operator shall determine the organic HAP emissions for the affected source for the month by summing all organic HAP emissions calculated according to paragraphs (f)(1), (f)(2)(ii), (f)(3)(iii), (f)(4)(ii), and (f)(5) of this section. The affected source is in compliance for the month, if all operating parameters required to be monitored under paragraphs (f)(2)-(4) of this section were maintained at the appropriate values, and

(i) The total mass of organic HAP emitted by the affected source was not more than four percent of the total mass of inks, coatings, varnishes, adhesives, primers, solvents, diluents, reducers, thinners and other materials applied by the affected source, or

(ii) The total mass of organic HAP emitted by the affected source was not more than 20 percent of the total mass of solids applied by the affected source, or

(iii) The total mass of organic HAP emitted by the affected source was not more than the equivalent allowable organic HAP emissions for the affected source, H_a , calculated in accordance with paragraph (e) of this section, or

(iv) The total mass of organic HAP emitted by the affected source was not more than five percent of the total mass of organic HAP applied by the affected source. The total mass of organic HAP applied by the affected source in the month shall be determined by the owner or operator using Equation 8.

(g) Owners or operators determining organic HAP emissions from a press or group of presses having one or more never-controlled or intermittently-controllable work stations and using the procedures specified in paragraphs (f)(1)(ii), (f)(2)(ii)(B), (f)(3)(iii)(B), or (f)(4)(ii)(B) of this section shall for that press or group of presses:

(1) Determine the sum of the mass of all inks, coatings, varnishes, adhesives, primers, and other solids-containing materials which are applied on intermittently-controllable work stations in bypass mode and the mass of all inks, coatings, varnishes, adhesives, primers, and other solids-containing materials which are applied on never-controlled work stations during the month, M_{HAP} .

(2) Determine the sum of the mass of all solvents, reducers, thinners, and other diluents which are applied on intermittently-controllable work stations in bypass mode and the mass of all solvents, reducers, thinners, and other diluents which are applied on never-

controlled work stations during the month, M_{Bj} .

(3) Determine the sum of the mass of all inks, coatings, varnishes, adhesives, primers, and other solids-containing materials which are applied on intermittently-controllable work stations in controlled mode and the mass of all inks, coatings, varnishes, adhesives, primers, and other solids-containing

materials which are applied on always-controlled work stations during the month, M_{Bj} .

(4) Determine the sum of the mass of all solvents, reducers, thinners, and other diluents which are applied on intermittently-controllable work stations in controlled mode and the mass of all solvents, reducers, thinners, and other diluents which are applied on always-

controlled work stations during the month, M_{Cj} .

(5) For each press or group of presses for which the owner or operator uses the provisions of paragraph (f)(1)(ii) of this section, the owner or operator shall calculate the organic HAP emitted during the month using Equation 18.

$$H = \left[\sum_{i=1}^p M_{Ci} C_{hi} + \sum_{j=1}^q M_{Cj} C_{hj} \right] \left[1 - \frac{M_{vt}}{\sum_{i=1}^p M_{Ci} C_{vi} + \sum_{j=1}^q M_{Cj}} \right] + \left[\sum_{i=1}^p M_{Bi} C_{hi} + \sum_{j=1}^q M_{Bj} C_{hj} \right] \quad \text{Eq 18}$$

(6) For each press or group of presses for which the owner or operator uses the provisions of paragraphs (f)(2)(ii)(B),

(f)(3)(iii)(B), or (f)(4)(ii)(B) of this section, the owner or operator shall

calculate the organic HAP emitted during the month using Equation (19).

$$H = \left[\sum_{i=1}^p M_{Ci} C_{hi} + \sum_{j=1}^q M_{Cj} C_{hj} \right] \left[1 - \left(\frac{E}{100} \frac{F}{100} \right) \right] + \left[\sum_{i=1}^p M_{Bi} C_{hi} + \sum_{j=1}^q M_{Bj} C_{hj} \right] \quad \text{Eq 19}$$

(h) If the affected source operates more than one capture system or more than one control device, and has no never-controlled work stations and no intermittently-controllable work stations, then the affected source is in compliance with the 95 percent overall organic HAP control efficiency requirement for the month if for each press or group of presses controlled by a common control device:

(1) The volatile matter collection and recovery efficiency, R_v , as determined by paragraphs (c)(1)(i), (c)(1)(iii), and (c)(1)(v)-(vii) of this section is equal to or greater than 95 percent, or

(2) The overall organic HAP control efficiency as determined by paragraphs (c)(2)(iii) and (c)(2)(v)-(vii) of this section for each press or group of presses served by that control device and a common capture system is equal to or greater than 95 percent and the average capture system operating parameter value for each capture system serving that control device is greater than or less than (as appropriate) the operating parameter value established for that capture system in accordance with § 63.828(a)(5) for each three hour period, or

(3) The overall organic HAP control efficiency as determined by paragraphs (d)(1)(i)-(iii) and (d)(1)(x) of this section for each press or group of presses served by that control device and a common capture system is equal to or greater than 95 percent, the oxidizer is operated

such that the average operating parameter value is greater than the operating parameter value established in accordance with § 63.828(a)(4) for each three hour period, and the average capture system operating parameter value for each capture system serving that control device is greater than or less than (as appropriate) the operating parameter value established for that capture system in accordance with § 63.828(a)(5) for each three hour period.

§ 63.826 Compliance dates.

(a) The compliance date for an owner or operator of an existing affected source subject to the provisions of this subpart is May 30, 1999.

(b) The compliance date for an owner or operator of a new affected source subject to the provisions of this subpart is immediately upon start-up of the affected source, or May 30, 1996, whichever is later.

(c) Affected sources which have undergone reconstruction are subject to the requirements for new affected sources. The costs associated with the purchase and installation of air pollution control equipment are not considered in determining whether the affected source has been reconstructed. Additionally, the costs of retrofitting and replacement of equipment that is installed specifically to comply with this subpart are not considered reconstruction costs.

§ 63.827 Performance test methods.

(a) An owner or operator using a control device to comply with the requirements of §§ 63.824–63.825 is not required to conduct an initial performance test to demonstrate compliance if one or more of the criteria in paragraphs (a)(1) through (a)(3) of this section are met:

(1) A control device that is in operation prior to May 30, 1996, does not need to be tested if

(i) It is equipped with continuous emission monitors for determining inlet and outlet total organic volatile matter concentration, and capture efficiency has been determined in accordance with the requirements of this subpart, such that an overall HAP control efficiency can be calculated, and

(ii) The continuous emission monitors are used to demonstrate continuous compliance in accordance with § 63.828, or

(2) The owner or operator has met the requirements of either § 63.7(e)(2)(iv) or § 63.7(h), or

(3) The control device is a solvent recovery system and the owner or operator chooses to comply by means of a monthly liquid-liquid material balance.

(b) Determination of the organic HAP content of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, diluents, and other materials for the purpose of meeting the requirements of § 63.824 shall be

conducted according to paragraph (b)(1) of this section. Determination of the organic HAP content of inks, coatings, varnishes, adhesives, primers, solvents, thinners, reducers, diluents, and other materials for the purpose of meeting the requirements of § 63.825 shall be conducted according to paragraph (b)(2) of this section.

(1) Each owner or operator of a publication rotogravure facility shall determine the organic HAP weight-fraction of each ink, coating, varnish, adhesive, primer, solvent, and other material used in a publication rotogravure affected source by following one of the procedures in paragraphs (b)(1)(i) through (b)(1)(iii) of this section:

(i) The owner or operator may test the material in accordance with Method 311 of appendix A of this Part 63. The Method 311 determination may be performed by the manufacturer of the material and the results provided to the owner or operator. If these values cannot be determined using Method 311, the owner or operator shall submit an alternative technique for determining their values for approval by the Administrator. The recovery efficiency of the technique must be determined for all of the target organic HAP and a correction factor, if necessary, must be determined and applied.

(ii) The owner or operator may determine the volatile matter content of the material in accordance with § 63.827(c)(1) and use this value for the organic HAP content for all compliance purposes.

(iii) The owner or operator may, except as noted in paragraph (b)(1)(iv) of this section, rely on formulation data provided by the manufacturer of the material on a CPDS if

(A) The manufacturer has included in the organic HAP content determination all HAP present at a level greater than 0.1 percent in any raw material used, weighted by the mass fraction of each raw material used in the material, and

(B) The manufacturer has determined the HAP content of each raw material present in the formulation by Method 311 of appendix A of this part 63, or by an alternate method approved by the Administrator, or by reliance on a CPDS from a raw material supplier prepared in accordance with § 63.827(b)(1)(iii)(A).

(iv) In the event of any inconsistency between the Method 311 of appendix A of this part 63 test data and formulation data, that is, if the Method 311 test value is higher, the Method 311 test data shall govern, unless after consultation, an owner or operator demonstrates to the satisfaction of the enforcement

authority that the formulation data are correct.

(2) Each owner or operator of a product and packaging rotogravure or wide-web flexographic printing facility shall determine the organic HAP weight fraction of each ink, coating, varnish, adhesive, primer, solvent, thinner, reducer, diluent, and other material applied by following one of the procedures in paragraphs (b)(2)(i) through (b)(2)(iii) of this section:

(i) The owner or operator may test the material in accordance with Method 311 of appendix A of this part 63. The Method 311 determination may be performed by the manufacturer of the material and the results provided to the owner or operator. If these values cannot be determined using Method 311, the owner or operator shall submit an alternative technique for determining their values for approval by the Administrator. The recovery efficiency of the technique must be determined for all of the target organic HAP and a correction factor, if necessary, must be determined and applied.

(ii) The owner or operator may determine the volatile matter content of the material in accordance with § 63.827(c)(2) and use this value for the organic HAP content for all compliance purposes.

(iii) The owner or operator may, except as noted in paragraph (b)(2)(iv) of this section, rely on formulation data provided by the manufacturer of the material on a CPDS if

(A) The manufacturer has included in the organic HAP content determination, all organic HAP present at a level greater than 0.1 percent in any raw material used, weighted by the mass fraction of each raw material used in the material, and

(B) The manufacturer has determined the organic HAP content of each raw material present in the formulation by Method 311 of appendix A of this part 63, or by an alternate method approved by the Administrator, or by reliance on a CPDS from a raw material supplier prepared in accordance with § 63.827(b)(2)(iii)(A).

(iv) In the event of any inconsistency between the Method 311 of appendix A of this part 63 test data and a facility's formulation data, that is, if the Method 311 test value is higher, the Method 311 test data shall govern, unless after consultation, an owner or operator demonstrates to the satisfaction of the enforcement authority that the formulation data are correct.

(c) Determination by the owner or operator of the volatile matter content of inks, coatings, varnishes, adhesives, primers, solvents, reducers, thinners,

diluents, and other materials used for the purpose of meeting the requirements of § 63.824 shall be conducted according to paragraph (c)(1) of this section.

Determination by the owner or operator of the volatile matter and solids content of inks, coatings, varnishes, adhesives, primers, solvents, reducers, thinners, diluents, and other materials applied for the purpose of meeting the requirements of § 63.825 shall be conducted according to paragraph (c)(2) of this section.

(1) Each owner or operator of a publication rotogravure facility shall determine the volatile matter weight-fraction of each ink, coating, varnish, adhesive, primer, solvent, reducer, thinner, diluent, and other material used using Method 24A of 40 CFR part 60, appendix A. The Method 24A determination may be performed by the manufacturer of the material and the results provided to the owner or operator. If these values cannot be determined using Method 24A, the owner or operator shall submit an alternative technique for determining their values for approval by the Administrator. The owner or operator may rely on formulation data, subject to the provisions of paragraph (c)(3) of this section.

(2) Each owner or operator of a product and packaging rotogravure or wide-web flexographic printing facility shall determine the volatile matter and solids weight-fraction of each ink, coating, varnish, adhesive, primer, solvent, reducer, thinner, diluent, and other material applied using Method 24 of 40 CFR part 60, appendix A. The Method 24 determination may be performed by the manufacturer of the material and the results provided to the owner or operator. If these values cannot be determined using Method 24, the owner or operator shall submit an alternative technique for determining their values for approval by the Administrator. The owner or operator may rely on formulation data, subject to the provisions of paragraph (c)(3) of this section.

(3) Owners or operators may determine the volatile matter content of materials based on formulation data, and may rely on volatile matter content data provided by material suppliers. In the event of any inconsistency between the formulation data and the results of Test Methods 24 or 24A of 40 CFR part 60, appendix A, the applicable test method shall govern, unless after consultation, the owner or operator can demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(d) A performance test of a control device to determine destruction

efficiency for the purpose of meeting the requirements of §§ 63.824–63.825 shall be conducted by the owner or operator in accordance with the following:

(1) An initial performance test to establish the destruction efficiency of an oxidizer and the associated combustion zone temperature for a thermal oxidizer and the associated catalyst bed inlet temperature for a catalytic oxidizer shall be conducted and the data reduced in accordance with the following reference methods and procedures:

(i) Method 1 or 1A of 40 CFR part 60, appendix A is used for sample and velocity traverses to determine sampling locations.

(ii) Method 2, 2A, 2C, or 2D of 40 CFR part 60, appendix A is used to determine gas volumetric flow rate.

(iii) Method 3 of 40 CFR part 60, appendix A is used for gas analysis to determine dry molecular weight.

(iv) Method 4 of 40 CFR part 60, appendix A is used to determine stack gas moisture.

(v) Methods 2, 2A, 3, and 4 of 40 CFR part 60, appendix A shall be performed, as applicable, at least twice during each test period.

(vi) Method 25 of 40 CFR part 60, Appendix A, shall be used to determine organic volatile matter concentration, except as provided in paragraphs (d)(1)(vi)(A)–(C) of this section. The owner or operator shall submit notice of the intended test method to the Administrator for approval along with notice of the performance test required under § 63.7(c). The owner or operator may use Method 25A of 40 CFR part 60, appendix A, if

(A) An exhaust gas organic volatile matter concentration of 50 parts per million by volume (ppmv) or less is required to comply with the standards of §§ 63.824–63.825, or

(B) The organic volatile matter concentration at the inlet to the control system and the required level of control are such to result in exhaust gas organic volatile matter concentrations of 50 ppmv or less, or

(C) Because of the high efficiency of the control device, the anticipated organic volatile matter concentration at the control device exhaust is 50 ppmv or less, regardless of inlet concentration.

(vii) Each performance test shall consist of three separate runs; each run conducted for at least one hour under the conditions that exist when the affected source is operating under normal operating conditions. For the purpose of determining organic volatile matter concentrations and mass flow rates, the average of results of all runs shall apply.

(viii) Organic volatile matter mass flow rates shall be determined using Equation 20:

$$M_f = Q_{sd} \left[\sum_{i=1}^n C_i MW_i \right] [0.0416] [10^{-6}] \quad \text{Eq 20}$$

(ix) Emission control device efficiency shall be determined using Equation 21:

$$E = \frac{M_{fi} - M_{fo}}{M_{fi}} \quad \text{Eq 21}$$

(2) The owner or operator shall record such process information as may be necessary to determine the conditions of the performance test. Operations during periods of start-up, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.

(3) For the purpose of determining the value of the oxidizer operating parameter that will demonstrate continuing compliance, the time-weighted average of the values recorded during the performance test shall be computed. For an oxidizer other than catalytic oxidizer, the owner or operator shall establish as the operating parameter the minimum combustion temperature. For a catalytic oxidizer, the owner or operator shall establish as the operating parameter the minimum gas temperature upstream of the catalyst bed. These minimum temperatures are the operating parameter values that demonstrate continuing compliance with the requirements of §§ 63.824–63.825.

(e) A performance test to determine the capture efficiency of each capture system venting organic emissions to a control device for the purpose of

meeting the requirements of §§ 63.824(b)(1)(ii), 63.824(b)(2), 63.825(c)(2), 63.825(d)(1)–(2), 63.825(f)(2)–(4), or 63.825(h)(2)–(3) shall be conducted by the owner or operator in accordance with the following:

(1) For permanent total enclosures, capture efficiency shall be assumed as 100 percent. Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure as found in appendix B to § 52.741 of part 52 of this chapter shall be used to confirm that an enclosure meets the requirements for permanent total enclosure.

(2) For temporary total enclosures, the capture efficiency shall be determined according to the protocol specified in § 52.741(a)(4)(iii)(B) of part 52 of this chapter. The owner or operator may exclude never-controlled work stations from such capture efficiency determinations.

(f) As an alternative to the procedures specified in § 63.827(e) an owner or operator required to conduct a capture efficiency test may use any capture efficiency protocol and test methods that satisfy the criteria of either the Data Quality Objective (DQO) or the Lower Confidence Limit (LCL) approach as described in Appendix A of this subpart. The owner or operator may exclude never-controlled work stations from such capture efficiency determinations.

§ 63.828 Monitoring requirements.

(a) Following the date on which the initial performance test of a control device is completed, to demonstrate continuing compliance with the standard, the owner or operator shall monitor and inspect each control device required to comply with §§ 63.824–63.825 to ensure proper operation and maintenance by implementing the applicable requirements in paragraph (a)(1) through (a)(5) of this section.

(1) Owners or operators of product and packaging rotogravure or wide-web flexographic presses with intermittently-controllable work stations shall follow one of the procedures in paragraphs (a)(1)(i) through (a)(1)(iv) of this section for each dryer associated with such a work station:

(i) Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that provides a record indicating whether the exhaust stream from the dryer was directed to the control device or was diverted from the control device. The time and flow control position must be recorded at least once per hour, as well as every time the flow direction is changed. The flow control position indicator shall be installed at the entrance to any bypass line that could divert the exhaust stream away from the control device to the atmosphere.

(ii) Secure any bypass line valve in the closed 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 that the valve or damper is maintained in the closed position and the exhaust stream is not diverted through the bypass line.

(iii) Ensure that any bypass line valve or damper is in the closed position through continuous monitoring of valve position. The monitoring system shall be inspected at least once every month to ensure that it is functioning properly.

(iv) Use an automatic shutdown system in which the press is stopped when flow is diverted away from the control device to any bypass line. The automatic system shall be inspected at least once every month to ensure that it is functioning properly.

(2) Compliance monitoring shall be subject to the provisions of paragraphs (a)(2)(i) and (a)(2)(ii) of this section, as applicable.

(i) All continuous emission monitors shall comply with performance specifications (PS) 8 or 9 of 40 CFR part 60, appendix B, as appropriate. The requirements of Appendix F of 40 CFR part 60 shall also be followed. In conducting the quarterly audits required by appendix F, owners or operators must challenge the monitors with compounds representative of the gaseous emission stream being controlled.

(ii) All temperature monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturers specifications. The calibration of the chart recorder, data logger, or temperature indicator shall be verified every three months; or the chart recorder, data logger, or temperature indicator shall be replaced. The replacement shall be done either if the owner or operator chooses not to perform the calibration, or if the equipment cannot be calibrated properly.

(3) An owner or operator complying with §§ 63.824–63.825 through continuous emission monitoring of a control device shall install, calibrate, operate, and maintain continuous emission monitors to measure the total organic volatile matter concentration at both the control device inlet and the outlet.

(4) An owner or operator complying with the requirements of §§ 63.824–63.825 through the use of an oxidizer and demonstrating continuous compliance through monitoring of an oxidizer operating parameter shall:

(i) For an oxidizer other than a catalytic oxidizer, install, calibrate,

operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ± 1 percent of the temperature being monitored in $^{\circ}\text{C}$ or $\pm 1^{\circ}\text{C}$, whichever is greater. The thermocouple or temperature sensor shall be installed in the combustion chamber at a location in the combustion zone.

(ii) For a catalytic oxidizer, install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of ± 1 percent of the temperature being monitored in $^{\circ}\text{C}$ or $\pm 1^{\circ}\text{C}$, whichever is greater. The thermocouple or temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet.

(5) An owner or operator complying with the requirements of §§ 63.824–63.825 through the use of a control device and demonstrating continuous compliance by monitoring an operating parameter to ensure that the capture efficiency measured during the initial compliance test is maintained, shall:

(i) Submit to the Administrator with the compliance status report required by § 63.9(h) of the General Provisions, a plan that

(A) Identifies the operating parameter to be monitored to ensure that the capture efficiency measured during the initial compliance test is maintained,

(B) Discusses why this parameter is appropriate for demonstrating ongoing compliance, and

(C) Identifies the specific monitoring procedures;

(ii) Set the operating parameter value, or range of values, that demonstrate compliance with §§ 63.824–63.825, and

(iii) Conduct monitoring in accordance with the plan submitted to the Administrator unless comments received from the Administrator require an alternate monitoring scheme.

(b) Any excursion from the required operating parameters which are monitored in accordance with paragraphs (a)(4) and (a)(5) of this section, unless otherwise excused, shall be considered a violation of the emission standard.

§ 63.829 Recordkeeping requirements.

(a) The recordkeeping provisions of 40 CFR part 63 subpart A of this part that apply and those that do not apply to owners and operators of affected sources subject to this subpart are listed in Table 1 of this subpart.

(b) Each owner or operator of an affected source subject to this subpart

shall maintain the records specified in paragraphs (b)(1) through (b)(3) of this section on a monthly basis in accordance with the requirements of § 63.10(b)(1) of this part:

(1) Records specified in § 63.10(b)(2) of this part, of all measurements needed to demonstrate compliance with this standard, such as continuous emission monitor data, control device and capture system operating parameter data, material usage, HAP usage, volatile matter usage, and solids usage that support data that the source is required to report.

(2) Records specified in § 63.10(b)(3) of this part for each applicability determination performed by the owner or operator in accordance with the requirements of § 63.820(a) of this subpart, and

(3) Records specified in § 63.10(c) of this part for each continuous monitoring system operated by the owner or operator in accordance with the requirements of § 63.828(a) of this subpart.

(c) Each owner or operator of an affected source subject to this subpart shall maintain records of all liquid-liquid material balances performed in accordance with the requirements of §§ 63.824–63.825 of this subpart. The records shall be maintained in accordance with the requirements of § 63.10(b) of this part.

(d) The owner or operator of each facility which commits to the criteria of § 63.820(a)(2) shall maintain records of all required measurements and calculations needed to demonstrate compliance with these criteria, including the mass of all HAP containing materials used and the mass fraction of HAP present in each HAP containing material used, on a monthly basis.

(e) The owner or operator of each facility which meets the limits and criteria of § 63.821(b)(1) shall maintain records as required in paragraph (e)(1) of this section. The owner or operator of each facility which meets the limits and criteria of § 63.821(b)(2) shall maintain records as required in paragraph (e)(2) of this section. Owners or operators shall maintain these records for five years, and upon request, submit them to the Administrator.

(1) For each facility which meets the criteria of § 63.821(b)(1), the owner or operator shall maintain records of the total volume of each material applied on product and packaging rotogravure or wide-web flexographic printing presses during each month.

(2) For each facility which meets the criteria of § 63.821(b)(2), the owner or operator shall maintain records of the

total volume and organic HAP content of each material applied on product and packaging rotogravure or wide-web flexographic printing presses during each month.

(f) The owner or operator choosing to exclude from an affected source, a product and packaging rotogravure or wide-web flexographic press which meets the limits and criteria of § 63.821(a)(2)(ii)(A) shall maintain the records specified in paragraphs (f)(1) and (f)(2) of this section for five years and submit them to the Administrator upon request:

(1) The total mass of each material applied each month on the press, including all inboard and outboard stations, and

(2) The total mass of each material applied each month on the press by product and packaging rotogravure or wide-web flexographic printing operations.

§ 63.830 Reporting requirements.

(a) The reporting provisions of 40 CFR part 63 subpart A of this part that apply and those that do not apply to owners and operators of affected sources subject to this subpart are listed in Table 1 of this subpart.

(b) Each owner or operator of an affected source subject to this subpart shall submit the reports specified in paragraphs (b)(1) through (b)(6) of this section to the Administrator:

(1) An initial notification required in § 63.9(b).

(i) Initial notifications for existing sources shall be submitted no later than one year before the compliance date specified in § 63.826(a).

(ii) Initial notifications for new and reconstructed sources shall be submitted as required by § 63.9(b).

(iii) For the purpose of this subpart, a Title V or part 70 permit application

may be used in lieu of the initial notification required under § 63.9(b), provided the same information is contained in the permit application as required by § 63.9(b), and the State to which the permit application has been submitted has an approved operating permit program under part 70 of this chapter and has received delegation of authority from the EPA.

(iv) Permit applications shall be submitted by the same due dates as those specified for the initial notifications.

(2) A Notification of Performance Tests specified in § 63.7 and § 63.9(e) of this part. This notification, and the site-specific test plan required under § 63.7(c)(2) shall identify the operating parameter to be monitored to ensure that the capture efficiency measured during the performance test is maintained. The operating parameter identified in the site-specific test plan shall be considered to be approved unless explicitly disapproved, or unless comments received from the Administrator require monitoring of an alternate parameter.

(3) A Notification of Compliance Status specified in § 63.9(h) of this part.

(4) Performance test reports specified in § 63.10(d)(2) of this part.

(5) Start-up, shutdown, and malfunction reports specified in § 63.10(d)(5) of this part, except that the provisions in subpart A pertaining to start-ups, shutdowns, and malfunctions do not apply unless a control device is used to comply with this subpart.

(i) If actions taken by an owner or operator during a start-up, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are not completely consistent with the procedures specified in the source's start-up, shutdown, and malfunction plan specified in

§ 63.6(e)(3) of this part, the owner or operator shall state such information in the report. The start-up, shutdown, or malfunction report shall consist of a letter containing the name, title, and signature of the responsible official who is certifying its accuracy, that shall be submitted to the Administrator.

(ii) Separate start-up, shutdown, or malfunction reports are not required if the information is included in the report specified in paragraph (b)(6) of this section.

(6) A summary report specified in § 63.10(e)(3) of this part shall be submitted on a semi-annual basis (i.e., once every six-month period). In addition to a report of operating parameter exceedances as required by § 63.10(e)(3)(i), the summary report shall include, as applicable:

(i) Exceedances of the standards in §§ 63.824–63.825.

(ii) Exceedances of either of the criteria of § 63.820(a)(2).

(iii) Exceedances of the criterion of § 63.821(b)(1) and the criterion of § 63.821(b)(2) in the same month.

(iv) Exceedances of the criterion of § 63.821(a)(2)(ii)(A).

§ 63.831 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under 40 CFR part 63 subpart E of this part, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authority which will not be delegated to States: § 63.827(b), approval of alternate test method for organic HAP content determination; § 63.827(c), approval of alternate test method for volatile matter determination.

TABLE 1 TO SUBPART KK.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART KK

General provisions reference	Applicable to subpart KK	Comment
§ 63.1(a)(1)–(a)(4)	Yes.	
§ 63.1(a)(5)	No	Section reserved.
§ 63.1(a)(6)–(a)(8)	No.	
§ 63.1(a)(9)	No	Section reserved.
§ 63.1(a)(10)–(a)(14)	Yes.	
§ 63.1(b)(1)	No	Subpart KK specifies applicability.
§ 63.1(b)(2)–(b)(3)	Yes.	
§ 63.1(c)(1)	Yes.	
§ 63.1(c)(2)	No	Area sources are not subject to subpart KK.
§ 63.1(c)(3)	No	Section reserved.
§ 63.1(c)(4)	Yes.	
§ 63.1(c)(5)	No.	
§ 63.1(d)	No	Section reserved.
§ 63.1(e)	Yes.	
§ 63.2	Yes	Additional definitions in subpart KK.
§ 63.3(a)–(c)	Yes.	
§ 63.4(a)(1)–(a)(3)	Yes.	
§ 63.4(a)(4)	No	Section reserved.

TABLE 1 TO SUBPART KK.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART KK—Continued

General provisions reference	Applicable to subpart KK	Comment
§ 63.4(a)(5)	Yes.	
§ 63.4(b-c)	Yes.	
§ 63.5(a)(1)-(a)(2)	Yes.	
§ 63.5(b)(1)	Yes.	
§ 63.5(b)(2)	No	Section reserved.
§ 63.5(b)(3)-(b)(6)	Yes.	
§ 63.5(c)	No	Section reserved.
§ 63.5(d)	Yes.	
§ 63.5(e)	Yes.	
§ 63.5(f)	Yes.	
§ 63.6(a)	Yes.	
§ 63.6(b)(1)-(b)(5)	Yes.	
§ 63.6(b)(6)	No	Section reserved.
§ 63.6(b)(7)	Yes.	
§ 63.6(c)(1)-(c)(2)	Yes.	
§ 63.6(c)(3)-(c)(4)	No	Sections reserved.
§ 63.6(c)(5)	Yes.	
§ 63.6(d)	No	Section reserved.
§ 63.6(e)	Yes	Provisions pertaining to start-ups, shutdowns, malfunctions, and CMS do not apply unless an add-on control system is used.
§ 63.6(f)	Yes.	
§ 63.6(g)	Yes.	
§ 63.6(h)	No	Subpart KK does not require COMS.
§ 63.6(i)(1)-(i)(14)	Yes.	
§ 63.6(i)(15)	No	Section reserved.
§ 63.6(i)(16)	Yes.	
§ 63.6(j)	Yes.	
§ 63.7	Yes.	
§ 63.8(a)(1)-(a)(2)	Yes.	
§ 63.8(a)(3)	No	Section reserved.
§ 63.8(a)(4)	No	Subpart KK specifies the use of solvent recovery devices or oxidizers.
§ 63.8(b)	Yes.	
§ 63.8(c)(1)-(3)	Yes.	
§ 63.8(c)(4)	No	Subpart KK specifies CMS sampling requirements.
§ 63.8(c)(5)	No	Subpart KK does not require COMS.
§ 63.8(c)(6)-(c)(8)	Yes	Provisions for COMS are not applicable.
§ 63.8(d)-(f)	Yes.	
§ 63.8(g)	No	Subpart KK specifies CMS data reduction requirements.
§ 63.9(a)	Yes.	
§ 63.9(b)(1)	Yes.	
§ 63.9(b)(2)	Yes	Initial notification submission date extended.
§ 63.9(b)(3)-(b)(5)	Yes.	
§ 63.9(c)-(e)	Yes.	
§ 63.9(f)	No	Subpart KK does not require opacity and visible emissions observations.
§ 63.9(g)	Yes	Provisions for COMS are not applicable.
§ 63.9(h)(1)-(h)(3)	Yes.	
§ 63.9(h)(4)	No	Section reserved.
§ 63.9(h)(5)-(h)(6)	Yes.	
§ 63.9(i)	Yes.	
§ 63.9(j)	Yes.	
§ 63.10(a)	Yes.	
§ 63.10(b)(1)-(b)(3)	Yes.	
§ 63.10(c)(1)	Yes.	
§ 63.10(c)(2)-(c)(4)	No	Sections reserved.
§ 63.10(c)(5)-(c)(8)	Yes.	
§ 63.10(c)(9)	No	Section reserved.
§ 63.10(c)(10)-(c)(15)	Yes.	
§ 63.10(d)(1)-(d)(2)	Yes.	
§ 63.10(d)(3)	No	Subpart KK does not require opacity and visible emissions observations.
§ 63.10(d)(4)-(d)(5)	Yes.	
§ 63.10(e)	Yes	Provisions for COMS are not applicable.
§ 63.10(f)	Yes.	
§ 63.11	No	Subpart KK specifies the use of solvent recovery devices or oxidizers.
§ 63.12	Yes.	
§ 63.13	Yes.	
§ 63.14	Yes.	
§ 63.15	Yes.	

Appendix A to Subpart KK—Data Quality Objective and Lower Confidence Limit Approaches for Alternative Capture Efficiency Protocols and Test Methods

1. Introduction

1.1 Alternative capture efficiency (CE) protocols and test methods that satisfy the criteria of either the data quality objective (DQO) approach or the lower confidence limit (LCL) approach are acceptable under § 63.827(f). The general criteria for alternative CE protocols and test methods to qualify under either the DQO or LCL approach are described in section 2. The DQO approach and criteria specific to the DQO approach are described in section 3. The LCL approach and criteria specific to the LCL approach are described in section 4. The recommended reporting for alternative CE protocols and test methods are presented in section 5. The recommended recordkeeping for alternative CE protocols and test methods are presented in section 6.

1.2 Although the Procedures L, G.1, G.2, F.1, and F.2 in § 52.741 of part 52 were developed for TTE and BE testing, the same procedures can also be used in an alternative CE protocol. For example, a traditional liquid/gas mass balance CE protocol could employ Procedure L to measure liquid VOC input and Procedure G.1 to measure captured VOC.

2. General Criteria for DQO and LCL Approaches

2.1 The following general criteria must be met for an alternative capture efficiency

protocol and test methods to qualify under the DQO or LCL approach.

2.2 An alternative CE protocol must consist of at least three valid test runs. Each test run must be at least 20 minutes long. No test run can be longer than 24 hours.

2.3 All test runs must be separate and independent. For example, liquid VOC input and output must be determined independently for each run. The final liquid VOC sample from one run cannot be the initial sample for another run. In addition, liquid input for an entire day cannot be apportioned among test runs based on production.

2.4 Composite liquid samples cannot be used to obtain an "average composition" for a test run. For example, separate initial and final coating samples must be taken and analyzed for each run; initial and final samples cannot be combined prior to analysis to derive an "average composition" for the test run.

2.5 All individual test runs that result in a CE of greater than 105 percent are invalid and must be discarded.

2.6 If the source can demonstrate to the regulatory agency that a test run should not be considered due to an identified testing or analysis error such as spillage of part of the sample during shipping or an upset or improper operating conditions that is not considered part of normal operation then the test result for that individual test run may be discarded. This limited exception allows sources to discard as "outliers" certain individual test runs without replacing them with a valid test run as long as the facility

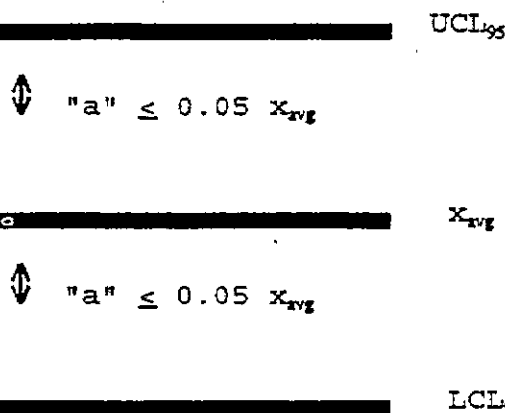
has at least three valid test runs to use when calculating its DQO or LCL. This exception is limited solely to test runs involving the types of errors identified above.

2.7 All valid test runs that are conducted must be included in the average CE determination. The individual test run CE results and average CE results cannot be truncated (i.e., 105 percent cannot be reported as 100+ percent) for purposes of meeting general or specific criteria for either the DQO or the LCL. If the DQO is satisfied and the average CE is greater than 100, then 100 percent CE must be considered the result of the test.

2.8 Alternative test methods for measuring VOC concentration must include a three-point calibration of the gas analysis instrument in the expected concentration range.

3. Data Quality Objective Approach

3.1 The purpose of the DQO is to allow sources to use alternative CE protocols and test methods while ensuring reasonable precision consistent with pertinent requirements of the Clean Air Act. In addition to the general criteria described in section 2, the specific DQO criterion is that the width of the two-sided 95 percent confidence interval of the mean measured value must be less than or equal to 10 percent of the mean measured value (see Figure 1). This ensures that 95 percent of the time, when the DQO is met, the actual CE value will be ± 5 percent of the mean measured value (assuming that the test protocol is unbiased).



3.2 The DQO calculation is made as follows using Equations 1 and 2:

$$P = \frac{a}{x_{avg}} \cdot 100 \quad \text{Eq 1}$$

$$a = \frac{t_{0.975} s}{\sqrt{n}} \quad \text{Eq 2}$$

Where:

a=distance from the average measured CE value to the endpoints of the 95-percent (two-sided) confidence interval for the measured value.

n=number of valid test runs.

P=DQO indicator statistic, distance from the average measured CE value to the endpoints of the 95-percent (two-sided) confidence interval, expressed as a percent of the average measured CE value.

s=sample standard deviation.

$t_{0.975}$ =t-value at the 95-percent confidence level (see Table 1).

x_{avg} =average measured CE value (calculated from all valid test runs).

x_i =the CE value calculated from the i th test run.

Number of valid test runs, n			Number of valid test runs, n		
	$t_{0.975}$	$t_{0.90}$		$t_{0.975}$	$t_{0.90}$
1 or 2	N/A	N/A	12	2.201	1.363
3	4.303	1.886	13	2.179	1.356
4	3.182	1.638	14	2.160	1.350
5	2.776	1.533	15	2.145	1.345
6	2.571	1.476	16	2.131	1.341
7	2.447	1.440	17	2.120	1.337
8	2.365	1.415	18	2.110	1.333
9	2.306	1.397	19	2.101	1.330
10	2.262	1.383	20	2.093	1.328
11	2.228	1.372	21	2.086	1.325

Table 1.—T-Values

3.3 The sample standard deviation and average CE value are calculated using Equations 3 and 4 as follows:

$$s = \left[\frac{\sum_{i=1}^n (x_i - x_{avg})^2}{n-1} \right]^{0.5} \quad \text{Eq 3}$$

$$x_{avg} = \frac{\sum_{i=1}^n x_i}{n} \quad \text{Eq 4}$$

3.4 The DQO criteria are achieved when all of the general criteria in section 2 are achieved and $P \leq 5$ percent (i.e., the specific DQO criterion is achieved). In order to meet this objective, facilities may have to conduct more than three test runs. Examples of calculating P , given a finite number of test runs, are shown below. (For purposes of this example it is assumed that all of the general criteria are met.)

3.5 Facility A conducted a CE test using a traditional liquid/gas mass balance and submitted the following results and the calculations shown in Equations 5 and 6:

Run	CE
1	96.1
2	105.0
3	101.2

Therefore:

$n=3$
 $t_{0.975}=4.30$
 $x_{avg}=100.8$
 $s=4.51$

$$a = \frac{(4.30)(4.51)}{\sqrt{n}} = 11.20 \quad \text{Eq 5}$$

$$P = \frac{11.2}{100.8} 100 = 11.11 \quad \text{Eq 6}$$

3.6 Since the facility did not meet the specific DQO criterion, they ran three more test runs.

Run	CE
4	93.2
5	96.2
6	87.6

3.7 The calculations for Runs 1-6 are made as follows using Equations 7 and 8:

$$n=6$$

$$t_{0.975}=2.57$$

$$x_{avg}=96.6$$

$$s=6.11$$

$$a = \frac{(2.57)(6.11)}{\sqrt{6}} = 6.41 \quad \text{Eq 7}$$

$$P = \frac{6.41}{96.6} 100 = 6.64 \quad \text{Eq 8}$$

3.8 The facility still did not meet the specific DQO criterion. They ran three more test runs with the following results:

Run	CE
7	92.9
8	98.3
9	91.0

3.9 The calculations for Runs 1-9 are made as follows using Equations 9 and 10:

$$n=9$$

$$t_{0.975}=2.31$$

$$x_{avg}=95.7$$

$$s=5.33$$

$$a = \frac{(2.31)(5.33)}{\sqrt{9}} = 4.10 \quad \text{Eq 9}$$

$$P = \frac{4.10}{95.7} 100 = 4.28 \quad \text{Eq 10}$$

3.10 Based on these results, the specific DQO criterion is satisfied. Since all of the general criteria were also satisfied, the average CE from the nine test runs can be used to determine compliance.

4. Lower Confidence Limit Approach

4.1 The purpose of the LCL approach is to provide sources, that may be performing much better than their applicable regulatory

requirement, a screening option by which they can demonstrate compliance. The approach uses less precise methods and avoids additional test runs which might otherwise be needed to meet the specific DQO criterion while still being assured of correctly demonstrating compliance. It is designed to reduce "false positive" or so called "Type II errors" which may erroneously indicate compliance where more variable test methods are employed. Because it encourages CE performance greater than that required in exchange for reduced compliance demonstration burden, the sources that successfully use the LCL approach could produce emission reductions beyond allowable emissions. Thus, it could provide additional benefits to the environment as well.

4.2 The LCL approach compares the 80 percent (two-sided) LCL for the mean measured CE value to the applicable CE regulatory requirement. In addition to the general criteria described in section 2, the specific LCL criteria are that either the LCL be greater than or equal to the applicable CE regulatory requirement or that the specific DQO criterion is met. A more detailed description of the LCL approach follows:

4.3 A source conducts an initial series of at least three runs. The owner or operator may choose to conduct additional test runs during the initial test if desired.

4.4 If all of the general criteria are met and the specific DQO criterion is met, then the average CE value is used to determine compliance.

4.5 If the data meet all of the general criteria, but do not meet the specific DQO criterion; and the average CE, using all valid test runs, is above 100 percent then the test sequence cannot be used to calculate the LCL. At this point the facility has the option of (a) conducting more test runs in hopes of meeting the DQO or of bringing the average CE for all test runs below 100 percent so the LCL can be used or (b) discarding all previous test data and retesting.

4.6 The purpose of the requirement in Section 4.5 is to protect against protocols and test methods which may be inherently biased high. This is important because it is impossible to have an actual CE greater than 100 percent and the LCL approach only looks at the lower end variability of the test results. This is different from the DQO which allows average CE values up to 105 percent because the DQO sets both upper and lower limits on test variability.

4.7 If at any point during testing the results meet the DQO, the average CE can be used for demonstrating compliance with the applicable regulatory requirement. Similarly, if the average CE is below 100 percent then the LCL can be used for demonstrating compliance with the applicable regulatory requirement without regard to the DQO.

4.8 The LCL is calculated at a 80 percent (two-sided) confidence level as follows using Equation 11:

$$LC_1 = x_{avg} - \frac{t_{0.90} s}{\sqrt{n}} \quad \text{Eq 11}$$

Where:

LC₁=LCL at a 80 percent (two-sided) confidence level.

n=number of valid test runs.

s=sample standard deviation.

t_{0.90}=t-value at the 80-percent (two-sided) confidence level (see Table 3-1).

x_{avg}=average measured CE value (calculated from all valid test runs).

4.9 The resulting LC₁ is compared to the applicable CE regulatory requirement. If LC₁ exceeds (i.e., is higher than) the applicable regulatory requirement, then a facility is in initial compliance. However, if the LC₁ is below the CE requirement, then the facility must conduct additional test runs. After this point the test results will be evaluated not only looking at the LCL, but also the DQO of ± 5 percent of the mean at a 95 percent confidence level. If the test results with the additional test runs meet the DQO before the LCL exceeds the applicable CE regulatory requirement, then the average CE value will be compared to the applicable CE regulatory requirement for determination of compliance.

4.10 If there is no specific CE requirement in the applicable regulation, then the applicable CE regulatory requirement is determined based on the applicable regulation and an acceptable destruction efficiency test. If the applicable regulation requires daily compliance and the latest CE compliance demonstration was made using the LCL approach, then the calculated LC₁ will be the highest CE value which a facility is allowed to claim until another CE demonstration test is conducted. This last requirement is necessary to assure both sufficiently reliable test results in all circumstances and the potential environmental benefits referenced above.

4.11 An example of calculating the LCL is shown below. Facility B's applicable regulatory requirement is 85 percent CE. Facility B conducted a CE test using a traditional liquid/gas mass balance and submitted the following results and the calculation shown in Equation 12:

Run	CE
1	94.2
2	97.6
3	90.5

Therefore:

$$n=3$$

$$t_{0.90}=1.886$$

$$x_{avg}=94.1$$

$$s=3.55$$

$$LC_1 = 94.1 - \frac{(1.886)(3.55)}{\sqrt{3}} = 90.23 \quad \text{Eq 12}$$

4.12 Since the LC₁ of 90.23 percent is above the applicable regulatory requirement of 85 percent then the facility is in compliance. The facility must continue to accept the LC₁ of 90.23 percent as its CE value until a new series of valid tests is conducted. (The data generated by Facility B do not meet the specific DQO criterion.)

5. Recommended Reporting for Alternative CE Protocols

5.1 If a facility chooses to use alternative CE protocols and test methods that satisfy either the DQO or LCL and the additional criteria in section 4., the following information should be submitted with each

test report to the appropriate regulatory agency:

1. A copy of all alternative test methods, including any changes to the EPA reference methods, QA/QC procedures and calibration procedures.

2. A table with information on each liquid sample, including the sample identification, where and when the sample was taken, and the VOC content of the sample;

3. The coating usage for each test run (for protocols in which the liquid VOC input is to be determined);

4. The quantity of captured VOC measured for each test run;

5. The CE calculations and results for each test run;

6. The DQO or LCL calculations and results; and

7. The QA/QC results, including information on calibrations (e.g., how often the instruments were calibrated, the calibration results, and information on calibration gases, if applicable).

6. Recommended Recordkeeping for Alternative CE Protocols.

6.1 A record should be kept at the facility of all raw data recorded during the test in a suitable form for submittal to the appropriate regulatory authority upon request.

[FR Doc. 96-13084 Filed 5-29-96; 3:45 am]

BILLING CODE 5560-50-P

FOR FURTHER INFORMATION CONTACT: Mr. James Szykman or Mr. Anthony Wayne, Emission Standards Division (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone (919) 541-2452 (Szykman) or (919) 541-5439 (Wayne).

SUPPLEMENTARY INFORMATION: In the Proposed Rules Section of this Federal Register, EPA is proposing a rule that is identical to this direct final rule. If significant, adverse comments are timely received on the proposed rule, the direct final rule will be withdrawn, and all such comments will be addressed in a subsequent final rule based on the proposed rule. If no significant, adverse comments are timely received on the proposed final rule, then the direct final rule remains effective upon publication, and no further action is contemplated on the parallel proposal published today.

The information presented in this preamble is organized as follows:

- I. Background
- II. Summary of Rule Change and Rationale
 - A. Permit Application Deadline
 - B. Effective Date
 - C. Judicial Review
- III. Administrative Requirements
 - A. Docket
 - B. Regulatory Impact Analysis
 - C. Impact on Reporting Requirements
 - D. Impact on Small Entities
 - E. Reduction of Governmental Burden
 - F. Environmental Justice
 - G. Unfunded Mandates

I. Background

Section 112(e) of the Clean Air Act (the Act) requires the Agency to publish a schedule for promulgating regulations establishing hazardous air pollutants (HAP) emission standards for all source categories listed pursuant to Section 112 of the Act. The Act further directs that this regulatory schedule require the promulgation of emission standards for at least 40 source categories by 1992, for at least 25 percent of the listed categories by 1994, for at least 50 percent of the listed categories by 1997, and all remaining categories by the year 2000. These are commonly referred to as the 2-year, 4-year, 7-year, and the 10-year maximum achievable control technology (MACT) standards, respectively. This regulatory schedule was published by EPA on December 3, 1993 (58 FR 64931).

If EPA should fail to promulgate a MACT standard for a listed source category by 18 months after the date in the regulatory schedule, section 112(j) of the Act requires owners or operators of major sources within that source category to obtain a Title V permit, if the major source is located in a State with an approved Title V permit program. This permit will require compliance with an emission limitation equivalent to that which the major source would have been subject to had EPA promulgated a timely MACT standard for that source category.

On May 20, 1994, EPA issued a final rule for implementing section 112(j) (59 FR 26429). This rule requires major source owners or operators to submit a permit application by the date 18 months after a missed date on the regulatory schedule. In accordance with this regulation, the deadlines for submittal of permit applications are as follows:

Emission standard	Regulatory schedule	112(j) permit application deadline
4-year	11/15/94	5/15/96
7-year	11/15/97	5/15/99
10-year	11/15/00	5/15/02

II. Summary of Rule Change and Rationale

A. Permit Application Deadline

To date, EPA has promulgated several 4-year MACT standards and intends to promulgate MACT standards for all of the remaining 4-year source categories within the 18-month period following the date in the regulatory schedule. All of the remaining 4-year source categories for which MACT standards must be promulgated have court-ordered deadlines with the latest deadline coinciding with the section 112(j) permit application deadline of May 15, 1996.

In order for owners or operators of major sources to submit a timely permit application in the event that EPA would fail to promulgate a 4-year emission standard, applicants would have to begin preparation of these applications immediately. If EPA promulgates standards in accordance with the court-ordered schedule, this would result in an unnecessary burden for both the owners or operators and the Title V permitting agencies.

The EPA believes that ample authority for this rule revision exists under the *de minimis* doctrine. That doctrine allows EPA to promulgate a rule that avoids a statutory requirement if (1) following that requirement would yield an environmental benefit of trivial or no value, and (2) the statutory scheme is not so rigid as to preclude this result. *Alabama Power Co. v. Costle*, 636 F.2d 323, 360-61 (D.C. Cir 1979). The EPA believes both tests are met here. Regarding the first point, it should be intuitively apparent that requiring sources to complete applications for a case-by-case determination is pointless when it is very likely that EPA will promulgate the MACT standard within a timeframe that renders the entire case-by-case exercise moot. This is precisely the case with regard to the pending 4-year MACT standards, all of which are

under a court-ordered deadline for issuance close to the date applications are due. Regarding the second test, the language of section 112(j)(2), requiring that applications be submitted on a date "beginning" 18 months after a deadline has been missed, and the clear intent of the statute that case-by-case determinations should be made where they will serve as a substitute for the pending MACT standard, together suggest a level of flexibility in the statutory scheme sufficient to allow resort to the *de minimis* rationale.

The EPA is amending the definition of "Section 112(j) deadline" in § 63.51 of the final rule to delay the section 112(j) permit application deadline for all 4-year source categories by 180 days until November 15, 1996. The EPA believes that this new application deadline will allow sufficient time to promulgate the remaining 4-year emission standards and is consistent with the intent of section 112(j). If EPA does promulgate the emission standards before this time, permit applications or reopenings will be governed by Title V requirements.

B. Effective Date

The EPA is publishing this rule as a final rule, and it is effective immediately upon publication. The Agency believes that this action is supported by the "good cause" exception in the Administrative Procedures Act, which permits an agency for "good cause" to proceed directly to a final rule where issuing a proposed rule would be "impracticable, unnecessary, or contrary to the public interest" [5 U.S.C. 553(b)(B)] and for "good cause found" [5 U.S.C. 553(d)] to dispense with the general requirement that a rule be published 30 days before its effective date. The EPA believes that good cause exists here to issue a final, immediately effective rule because of the nearness of the May 15, 1996, permit application deadline (for major sources in the 4-year source category) specified in the May 20, 1994 (59 FR 26429) final rule. If the changes in this rulemaking were only being proposed, then the May 15, 1996, deadline would still be in effect and this would negate the intent of this change to the rule to delay the permit application deadline until November 15, 1996, for sources in the 4-year source category. Furthermore, EPA views this action to delay the permit application deadline as noncontroversial.

C. Judicial Review

Under Section 307(b)(1) of the Act, judicial review of the actions taken by this 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 within 60 days of publication of this action. Under Section 307(b)(2) of the Act, the requirements that are the subject of this final rule may not be challenged later in civil or criminal proceedings brought by EPA to enforce these requirements.

III. Administrative Requirements

A. Docket

The docket for this regulatory action is A-93-32, the same docket as the original final rule, and a copy of today's amendment to the final rule will be included in the docket. The docket is an organized and complete file of all the information submitted to, or otherwise considered by, EPA in the development of the original rulemaking. The principal purposes of the docket are:

- (1) To allow interested parties a means to identify and locate documents so that they can effectively participate in the rulemaking process, and
- (2) To serve as the record in case of judicial review. The docket is available for public inspection at EPA's Air and Radiation Docket and Information Center, which is listed under the ADDRESSES section of this document.

B. Regulatory Impact Analysis

This rule was classified "non-significant" under Executive Order 12866 and therefore was not reviewed by the Office of Management and Budget.

C. Impact on Reporting Requirements

The information collection requirements of the previously promulgated rule for Regulations Governing Equivalent Emission Limitations by Permit were submitted to and approved by the Office of Management and Budget. A copy of this Information Collection Request (ICR) document (OMB control number 2060-0266) may be obtained from Sandy Farmer, OPPE Regulatory Information Division (2136), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460, or by calling (202) 260-2740. Today's change to the final rule to delay the deadline for submittal of section 112(j) permit applications does not affect the information collection burden estimates made previously. Therefore, the ICR has not been revised.

D. Impact on Small Entities

The Regulatory Flexibility Act of 1980 requires the identification of potentially adverse impacts of Federal regulations upon small business entities. The Act specifically requires the completion of a Regulatory Flexibility Analysis in those

instances where small business impacts are possible. Because this rulemaking imposes no economic impacts, adverse or otherwise, a Regulatory Flexibility Analysis has not been prepared.

Pursuant to the provisions of 5 U.S.C. 605(b), I hereby certify that this rule will not have a significant economic impact on a substantial number of small business entities.

E. Reduction of Governmental Burden

Executive Order 12875 ("Enhancing the Intergovernmental Partnership") is designed to reduce the burden to State, local, and Tribal governments of the cumulative effect of unfunded Federal mandates. The Order recognizes the need for these entities to be free from unnecessary Federal regulation to enhance their ability to address problems they face and provides for Federal agencies to grant waivers to these entities from discretionary Federal requirements. The Order applies to any regulation that is not required by statute and that creates a mandate upon a State, local, or Tribal government. The EPA anticipates that there will be no additional cost burden imposed on State, local, and Tribal governments as a result of today's action. Indeed, the purpose of the action is to reduce unnecessary burden on permitting agencies.

F. Environmental Justice

Executive Order 12898 requires that each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations. Today's action will help ensure timely compliance and the application of consistent regulatory requirements by allowing the section 112(d) MACT standards to become effective without triggering an unnecessary section 112(j) process. Therefore, no adverse human health or environmental effects are anticipated as a result of today's action.

G. Unfunded Mandates

Under Section 202 of the Unfunded Mandates Reform Act of 1995 ("Unfunded Mandates Act"), the EPA must prepare a budgetary impact statement to accompany any proposed or final rule that includes a Federal mandate that may result in estimated costs to State, local, or tribal governments in the aggregate; or to the private sector, of \$100 million or more. Under Section 205, the EPA must select

the most cost-effective and least burdensome alternative that achieves the objectives of the rule and is consistent with statutory requirements. Section 203 requires the EPA to establish a plan for informing and advising any small governments that may be significantly or uniquely impacted by the rule.

The EPA has determined that the action promulgated today does not include 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. Therefore, the requirements of the Unfunded Mandates Act do not apply to this action.

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practices and procedures, Air pollution control, Hazardous substances, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: May 3, 1996.

Carol M. Browner,
Administrator.

For the reasons set out in the preamble, 40 CFR Part 63 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. In § 63.51, the definition of "Section 112(j) deadline" is revised to read as follows:

§ 63.51 Definitions.

* * * * *

Section 112(j) deadline means the date 18 months, after the date by which a relevant standard is scheduled to be promulgated under this part, except for all major sources listed in the source category schedule for which a relevant standard is scheduled to be promulgated by November 15, 1994, the section 112(j) deadline is November 15, 1996.

* * * * *

[FR Doc. 96-11737 Filed 5-9-96; 8:45 am]

BILLING CODE 6560-50-P

40 CFR Part 81

[AZR91-0003; FRL-5503-7]

Clean Air Act Reclassification;
Arizona-Phoenix Nonattainment Area;
PM₁₀

AGENCY: Environmental Protection
Agency (EPA).

ACTION: Final rule.

action must be filed in the United States Court of Appeals for the appropriate circuit by June 24, 1996. 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, Hydrocarbons, Incorporation by reference, Intergovernmental relations, Ozone, Reporting and recordkeeping requirements.

Dated: April 5, 1996.

Valdas V. Adamkus,
Regional Administrator.

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. 7401-7671q.

Subpart YY—Wisconsin

2. Section 52.2570 is amended by adding paragraph (c)(93) to read as follows:

§ 52.2570 Identification of plan.

(c) * * *
(93) A revision to the ozone State Implementation Plan (SIP) was submitted by the Wisconsin Department of Natural Resources on December 11, 1995 and later supplemented on January 12, 1996. This revision consists of a volatile organic compound regulation that establishes reasonably available control technology for facilities that use industrial adhesives.

(i) Incorporation by reference. The following sections of the Wisconsin Administrative Code are incorporated by reference.

(A) NR 422.02(1e), (1m) and (28j) as created and published in the (Wisconsin) Register, August, 1995, No. 476, effective September 1, 1995.

(B) NR 422.127 as created and published in the (Wisconsin) Register, August, 1995, No. 476, effective September 1, 1995.

(C) NR 422.132(1)(c) as repealed, recreated and published in the

(Wisconsin) Register, August, 1995, No. 476, effective September 1, 1995.

[FR Doc. 96-10129 Filed 4-24-96; 8:45 am]
BILLING CODE 5560-50-P

40 CFR Part 52

[FL-64-2-9611a; FRL-5444-4]

Approval and Promulgation of Implementation Plans, Florida: Approval of Revisions to the Florida SIP

AGENCY: Environmental Protection Agency (EPA).

ACTION: Direct final rule.

SUMMARY: EPA is approving revisions to the Florida State Implementation Plan (SIP) submitted by the State of Florida through the Florida Department of Environmental Protection (FDEP) on April 24, 1995. This submittal includes amendments to the federally enforceable state operating permit program and the SIP regulations for perchloroethylene dry cleaning facilities.

DATES: This final rule will be effective June 24, 1996 unless adverse or critical comments are received by May 28, 1996. If the effective date is delayed, timely notice will be published in the *Federal Register*.

ADDRESSES: Written comments on this action should be addressed to Joey LeVasseur, at the EPA Regional Office listed below. Copies of the documents relative to this action are available for public inspection during normal business hours at the following locations.

Air and Radiation Docket and Information Center (Air Docket 6102), U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460.

EPA, Region 4 Air Programs Branch, 345 Courtland Street NE., Atlanta, Georgia 30365.

Florida Department of Environmental Protection, Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

FOR FURTHER INFORMATION CONTACT: Interested persons wanting to examine documents relative to this action should make an appointment with the Region 4 Air Programs Branch at least 24 hours before the visiting day. To schedule the appointment or to request additional information, contact Joey LeVasseur, Regulatory Planning and Development Section, Air Programs Branch, Air, Pesticides & Toxics Management Division, Region 4 EPA, 345 Courtland Street, NE., Atlanta, Georgia 30365. The

telephone number is 404/347-3555 ext. 4215. Reference file FL64-2-9611a.

SUPPLEMENTARY INFORMATION: EPA is approving revisions to the Florida SIP submitted by the State of Florida through the FDEP on April 24, 1995. These revisions amend the federally enforceable state operating permit program and the SIP regulations for perchloroethylene dry cleaning facilities. The following is a description of the revisions. The regulations are more fully discussed in the official SIP submittal that is available at the Region IV office listed under the ADDRESSES section of this notice.

62-210.200 and 62.296.200

These sections were updated to include "emission control equipment" within the definition of "dry cleaning facility," for consistency with the definitions and requirements of the Title V program.

62-210.300(2)(b)

This section previously was unclear and was revised to clarify the requirements for federally enforceable state operating permits (FESOPs).

62-210.300(4)

This section was revised to provide a temporary exemption to area source dry cleaning facilities from the State's minor source preconstruction review requirements.

62-296.412

This section was revised to update the applicable requirements for perchloroethylene dry cleaning facilities. The amendments make it clear that perchloroethylene facilities which have not yet been permitted under Title V continue to be subject to the requirements of this section in the interim.

Final Action

In this action, EPA is approving the revision to the SIP submitted by the State of Florida through the FDEP on April 24, 1995. The EPA is publishing this rule making without a prior proposal for approval because the Agency views this as a noncontroversial amendment and anticipates no adverse comments. However, in a separate document in this *Federal Register* publication, the EPA is proposing to approve the SIP revision should adverse or critical comments be filed. This action will be effective June 24, 1996 unless, within 30 days of its publication, adverse or critical comments are received.

If the EPA receives such comments, this action will be withdrawn before the

effective date by publishing a subsequent document that will withdraw the final action. All public comments received will then be addressed in a subsequent final rule based on the separate proposed rule. The EPA will not institute a second comment period on this action. Any parties interested in commenting on this action should do so at this time. If no such comments are received, the public is advised that this action will be effective June 24, 1996.

Under section 307(b)(1) of the Clean Air Act (CAA), 42 U.S.C. 7607(b)(1), petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by June 24, 1996. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for 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) of the CAA, 42 U.S.C. 7607(b)(2).)

This action has been classified as a Table 3 action for signature by the Regional Administrator under the procedures published in the Federal Register on January 19, 1989 (54 FR 2214-2225), as revised by a July 10, 1995 memorandum from Mary Nichols, Assistant Administrator for Air and Radiation. The Office of Management and Budget (OMB) has exempted this regulatory action from E.O. 12866 review.

Nothing in this action shall be construed as permitting or allowing or establishing a precedent for any future request for a revision to any state implementation plan. Each request for revision to the state implementation plan shall be considered separately in light of specific technical, economic, and environmental factors and in relation to relevant statutory and regulatory requirements.

Under the Regulatory Flexibility Act, 5 U.S.C. 600 *et seq.*, EPA must prepare a regulatory flexibility analysis assessing the impact of any proposed or final rule on small entities. 5 U.S.C. 603 and 604. Alternatively, EPA may certify that the rule will not have a significant impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and government entities with jurisdiction over populations of less than 50,000.

SIP approvals under section 110 and subchapter I, part D of the CAA do not

create any new requirements, but simply approve requirements that the State is already imposing. Therefore, because the Federal SIP-approval does not impose any new requirements, I certify that it does not have a significant impact on any small entities affected. Moreover, due to the nature of the Federal-state relationship under the CAA, preparation of a regulatory flexibility analysis would constitute Federal inquiry into the economic reasonableness of state action. The CAA forbids EPA to base its actions concerning SIPs on such grounds. *Union Electric Co. v. U.S. E.P.A.*, 427 U.S. 246, 256-66 (S.Ct. 1976); 42 U.S.C. section 7410(a)(2) and 7410(k)(3).

Unfunded Mandates

Under Sections 202, 203, and 205 of the Unfunded Mandates Reform Act of 1995 ("Unfunded Mandates Act"), signed into law on March 22, 1995, EPA must undertake various actions in association with proposed or final rules that include a Federal mandate that may result in estimated costs of \$100 million or more to the private sector, or to State, local, or tribal governments in the aggregate.

Through submission of this state implementation plan or plan revision, the State and any affected local or tribal governments have elected to adopt the program provided for under Section 110 of the CAA. These rules may bind State, local and tribal governments to perform certain actions and also require the private sector to perform certain duties. EPA has examined whether the rules being approved by this action will impose no new requirements, since such sources are already subject to these regulations under State law. Accordingly, no additional costs to State, local, or tribal governments, or to the private sector, result from this action, and therefore there will be no significant impact on a substantial number of small entities.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Hydrocarbons, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Reporting and recordkeeping requirements.

Dated: January 29, 1996.

Phyllis P. Harris,

Acting Regional Administrator.

Part 52 of chapter I, title 40, *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. 7401-7671q.

Subpart K—Florida

2. Section 52.520, is amended by adding paragraph (c)(94) to read as follows:

§ 52.520 Identification of plan.

(c) * * *
(94) Revisions to the Florida SIP regarding perchloroethylene dry cleaning facilities submitted on April 24, 1995.

(i) Incorporation by reference. Sections 62-210.200(17) and (48)(c); 62-210.300(2)(b) and (4); 62-296.200(58); and 62-296.412 of the F.A.C., effective April 18, 1995.
(ii) Other material. None.

[FR Doc. 96-10127 Filed 4-24-96; 8:45 am]
BILLING CODE 5550-50-P

40 CFR Parts 60 and 61

[AD-FRL 5407-4]

Standards of Performance for New Stationary Sources National Emission Standards for Hazardous Air Pollutants Addition of Method 29 to Appendix A of Part 60 and Amendments to Method 101A of Appendix B of Part 61

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This rule adds Method 29, "Determination of Metals Emissions from Stationary Sources," to Appendix A of Part 60, and makes amendments to Method 101A of Appendix B of Part 61. Method 29 is being added so that it can be used to determine cadmium, lead, and mercury emissions from municipal waste combustors (MWC) under subpart Ea of part 60. The amendments to Method 101A of appendix B of part 61 are to expand that method's applicability, and to revise procedures for handling and analyzing samples collected by the sampling train.

EFFECTIVE DATE: April 25, 1996.

Incorporation by Reference. The incorporation by reference of certain publications listed in the regulation is approved by the Director of the Office of the Federal Register April 25, 1996.

ADDRESSES: Docket. Docket No. A-94-28, containing materials relevant to this rulemaking, is available for public inspection and copying between 8:30 a.m. and Noon, and 1:30 and 3:30 p.m.,

Monday through Friday, at EPA's Air And Docket Section, Room M1500, First Floor, Waterside Mall, Gallery 1, 401 M Street, S.W., Washington, D.C. 20460. A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: William Grimley at (919) 541-1065, Source Characterization Group B (MD-19), Emissions, Monitoring, and Analysis Division, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

SUPPLEMENTARY INFORMATION:

I. The Rulemaking

Under Subparts Ca and Ea, the EPA promulgated guidelines and standards to regulate mercury, cadmium, and lead emissions from MWC's which were published in the Federal Register on December 19, 1995 (see 60 FR 65382). Method 29 is being promulgated for addition to Appendix A of 40 CFR Part 60 and will serve as the compliance test method for mercury, cadmium, and lead. Amendments to Method 101A of Appendix B of Part 61 are being promulgated to provide consistency with Method 29. These regulations were proposed on September 20, 1994 (see 59 FR 48259).

II. Public Participation

The opportunity to hold a public hearing on October 20, 1994 at 10 a.m. was present in the proposal notice, but no one wanted to make an oral presentation. The public comment period was from September 21, 1994 to November 21, 1994.

III. Significant Comments and Changes to the Proposed Rulemaking

One comment letter was received from the proposed rulemaking. The comments and responses are summarized in this preamble.

The first comment dealt with the analytical detection limits stated in Method 29. The commenter believes the detection limits are unrealistically low, and represent values achievable only under ideal conditions. The commenter concludes by saying that the method should state that it is the analyst's responsibility to determine the actual detection limit achieved.

The detection limits stated in Method 29 are those listed in the SW-846 methods manual, and EPA believes they are reasonable ones for use in this application of SW-846 analytical methods. However, Method 29 as proposed is clear in its discussion of the application of quality assurance procedures to document the quality of the data actually produced, and is also

clear in the description of the procedure to be used to establish the actual detection limits achieved during the measurement of emissions.

The second comment addressed the point that dilution is likely to be effective in avoiding the analytical problem of spectral interference only if the analyte is present at a much greater concentration than the interferant. The commenter then suggests that Method 29 be revised to say that the effective way to adjust for spectral interference is by making background corrections or overlap corrections.

The EPA agrees with this comment, and Section 2.5 of the Method has been revised to permit these corrective techniques.

The third comment addressed the use of an alumina torch in the inductively coupled argon plasma (ICAP) emission spectroscopy procedure. The commenter believes that few ICAP users have this capability, and that an alternative technique for dealing with hydrogen fluoride could be suggested in the Method.

The EPA notes that the use of an alumina torch in this procedure has been described in related methodology for several years and is commercially available and is in use by many analysts. The alternative procedure suggested in the comment may be suitable if the detection limits needed in the particular emission measurement situation can be met.

The fourth comment addressed the required purity of the nickel nitrate used to produce the nickel nitrate matrix modifier. The commenter suggests that commercial nickel nitrate may contain small amounts of impurities.

The EPA is not aware of instances where commercial nickel nitrate that would be purchased for this purpose would contain objectionable amounts of impurities, however the Method has been revised to permit other nickel compounds of suitable purity to be used.

The fifth and final comment made a general statement concerning the length and complexity of the Method, with the commenter suggesting that the EPA should attempt to streamline and simplify the Method in order to make it less costly and easier to use.

The EPA recognizes the need to simplify methods to reduce costs, and believes that to meet the needed quality of the data to be generated by Method 29, that the best possible effort has been made.

IV. Administrative Requirements

A. Docket

The docket is an organized and complete file of all the information submitted to or otherwise considered by the EPA in the development of this final rulemaking. The principal purposes of the docket are: (1) to allow interested parties to identify and locate documents so that they can effectively participate in the rulemaking process, and (2) to serve as the record in case of judicial review (except for interagency review materials) [Section 307(d)(7)(A)].

B. Office of Management and Budget Review

1. Paperwork Reduction Act

This rule does not contain any information collection requirements subject to the Office of Management and Budget (OMB) review under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*

2. Executive Order 12866 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 the OMB review and the requirements of the Executive Order. The Order defines "significant" regulatory action as one that is likely to lead to 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, users 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, the EPA does not consider this action to be significant because it does not involve any of the above mentioned items.

D. Unfunded Mandates Act

Section 202 of the Unfunded Mandates Reform Act of 1995 ("Unfunded Mandates Act") (signed into law on March 22, 1995) requires that the Agency prepare a budgetary impact statement before promulgating a rule that includes a Federal mandate

that may result in expenditure by State, local, and tribal governments, in aggregate, or by the private sector of \$100 million or more in any one year. Section 204 requires the Agency to establish a plan for obtaining input from and informing, educating, and advising any small governments that may be significantly or uniquely affected by the rule.

Under section 205 of the Unfunded Mandates Act, the Agency must identify and consider a reasonable number of regulatory alternatives before promulgating a rule for which a budgetary impact statement must be prepared. The agency must select from those alternatives the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule, unless the Agency explains why this alternative is not selected or the selection of this alternative is inconsistent with law.

Because this rule is estimated to result in the expenditure by State, local, and tribal governments or the private sector of less than \$100 million in any one year, the Agency has not prepared a budgetary impact statement or specifically addressed the selection of the least costly, most cost-effective, or least burdensome alternative. Because small governments will not be significantly or uniquely affected by this rule, the Agency is not required to develop a plan with regard to small governments.

E. Regulatory Flexibility Act Compliance

Pursuant to the provisions of 5 U.S.C. 601 *et seq.*, I hereby certify that this final rule will not have an economic impact on small entities because no additional costs will be incurred.

List of Subjects in 40 CFR Parts 60 and 61

Environmental protection, Air pollution control, Arsenic, Asbestos, Beryllium, Cadmium, Lead, Hazardous materials, Incorporation by reference, Intergovernmental relations, Mercury, Municipal waste combustors, Reporting and recordkeeping requirements, Sewage sludge incineration.

Statutory Authority. The statutory authority for this final rule is provided by sections 101, 111, 112, 114, 116, 129, and 301 of the Clean Air Act, as amended; 42 U.S.C., 7401, 7411, 7412, 7414, 7416, 7429, and 7601.

Dated: January 18, 1996.

Carol M. Browner,
Administrator.

40 CFR parts 60 and 61 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, 7411, 7412, 7414, 7416, and 7601.

2. Section 60.17 is amended by revising paragraph (a)(22) and by adding paragraphs (i) and (j) to read as follows:

§ 60.17 Incorporations by reference.

* * * * *

(a) * * *

(22) ASTM D 1193-77, Standard Specification for Reagent Water, for appendix A to part 60, Method 6, par. 3.1.1; Method 7, par. 3.2.2; Method 7C, par. 3.1.1; Method 7D, par. 3.1.1; Method 8, par. 3.1.3; Method 12, par. 4.1.3; Method 25D, par. 3.2.2.4; Method 26A, par. 3.1.1; Method 29, par. 4.2.2., 4.4.2., and 4.5.6.

* * * * *

(i) Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846 Third Edition (November 1986), as amended by Updates I (July, 1992), II (September 1994), IIA (August, 1993), and IIB (January, 1995). Test Method are incorporated by reference for appendix A to part 60, Method 29, par. 2.2.1; 2.3.1; 2.5; 3.3.12.1; 3.3.12.2; 3.3.13; 3.3.14; 5.4.3; 6.2; 6.3; 7.2.1; 7.2.3; and Table 29-2. The Third Edition of SW-846 and Updates I, II, IIA, and IIB (document number 955-001-00000-1) are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 512-1800. Copies may be obtained from the Library of the U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460.

(j) Standard Methods for the Examination of Water and Wastewater, 16th edition, 1985. Method 303F Determination of Mercury by the Cold Vapor Technique. This document may be obtained from the American Public Health Association, 1015 18th Street, NW., Washington, DC 20036, and is incorporated by reference for Method 29, par. 5.4.3; 6.3; and 7.2.3 of appendix A to part 60.

3. In part 60, by adding method 29 to appendix A to read as follows:

Appendix A—Test Methods

* * * * *

Method 29—Determination of Metals Emissions from Stationary Sources

1. Applicability and Principle

1.1 Applicability. This method is applicable to the determination of antimony (Sb), arsenic (As), barium (Ba), beryllium (Be), cadmium (Cd), chromium (Cr), cobalt (Co), copper (Cu), lead (Pb), manganese (Mn), mercury (Hg), nickel (Ni), phosphorus (P),

selenium (Se), silver (Ag), thallium (Tl), and zinc (Zn) emissions from stationary sources. This method may be used to determine particulate emissions in addition to the metals emissions if the prescribed procedures and precautions are followed.

1.1.1 Hg emissions can be measured, alternatively, using EPA Method 101A of Appendix B, 40 CFR Part 61. Method 101-A measures only Hg but it can be of special interest to sources which need to measure both Hg and Mn emissions.

1.2 Principle. A stack sample is withdrawn isokinetically from the source, particulate emissions are collected in the probe and on a heated filter, and gaseous emissions are then collected in an aqueous acidic solution of hydrogen peroxide (analyzed for all metals including Hg) and an aqueous acidic solution of potassium permanganate (analyzed only for Hg). The recovered samples are digested, and appropriate fractions are analyzed for Hg by cold vapor atomic absorption spectroscopy (CVAAS) and for Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mn, Ni, P, Se, Ag, Tl, and Zn by inductively coupled argon plasma emission spectroscopy (ICAP) or atomic absorption spectroscopy (AAS). Graphite furnace atomic absorption spectroscopy (GFAAS) is used for analysis of Sb, As, Cd, Co, Pb, Se, and Tl if these elements require greater analytical sensitivity than can be obtained by ICAP. If one so chooses, AAS may be used for analysis of all listed metals if the resulting in-stack method detection limits meet the goal of the testing program. Similarly, inductively coupled plasma-mass spectroscopy (ICP-MS) may be used for analysis of Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mn, Ni, As, Tl and Zn.

2. Range, Detection Limits, Precision, and Interferences

2.1 Range. For the analysis described and for similar analyses, the ICAP response is linear over several orders of magnitude. Samples containing metal concentrations in the nanograms per ml (ng/ml) to micrograms per ml (µg/ml) range in the final analytical solution can be analyzed using this method. Samples containing greater than approximately 50 µg/ml As, Cr, or Pb should be diluted to that level or lower for final analysis. Samples containing greater than approximately 20 µg/ml of Cd should be diluted to that level before analysis.

2.2 Analytical Detection Limits. (Note: See section 2.3 for the description of in-stack detection limits.)

2.2.1 ICAP analytical detection limits for the sample solutions (based on Method 6010 in EPA Publication SW-846, Third Edition (November 1986) including updates I, II, IIA, and IIB, as incorporated by reference in § 60.17(i)) are approximately as follows: Sb (32 ng/ml), As (53 ng/ml), Ba (2 ng/ml), Be (0.3 ng/ml), Cd (4 ng/ml), Cr (7 ng/ml), Co (7 ng/ml), Cu (6 ng/ml), Pb (42 ng/ml), Mn (2 ng/ml), Ni (15 ng/ml), P (75 ng/ml), Se (75 ng/ml), Ag (7 ng/ml), Tl (40 ng/ml), and Zn (2 ng/ml). ICP-MS analytical detection limits (based on based on Method 6020 in EPA Publication SW-846, Third Edition (November 1986) as incorporated by reference in § 60.17(i)) are lower generally by a factor of ten or more. Be is lower by a factor

of three. The actual sample analytical detection limits are sample dependent and may vary due to the sample matrix.

2.2.2 The analytical detection limits for analysis by direct aspiration AAS are approximately as follows: Sb (200 ng/ml), As (2 ng/ml), Ba (100 ng/ml), Be (5 ng/ml), Cd (5 ng/ml), Cr (50 ng/ml), Co (50 ng/ml), Cu (20 ng/ml), Pb (100 ng/ml), Mn (10 ng/ml), Ni (40 ng/ml), Se (2 ng/ml), Ag (10 ng/ml), Tl (100 ng/ml), and Zn (5 ng/ml).

2.2.3 The detection limit for Hg by CVAAS (on the resultant volume of the digestion of the aliquots taken for Hg analyses) can be approximately 0.02 to 0.2 ng/ml, depending upon the type of CVAAS analytical instrument used.

2.2.4 The use of GFAAS can enhance the detection limits compared to direct aspiration AAS as follows: Sb (3 ng/ml), As (1 ng/ml), Be (0.2 ng/ml), Cd (0.1 ng/ml), Cr (1 ng/ml), Co (1 ng/ml), Pb (1 ng/ml), Se (2 ng/ml), and Tl (ng/ml).

2.3 In-stack Detection Limits.

2.3.1 For test planning purposes in-stack detection limits can be developed by using the following information (1) the procedures described in this method, (2) the analytical detection limits described in Section 2.2 and in EPA Publication SW-846, Third Edition (November 1986) including updates I, II, IIIA and IIB, as incorporated by reference in § 60.17(i), (3) the normal volumes of 300 ml (Analytical Fraction 1) for the front-half and

150 ml (Analytical Fraction 2A) for the back-half samples, and (4) a stack gas sample volume of 1.25 m³. The resultant in-stack method detection limits for the above set of conditions are presented in Table 29-1 and were calculated by using Eq. 29-1.

$$A \times B / C = D \quad \text{Eq. 29-1}$$

Where:

A=Analytical detection limit, µg/ml.

B=Liquid volume of digested sample prior to aliquotting for analysis, ml.

C=Stack sample gas volume, dsm³.

D=In-stack detection limit, µg/m³.

TABLE 29-1.—IN-STOCK METHOD DETECTION LIMITS (µg/m³) FOR THE FRONT-HALF, THE BACK-HALF, AND THE TOTAL SAMPLING TRAIN USING ICAP AND AAS

Metal	Front-half: Probe and filter	Back-half: Impingers 1-3	Back-half: Impingers (4-6)*	Total train:
Antimony	17.7 (0.7)	13.8 (0.4)		111.5 (1.1)
Arsenic	112.7 (0.3)	16.4 (0.1)		119.1 (0.4)
Barium	0.5	0.3		0.8
Beryllium	10.07 (0.05)	10.04 (0.03)		10.11 (0.08)
Cadmium	11.0 (0.02)	10.5 (0.01)		11.5 (0.03)
Chromium	11.7 (0.2)	10.8 (0.1)		12.5 (0.3)
Cobalt	11.7 (0.2)	10.8 (0.1)		12.5 (0.3)
Copper	1.4	0.7		2.1
Lead	110.1 (0.2)	15.0 (0.1)		115.1 (0.3)
Manganese	10.5 (0.2)	10.2 (0.1)		10.7 (0.3)
Mercury	20.06	20.3	20.2	20.56
Nickel	3.6	1.8		5.4
Phosphorus	18	9		27
Selenium	118 (0.5)	19 (0.3)		127 (0.8)
Silver	1.7	0.9		2.6
Thallium	19.6 (0.2)	14.8 (0.1)		114.4 (0.3)
Zinc	0.5	0.3		0.8

*Mercury analysis only.

1 Detection limit when analyzed by GFAAS.

2 Detection limit when analyzed by CVAAS, estimated for Back-Half and Total Train. See Sections 2.2 and 5.4.3.

Note: Actual method in-stack detection limits may vary from these values, as described in Section 2.3.3.

2.3.2 To ensure optimum precision/resolution in the analyses, the target concentrations of metals in the analytical solutions should be at least ten times their respective analytical detection limits. Under certain conditions, and with greater care in the analytical procedure, these concentrations can be as low as approximately three times the respective analytical detection limits without seriously impairing the precision of the analyses. On at least one sample run in the source test, and for each metal analyzed, perform either repetitive analyses, Method of Standard Additions, serial dilution, or matrix spike addition, etc., to document the quality of the data.

2.3.3 Actual in-stack method detection limits are based on actual source sampling parameters and analytical results as described above. If required, the method in-stack detection limits can be improved over those shown in Table 29-1 for a specific test by either increasing the sampled stack gas volume, reducing the total volume of the digested samples, improving the analytical

detection limits, or any combination of the three. For extremely low levels of Hg only, the aliquot size selected for digestion and analysis can be increased to as much as 10 ml, thus improving the in-stack detection limit by a factor of ten compared to a 1 ml aliquot size.

2.3.3.1 A nominal one hour sampling run will collect a stack gas sampling volume of about 1.25 m³. If the sampling time is increased to four hours and 5 m³ are collected, the in-stack method detection limits would be improved by a factor of four compared to the values shown in Table 29-1.

2.3.3.2 The in-stack detection limits assume that all of the sample is digested and the final liquid volumes for analysis are the normal values of 300 ml for Analytical Fraction 1, and 150 ml for Analytical Fraction 2A. If the volume of Analytical Fraction 1 is reduced from 300 to 30 ml, the in-stack detection limits for that fraction of the sample would be improved by a factor of ten. If the volume of Analytical Fraction 2A is reduced from 150 to 25 ml, the in-stack

detection limits for that fraction of the sample would be improved by a factor of six. Matrix effect checks are necessary on sample analyses and typically are of much greater significance for samples that have been concentrated to less than the normal original sample volume. Reduction of Analytical Fractions 1 and 2A to volumes of less than 30 and 25 ml, respectively, could interfere with the redissolving of the residue and could increase interference by other compounds to an intolerable level.

2.3.3.3 When both of the modifications described in Sections 2.3.3.1 and 2.3.3.2 are used simultaneously on one sample, the resultant improvements are multiplicative. For example, an increase in stack gas volume by a factor of four and a reduction in the total liquid sample digested volume of both Analytical Fractions 1 and 2A by a factor of six would result in an improvement by a factor of twenty-four of the in-stack method detection limit.

2.4 Precision. The precision (relative standard deviation) for each metal detected in a method development test performed at

a sewage sludge incinerator were found to be as follows: Sb (12.7 percent), As (13.5 percent), Ba (20.6 percent), Cd (11.5 percent), Cr (11.2 percent), Cu (11.5 percent), Pb (11.5 percent), P (14.6 percent), Se (15.3 percent), Tl (12.3 percent), and Zn (11.8 percent). The precision for Ni was 7.7 percent for another test conducted at a source simulator. Be, Mn, and Ag were not detected in the tests. However, based on the analytical detection limits of the ICAP for these metals, their precisions could be similar to those for the other metals when detected at similar levels.

2.5 Interferences. Iron (Fe) can be a spectral interference during the analysis of As, Cr, and Cd by ICAP. Aluminum (Al) can be a spectral interference during the analysis of As and Pb by ICAP. Generally, these interferences can be reduced by diluting the analytical sample, but such dilution raises the in-stack detection limits. Background and overlap corrections may be used to adjust for spectral interferences. Refer to Method 6010 in EPA Publication SW-846 Third Edition (November 1986) including updates I, II, IIA and IIB, as incorporated by reference in

§60.17(i) the other analytical methods used for details on potential interferences to this method. For all GFAAS analyses, use matrix modifiers to limit interferences, and matrix match all standards.

3. Apparatus

3.1 Sampling. A schematic of the sampling train is shown in Figure 29-1. It has general similarities to the Method 5 train.

BILLING 6580-50-M

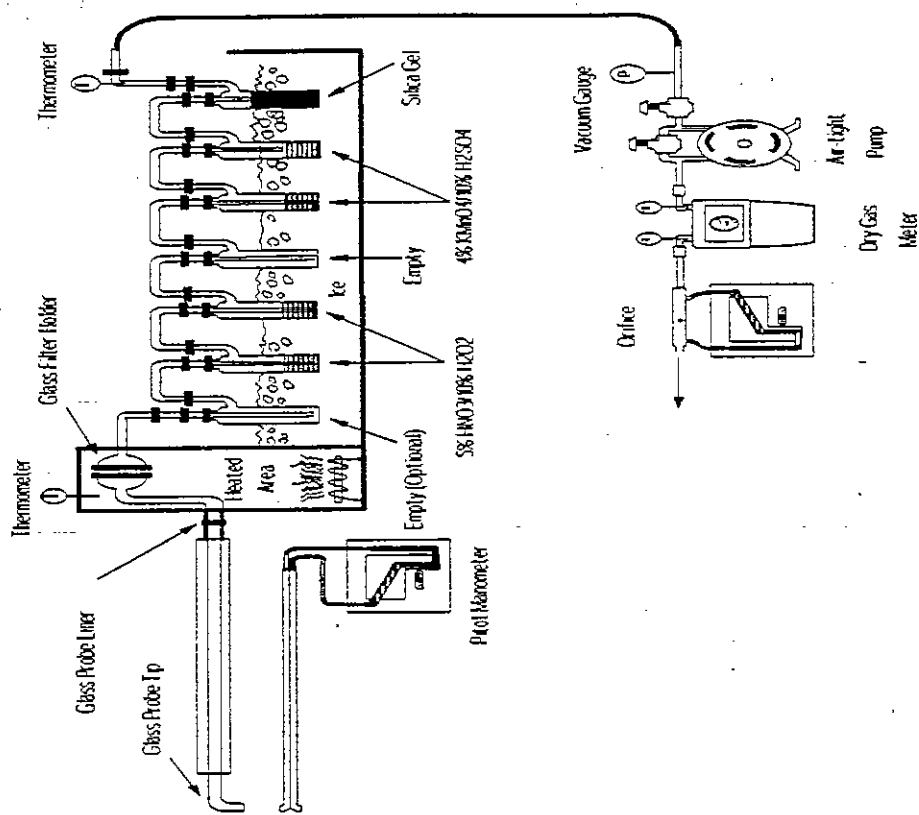


Figure 29-1. Sampling train.

SMILING 6550-55-C

3.1.1 Probe Nozzle (Probe Tip) and Borosilicate or Quartz Glass Probe Liner. Same as Method 5, Sections 2.1.1 and 2.1.2, except that glass nozzles are required unless alternate tips are constructed of materials that are free from contamination and will not interfere with the sample. If a probe tip other than glass is used, no correction to the sample test results to compensate for the nozzle's effect on the sample is allowed. Probe fittings of plastic such as Teflon, polypropylene, etc. are recommended instead of metal fittings to prevent contamination. If one chooses to do so, a single glass piece consisting of a combined probe tip and probe liner may be used.

3.1.2 Pitot Tube and Differential Pressure Gauge. Same as Method 2, Sections 2.1 and 2.2, respectively.

3.1.3 Filter Holder. Glass, same as Method 5, Section 2.1.5, except use a Teflon filter support or other non-metallic, non-contaminating support in place of the glass frit.

3.1.4 Filter Heating System. Same as Method 5, Section 2.1.6.

3.1.5 Condenser. Use the following system for condensing and collecting gaseous metals and determining the moisture content of the stack gas. The condensing system shall consist of four to seven impingers connected in series with leak-free ground glass fittings or other leak-free, non-contaminating fittings. Use the first impinger as a moisture trap. The second impinger (which is the first $\text{HNO}_3/\text{H}_2\text{O}_2$ impinger) shall be identical to the first impinger in Method 5. The third impinger (which is the second $\text{HNO}_3/\text{H}_2\text{O}_2$ impinger) shall be a Greenburg Smith impinger with the standard tip as described for the second impinger in Method 5, Section 2.1.7. The fourth (empty) impinger and the fifth and sixth (both acidified KMnO_4) impingers are the same as the first impinger in Method 5. Place a thermometer capable of measuring to within 1°C (2°F) at the outlet of the last impinger. If no Hg analysis is planned, then the fourth, fifth, and sixth impingers are not used.

3.1.6 Metering System, Barometer, and Gas Density Determination Equipment. Same as Method 5, Sections 2.1.8 through 2.1.10, respectively.

3.1.7 Teflon Tape. For capping openings and sealing connections, if necessary, on the sampling train.

3.2. Sample Recovery. Same as Method 5, Sections 2.2.1 through 2.2.8 (Probe-Liner and Probe-Nozzle Brushes or Swabs, Wash Bottles, Sample Storage Containers, Petri Dishes, Glass Graduated Cylinder, Plastic Storage Containers, Funnel and Rubber Policeman, and Glass Funnel), respectively, with the following exceptions and additions:

3.2.1 Non-metallic Probe-Liner and Probe-Nozzle Brushes or Swabs. Use non-metallic probe-liner and probe-nozzle brushes or swabs for quantitative recovery of materials collected in the front-half of the sampling train.

3.2.2 Sample Storage Containers. Use glass bottles (see the *Precaution*: in Section 4.3.2 of this Method) with Teflon-lined caps that are non-reactive to the oxidizing solutions, with capacities of 1000- and 500-ml, for storage of acidified KMnO_4 .

containing samples and blanks. Glass or polyethylene bottles may be used for other sample types.

3.2.3 Graduated Cylinder. Glass or equivalent.

3.2.4 Funnel. Glass or equivalent.

3.2.5 Labels. For identifying samples.

3.2.6 Polypropylene Tweezers and/or Plastic Gloves. For recovery of the filter from the sampling train filter holder.

3.3 Sample Preparation and Analysis.

3.3.1 Volumetric Flasks, 100-ml, 250-ml, and 100-ml. For preparation of standards and sample dilutions.

3.3.2 Graduated Cylinders. For preparation of reagents.

3.3.3 Parr® Bombs or Microwave Pressure Relief Vessels with Capping Station (CEM Corporation model or equivalent). For sample digestion.

3.3.4 Beakers and Watch Glasses, 250-ml beakers, with watch glass covers, for sample digestion.

3.3.5 Ring Stands and Clamps. For securing equipment such as filtration apparatus.

3.3.6 Filter Funnels. For holding filter paper.

3.3.7 Disposable Pasteur Pipets and Bulbs.

3.3.8 Volumetric Pipets.

3.3.9 Analytical Balance. Accurate to within .01 mg.

3.3.10 Microwave or Conventional Oven. For heating samples at fixed power levels or temperatures, respectively.

3.3.11 Hot Plates.

3.3.12 Atomic Absorption Spectrometer (AAS). Equipped with a background corrector.

3.3.12.1 Graphite Furnace Attachment. With Sb, As, Cd, Co, Pb, Se, and Tl hollow cathode lamps (HCLs) or electrodeless discharge lamps (EDLs). Same as Methods 7041 (Sb), 7050 (As), 7131 (Cd), 7201 (Co), 7421 (Pb), 7740 (Se), and 7841 (Tl) in EPA publication SW-846 Third Edition (November 1986) including updates I, II, IIA and IIB, as incorporated by reference in § 60.17(i).

3.3.12.2 Cold Vapor Mercury Attachment. With a mercury HCL or EDL, an air recirculation pump, a quartz cell, an aerator apparatus, and a heat lamp or desiccator tube. The heat lamp shall be capable of raising the temperature at the quartz cell by 10°C above ambient, so that no condensation forms on the wall of the quartz cell. Same as Method 6020 in EPA publication SW-846 Third Edition (November 1986) including updates I, II, IIA and IIB, as incorporated by reference in § 60.17(i). See Note No. 2: Section 5.4.3 for other acceptable approaches for analysis of Hg in which analytical detection limits of 0.002 ng/ml were obtained.

3.3.13 Inductively Coupled Argon Plasma Spectrometer. With either a direct or sequential reader and an alumina torch. Same as EPA Method 6010 in EPA publication SW-846 Third Edition (November 1986) including updates I, II, IIA and IIB, as incorporated by reference in § 60.17(i).

3.3.14 Inductively Coupled Plasma-Mass Spectrometer. Same as EPA Method 6020 in

EPA publication SW-846 Third Edition (November 1986) including updates I, II, IIA and IIB, as incorporated by reference in § 60.17(i).

4. Reagents

4.1 Unless otherwise indicated, it is intended that all reagents conform to the specifications established by the Committee on Analytical Reagents of the American Chemical Society, where such specifications are available. Otherwise, use the best available grade.

4.2 Sampling Reagents.

4.2.1 Sample Filters. Without organic binders. The filters shall contain less than $1.3 \mu\text{g/in.}^2$ of each of the metals to be measured. Analytical results provided by filter manufacturers stating metals content of the filters are acceptable. However, if no such results are available, analyze filter blanks for each target metal prior to emission testing. Quartz fiber filters meeting these requirements are recommended. However, if glass fiber filters become available which meet these requirements, they may be used. Filter efficiencies and unreactiveness to sulfur dioxide (SO_2) or sulfur trioxide (SO_3) shall be as described in Section 3.1.1 of Method 5.

4.2.2 Water. To conform to ASTM Specification D1193-77, Type II (incorporated by reference—See § 60.17). If necessary, analyze the water for all target metals prior to field use. All target metals should be less than 1 ng/ml.

4.2.3 Nitric Acid (HNO_3). Concentrated. Baker Instra-analyzed or equivalent.

4.2.4 Hydrochloric Acid (HCL). Concentrated. Baker Instra-analyzed or equivalent.

4.2.5 Hydrogen Peroxide (H_2O_2), 30 Percent (V/V).

4.2.6 Potassium Permanganate (KMnO_4).

4.2.7 Sulfuric Acid (H_2SO_4). Concentrated.

4.2.8 Silica Gel and Crushed Ice. Same as Method 5, Sections 3.1.2 and 3.1.4, respectively.

4.3 Pretest Preparation of Sampling Reagents.

4.3.1 $\text{HNO}_3/\text{H}_2\text{O}_2$ Absorbing Solution, 5 Percent $\text{HNO}_3/10$ Percent H_2O_2 . Add carefully with stirring 50 ml of concentrated HNO_3 to a 1000-ml volumetric flask containing approximately 500 ml of water, and then add carefully with stirring 333 ml of 30 percent H_2O_2 . Dilute to volume with water. Mix well. This reagent shall contain less than 2 ng/ml of each target metal.

4.3.2 Acidic KMnO_4 Absorbing Solution, 4 Percent KMnO_4 (W/V), 10 Percent H_2SO_4 (V/V). Prepare fresh daily. Mix carefully, with stirring, 100 ml of concentrated H_2SO_4 into approximately 800 ml of water, and add water with stirring to make a volume of 1 liter; this solution is 10 percent H_2SO_4 (V/V). Dissolve, with stirring, 40 g of KMnO_4 into 10 percent H_2SO_4 (V/V) and add 10 percent H_2SO_4 (V/V) with stirring to make a volume of 1 liter. Prepare and store in glass bottles to prevent degradation. This reagent shall contain less than 2 ng/ml of Hg. *Precaution:* To prevent autocatalytic decomposition of the permanganate solution, filter the solution through Whatman 541

filter paper. Also, due to the potential reaction of the potassium permanganate with the acid, there could be pressure buildup in the solution storage bottle. Therefore these bottles shall not be fully filled and shall be vented to relieve excess pressure and prevent explosion potentials. Venting is required, but not in a manner that will allow contamination of the solution. A No. 70-72 hole drilled in the container cap and Teflon liner has been used.

4.3.3 HNO_3 , 0.1 N. Add with stirring 6.3 ml of concentrated HNO_3 (70 percent) to a flask containing approximately 900 ml of water. Dilute to 1000 ml with water. Mix well. This reagent shall contain less than 2 ng/ml of each target metal.

4.3.4 HCl , 8 N. Carefully add with stirring 690 ml of concentrated HCl to a flask containing 250 ml of water. Dilute to 1000 ml with water. Mix well. This reagent shall contain less than 2 ng/ml of Hg.

4.4 Glassware Cleaning Reagents.

4.4.1 HNO_3 , Concentrated. Fisher ACS grade or equivalent.

4.4.2 Water. To conform to ASTM Specification D1193-77, Type II (incorporated by reference—See § 60.17).

4.4.3 HNO_3 , 10 Percent (V/V). Add with stirring 500 ml of concentrated HNO_3 to a flask containing approximately 4000 ml of water. Dilute to 5000 ml with water. Mix well. This reagent shall contain less than 2 ng/ml of each target metal.

4.5 Sample Digestion and Analysis Reagents.

The metals standards, except Hg, may also be made from solid chemicals as described in Citation 3 of the Bibliography. Refer to Citations 1, 2, or 5 of the Bibliography for additional information on Hg standards. The 1000 $\mu\text{g}/\text{ml}$ Hg stock solution standard may be made according to Section 6.2.5 of Method 101A.

4.5.1 HCl , Concentrated.

4.5.2 Hydrofluoric Acid (HF), Concentrated.

4.5.3 HNO_3 , Concentrated. Baker Instra-analyzed or equivalent.

4.5.4 HNO_3 , 50 Percent (V/V). Add with stirring 125 ml of concentrated HNO_3 to 100 ml of water. Dilute to 250 ml with water. Mix well. This reagent shall contain less than 2 ng/ml of each target metal.

4.5.5 HNO_3 , 5 Percent (V/V). Add with stirring 50 ml of concentrated HNO_3 to 800 ml of water. Dilute to 1000 ml with water. Mix well. This reagent shall contain less than 2 ng/ml of each target metal.

4.5.6 Water. To conform to ASTM Specification D1193-77, Type II (incorporated by reference—See § 60.17).

4.5.7 Hydroxylamine Hydrochloride and Sodium Chloride Solution. See Citation 2 of the Bibliography for preparation.

4.5.8 Stannous Chloride. See Citation 2 of the Bibliography for preparation.

4.5.9 KMnO_4 , 5 Percent (W/V). See Citation 2 of the Bibliography for preparation.

4.5.10 H_2SO_4 , Concentrated.

4.5.11 Potassium Persulfate, 5 Percent (W/V). See Citation 2 of the Bibliography for preparation.

4.5.12 Nickel Nitrate, $\text{Ni}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O}$.

4.5.13 Lanthanum Oxide, La_2O_3 .

4.5.14 Hg Standard (AAS Grade), 1000 $\mu\text{g}/\text{ml}$.

4.5.15 Pb Standard (AAS Grade), 1000 $\mu\text{g}/\text{ml}$.

4.5.16 As Standard (AAS Grade), 1000 $\mu\text{g}/\text{ml}$.

4.5.17 Cd Standard (AAS Grade), 1000 $\mu\text{g}/\text{ml}$.

4.5.18 Cr Standard (AAS Grade), 1000 $\mu\text{g}/\text{ml}$.

4.5.19 Sb Standard (AAS Grade), 1000 $\mu\text{g}/\text{ml}$.

4.5.20 Ba Standard (AAS Grade), 1000 $\mu\text{g}/\text{ml}$.

4.5.21 Be Standard (AAS Grade), 1000 $\mu\text{g}/\text{ml}$.

4.5.22 Co Standard (AAS Grade), 1000 $\mu\text{g}/\text{ml}$.

4.5.23 Cu Standard (AAS Grade), 1000 $\mu\text{g}/\text{ml}$.

4.5.24 Mn Standard (AAS Grade), 1000 $\mu\text{g}/\text{ml}$.

4.5.25 Ni Standard (AAS Grade), 1000 $\mu\text{g}/\text{ml}$.

4.5.26 P Standard (AAS Grade), 1000 $\mu\text{g}/\text{ml}$.

4.5.27 Se Standard (AAS Grade), 1000 $\mu\text{g}/\text{ml}$.

4.5.28 Ag Standard (AAS Grade), 1000 $\mu\text{g}/\text{ml}$.

4.5.29 Tl Standard (AAS Grade), 1000 $\mu\text{g}/\text{ml}$.

4.5.30 Zn Standard (AAS Grade), 1000 $\mu\text{g}/\text{ml}$.

4.5.31 Al Standard (AAS Grade), 1000 $\mu\text{g}/\text{ml}$.

4.5.32 Fe Standard (AAS Grade), 1000 $\mu\text{g}/\text{ml}$.

4.5.33 Hg Standards and Quality Control Samples. Prepare fresh weekly a 10 $\mu\text{g}/\text{ml}$ intermediate Hg standard by adding 5 ml of 1000 $\mu\text{g}/\text{ml}$ Hg stock solution prepared according to Method 101A to a 500-ml volumetric flask; dilute with stirring to 500 ml by first carefully adding 20 ml of 15 percent HNO_3 and then adding water to the 500-ml volume. Mix well. Prepare a 200 ng/ml working Hg standard solution fresh daily: add 5 ml of the 10 $\mu\text{g}/\text{ml}$ intermediate standard to a 250-ml volumetric flask, and dilute to 250 ml with 5 ml of 4 percent KMnO_4 , 5 ml of 15 percent HNO_3 , and then water. Mix well. Use at least five separate aliquots of the working Hg standard solution and a blank to prepare the standard curve. These aliquots and blank shall contain 0.0, 1.0, 2.0, 3.0, 4.0, and 5.0 ml of the working standard solution containing 0, 200, 400, 600, 800, and 1000 ng Hg, respectively. Prepare quality control samples by making a separate 10 $\mu\text{g}/\text{ml}$ standard and diluting until in the calibration range.

4.5.34 ICAP Standards and Quality Control Samples. Calibration standards for ICAP analysis can be combined into four different mixed standard solutions as follows:

MIXED STANDARD SOLUTIONS FOR ICAP ANALYSIS

Solution	Elements
I	As, Be, Cd, Mn, Pb, Se, Zn.
II	Ba, Co, Cu, Fe.
III	Al, Cr, Ni.

MIXED STANDARD SOLUTIONS FOR ICAP ANALYSIS—Continued

Solution	Elements
IV	Ag, P, Sb, Ti.

Prepare these standards by combining and diluting the appropriate volumes of the 1000 $\mu\text{g}/\text{ml}$ solutions with 5 percent HNO_3 . A minimum of one standard and a blank can be used to form each calibration curve. However, prepare a separate quality control sample spiked with known amounts of the target metals in quantities in the mid-range of the calibration curve. Suggested standard levels are 25 $\mu\text{g}/\text{ml}$ for Al, Cr and Pb, 15 $\mu\text{g}/\text{ml}$ for Fe, and 10 $\mu\text{g}/\text{ml}$ for the remaining elements. Prepare any standards containing less than 1 $\mu\text{g}/\text{ml}$ of metal on a daily basis. Standards containing greater than 1 $\mu\text{g}/\text{ml}$ of metal should be stable for a minimum of 1 to 2 weeks. For ICP-MS, follow Method 6020 in EPA Publication SW-846 Third Edition (November 1986) including updates I, II, IIA and IIB, as incorporated by reference in § 60.17(i).

4.5.35 GFAAS Standards. Sb, As, Cd, Co, Pb, Se, and Tl. Prepare a 10 $\mu\text{g}/\text{ml}$ standard by adding 1 ml of 1000 $\mu\text{g}/\text{ml}$ standard to a 100-ml volumetric flask. Dilute with stirring to 100 ml with 10 percent HNO_3 . For GFAAS, matrix match the standards. Prepare a 100 ng/ml standard by adding 1 ml of the 10 $\mu\text{g}/\text{ml}$ standard to a 100-ml volumetric flask, and dilute to 100 ml with the appropriate matrix solution. Prepare other standards by diluting the 100 ng/ml standards. Use at least five standards to make up the standard curve. Suggested levels are 0, 10, 50, 75, and 100 ng/ml. Prepare quality control samples by making a separate 10 $\mu\text{g}/\text{ml}$ standard and diluting until it is in the range of the samples. Prepare any standards containing less than 1 $\mu\text{g}/\text{ml}$ of metal on a daily basis. Standards containing greater than 1 $\mu\text{g}/\text{ml}$ of metal should be stable for a minimum of 1 to 2 weeks.

4.5.36 Matrix Modifiers.

4.5.36.1 Nickel Nitrate, 1 Percent (V/V). Dissolve 4.956 g of $\text{Ni}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O}$ or other nickel compound suitable for preparation of this matrix modifier in approximately 50 ml of water in a 100-ml volumetric flask. Dilute to 100 ml with water.

4.5.36.2 Nickel Nitrate, 0.1 Percent (V/V). Dilute 10 ml of 1 percent nickel nitrate solution to 100 ml with water. Inject an equal amount of sample and this modifier into the graphite furnace during GFAAS analysis for As.

4.5.36.3 Lanthanum. Carefully dissolve 0.5864 g of La_2O_3 in 10 ml of concentrated HNO_3 , and dilute the solution by adding it with stirring to approximately 50 ml of water. Dilute to 100 ml with water, and mix well. Inject an equal amount of sample and this modifier into the graphite furnace during GFAAS analysis for Pb.

4.5.37 Whatman 40 and 541 Filter Papers (or equivalent). For filtration of digested samples.

5. Procedure

5.1 Sampling. The complexity of this method is such that, to obtain reliable results,

both testers and analysts must be trained and experienced with the test procedures, including source sampling; reagent preparation and handling; sample handling; safety equipment and procedures; analytical calculations; reporting; and the specific procedural descriptions throughout this method.

5.1.1 Pretest Preparation. Follow the same general procedure given in Method 5, Section 4.1.1, except that, unless particulate emissions are to be determined, the filter need not be desiccated or weighed. First, rinse all sampling train glassware with hot tap water and then wash in hot soapy water. Next, rinse glassware three times with tap water, followed by three additional rinses with water. Then soak all glassware in a 10 percent (V/V) nitric acid solution for a minimum of 4 hours, rinse three times with water, rinse a final time with acetone, and allow to air dry. Cover all glassware openings where contamination can occur until the sampling train is assembled for sampling.

5.1.2 Preliminary Determinations. Same as Method 5, Section 4.1.2.

5.1.3 Preparation of Sampling Train.

5.1.3.1 Set up the sampling train as shown in Figure 29-1. Follow the same general procedures given in Method 5, Section 4.1.3, except place 100 ml of the $\text{HNO}_3/\text{H}_2\text{O}_2$ solution (Section 4.3.1. of this method) in each of the second and third impingers as shown in Figure 29-1. Place 100 ml of the acidic KMnO_4 absorbing solution (Section 4.3.2 of this method) in each of the fifth and sixth impingers as shown in Figure 29-1, and transfer approximately 200 to 300 g of pre-weighed silica gel from its container to the last impinger. Alternatively, the silica gel may be weighed directly in the impinger just prior to final train assembly.

5.1.3.2 Based on the specific source sampling conditions, the use of an empty

first impinger can be eliminated if the moisture to be collected in the impingers will be less than approximately 100 ml.

5.1.3.3 If Hg analysis will not be performed, the fourth, fifth, and sixth impingers as shown in Figure 29-1 are not required.

5.1.3.4 To insure leak-free sampling train connections and to prevent possible sample contamination problems, use Teflon tape or other non-contaminating material instead of silicone grease.

Precaution: Exercise extreme care to prevent contamination within the train. Prevent the acidic KMnO_4 from contacting any glassware that contains sample material to be analyzed for Mn. Prevent acidic H_2O_2 from mixing with the acidic KMnO_4 .

5.1.4 Leak-Check Procedures. Follow the leak-check procedures given in Method 5, Section 4.1.4.1 (Pretest Leak-Check), Section 4.1.4.2 (Leak-Checks During the Sample Run), and Section 4.1.4.3 (Post-Test Leak-Checks).

5.1.5 Sampling Train Operation. Follow the procedures given in Method 5, Section 4.1.5. When sampling for Hg, use a procedure analogous to that described in Section 7.1.1 of Method 101A, 40 CFR Part 61, Appendix B, if necessary to maintain the desired color in the last acidified permanganate impinger. For each run, record the data required on a data sheet such as the one shown in Figure 5-2 of Method 5.

5.1.6 Calculation of Percent Isokinetic. Same as Method 5, Section 4.1.6.

5.2 Sample Recovery.

5.2.1 Begin cleanup procedures as soon as the probe is removed from the stack at the end of a sampling period. The probe should be allowed to cool prior to sample recovery. When it can be safely handled, wipe off all external particulate matter near the tip of the probe nozzle and place a rinsed, non-contaminating cap over the probe nozzle to

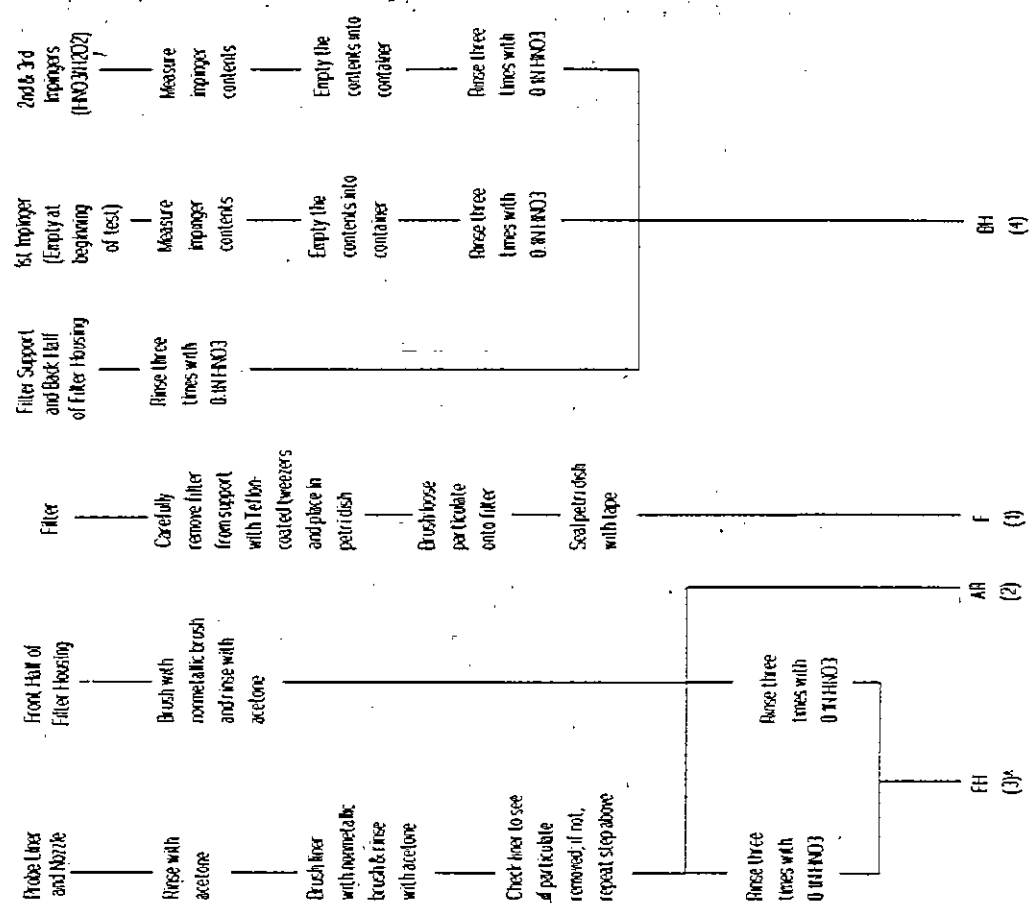
prevent losing or gaining particulate matter. Do not cap the probe tip tightly while the sampling train is cooling; a vacuum can form in the filter holder with the undesired result of drawing liquid from the impingers onto the filter.

5.2.2 Before moving the sampling train to the cleanup site, remove the probe from the sampling train and cap the open outlet. Be careful not to lose any condensate that might be present. Cap the filter inlet where the probe was fastened. Remove the umbilical cord from the last impinger and cap the impinger. Cap the filter holder outlet and impinger inlet. Use non-contaminating caps, whether ground-glass stoppers, plastic caps, serum caps, or Teflon tape to close these openings.

5.2.3 Alternatively, the following procedure may be used to disassemble the train before the probe and filter holder/oven are completely cooled: Initially disconnect the filter holder outlet/impinger inlet and loosely cap the open ends. Then disconnect the probe from the filter holder or cyclone inlet and loosely cap the open ends. Cap the probe tip and remove the umbilical cord as previously described.

5.2.4 Transfer the probe and filter-impinger assembly to a cleanup area that is clean and protected from the wind and other potential causes of contamination or loss of sample. Inspect the train before and during disassembly and note any abnormal conditions. Take special precautions to assure that all the items necessary for recovery do not contaminate the samples. The sample is recovered and treated as follows (see schematic in Figures 29-2a and 29-2b):

BILUNG CCDE 8580-60-M



* Number in parentheses indicates container number

Figure 29-2a. Sample recovery scheme.

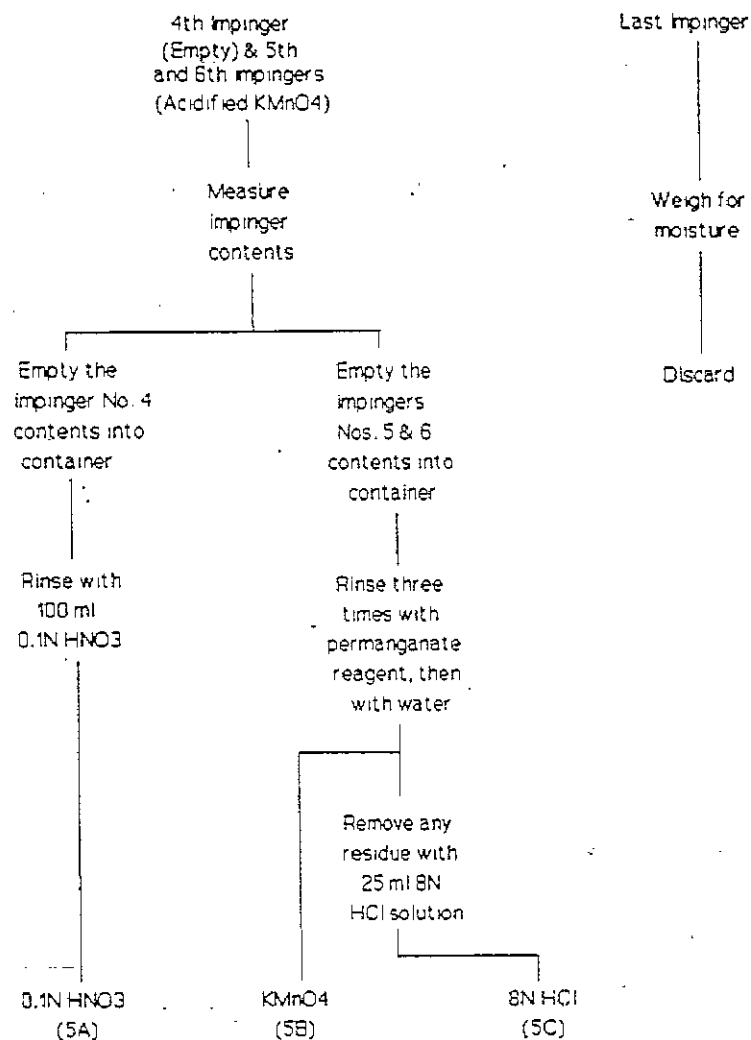


Figure 29-2b. Sample recovery scheme.

5.2.5 Container No. 1 (Sample Filter). Carefully remove the filter from the filter holder and place it in its labeled petri dish container. To handle the filter, use either acid-washed polypropylene or Teflon coated tweezers or clean, disposable surgical gloves rinsed with water and dried. If it is necessary to fold the filter, make certain the particulate cake is inside the fold. Carefully transfer the filter and any particulate matter or filter fibers that adhere to the filter holder gasket to the petri dish by using a dry (acid-cleaned) nylon bristle brush. Do not use any metal-containing materials when recovering this train. Seal the labeled petri dish.

5.2.6 Container No. 2. (Acetone Rinse). Perform this procedure only if a determination of particulate emissions is to be made. Quantitatively recover particulate matter and any condensate from the probe nozzle, probe fitting, probe liner, and front half of the filter holder by washing these components with a total of 100 ml of acetone, while simultaneously taking great care to see that no dust on the outside of the probe or other surfaces gets in the sample. The use of exactly 100 ml is necessary for the subsequent blank correction procedures. Distilled water may be used instead of acetone when approved by the Administrator and shall be used when specified by the Administrator; in these cases, save a water blank and follow the Administrator's directions on analysis.

5.2.6.1 Carefully remove the probe nozzle, and clean the inside surface by rinsing with acetone from a wash bottle while brushing with a non-metallic brush. Brush until the acetone rinse shows no visible particles, then make a final rinse of the inside surface with acetone.

5.2.6.2 Brush and rinse the sample exposed inside parts of the probe fitting with acetone in a similar way until no visible particles remain. Rinse the probe liner with acetone by tilting and rotating the probe while squirting acetone into its upper end so that all inside surfaces will be wetted with acetone. Allow the acetone to drain from the lower end into the sample container. A funnel may be used to aid in transferring liquid washings to the container. Follow the acetone rinse with a non-metallic probe brush. Hold the probe in an inclined position, squirt acetone into the upper end as the probe brush is being pushed with a twisting action three times through the probe. Hold a sample container underneath the lower end of the probe, and catch any acetone and particulate matter which is brushed through the probe until no visible particulate matter is carried out with the acetone or until none remains in the probe liner on visual inspection. Rinse the brush with acetone, and quantitatively collect these washings in the sample container. After the brushing, make a final acetone rinse of the probe as described above.

5.2.6.3 It is recommended that two people clean the probe to minimize sample losses. Between sampling runs, keep brushes clean and protected from contamination. Clean the inside of the front-half of the filter holder by rubbing the surfaces with a non-metallic brush and rinsing with acetone. Rinse each surface three times or more if

needed to remove visible particulate. Make a final rinse of the brush and filter holder. After all acetone washings and particulate matter have been collected in the sample container, tighten the lid so that acetone will not leak out when shipped to the laboratory. Mark the height of the fluid level to determine whether or not leakage occurred during transport. Clearly label the container to identify its contents.

5.2.7 Container No. 3 (Probe Rinse). Keep the probe assembly clean and free from contamination during the probe rinse. Rinse the probe nozzle and fitting, probe liner, and front-half of the filter holder thoroughly with a total of 100 ml of 0.1 N HNO₃, and place the wash into a sample storage container. (Note: The use of a total of exactly 100 ml is necessary for the subsequent blank correction procedures.)

Perform the rinses as applicable and generally as described in Method 12, Section 5.2.2. Record the volume of the rinses. Mark the height of the fluid level on the outside of the storage container and use this mark to determine if leakage occurs during transport. Seal the container, and clearly label the contents. Finally, rinse the nozzle, probe liner, and front-half of the filter holder with water followed by acetone, and discard these rinses.

5.2.8 Container No. 4 (Impingers 1 through 3, Moisture Knockout Impinger, when used, HNO₃/H₂O₂ Impingers Contents and Rinses). Due to the potentially large quantity of liquid involved, the tester may place the impinger solutions from impingers 1 through 3 in more than one container, if necessary. Measure the liquid in the first three impingers to within 0.5 ml using a graduated cylinder. Record the volume. This information is required to calculate the moisture content of the sampled flue gas. Clean each of the first three impingers, the filter support, the back half of the filter housing, and connecting glassware by thoroughly rinsing with 100 ml of 0.1 N HNO₃ using the procedure as applicable in Method 12, Section 5.2.4.

(Note: The use of exactly 100 ml of 0.1 N HNO₃ rinse is necessary for the subsequent blank correction procedures. Combine the rinses and impinger solutions, measure and record the final total volume. Mark the height of the fluid level, seal the container, and clearly label the contents.)

5.2.9 Container Nos. 5A (0.1 N HNO₃), 5B (KMnO₄/H₂SO₄ absorbing solution), and 5C (8 N HCl rinse and dilution).

5.2.9.1 When sampling for Hg, pour all the liquid from the impinger (normally impinger No. 4) that immediately preceded the two permanganate impingers into a graduated cylinder and measure the volume to within 0.5 ml. This information is required to calculate the moisture content of the sampled flue gas. Place the liquid in Container No. 5A. Rinse the impinger with exactly 100 ml of 0.1 N HNO₃ and place this rinse in Container No. 5A.

5.2.9.2 Pour all the liquid from the two permanganate impingers into a graduated cylinder and measure the volume to within 0.5 ml. This information is required to calculate the moisture content of the sampled

flue gas. Place this acidic KMnO₄ solution into Container No. 5B. Using a total of exactly 100 ml of fresh acidified KMnO₄ solution for all rinses (approximately 33 ml per rinse), rinse the two permanganate impingers and connecting glassware a minimum of three times. Pour the rinses into Container No. 5B, carefully assuring transfer of all loose precipitated materials from the two impingers. Similarly, using 100 ml total of water, rinse the permanganate impingers and connecting glass a minimum of three times, and pour the rinses into Container 5B, carefully assuring transfer of any loose precipitated material. Mark the height of the fluid level, and clearly label the contents. Read the Precaution in Section 4.3.2. NOTE: Due to the potential reaction of KMnO₄ with acid, pressure buildup can occur in the sample storage bottles. Do not fill these bottles completely and take precautions to relieve excess pressure. A No. 70-72 hole drilled in the container cap and Teflon liner has been used successfully.

5.2.9.3 If no visible deposits remain after the water rinse, no further rinse is necessary. However, if deposits remain on the impinger surfaces, wash them with 25 ml of 8 N HCl, and place the wash in a separate sample container labeled No. 5C containing 200 ml of water. First, place 200 ml of water in the container. Then wash the impinger walls and stem with the HCl by turning the impinger on its side and rotating it so that the HCl contacts all inside surfaces. Use a total of only 25 ml of 8 N HCl for rinsing both permanganate impingers combined. Rinse the first impinger, then pour the actual rinse used for the first impinger into the second impinger for its rinse. Finally, pour the 25 ml of 8 N HCl rinse carefully into the container. Mark the height of the fluid level on the outside of the container to determine if leakage occurs during transport.

5.2.10 Container No. 6 (Silica Gel). Note the color of the indicating silica gel to determine whether it has been completely spent and make a notation of its condition. Transfer the silica gel from its impinger to its original container and seal it. The tester may use a funnel to pour the silica gel and a rubber policeman to remove the silica gel from the impinger. The small amount of particles that might adhere to the impinger wall need not be removed. Do not use water or other liquids to transfer the silica gel since weight gained in the silica gel impinger is used for moisture calculations. Alternatively, if a balance is available in the field, record the weight of the spent silica gel (or silica gel, plus impinger) to the nearest 0.5 g.

5.2.11 Container No. 7 (Acetone Blank). If particulate emissions are to be determined, at least once during each field test, place a 100-ml portion of the acetone used in the sample recovery process into a container labeled No. 7. Seal the container.

5.2.12 Container No. 8A (0.1 N HNO₃ Blank). At least once during each field test, place 300 ml of the 0.1 N HNO₃ solution used in the sample recovery process into a container labeled No. 8A. Seal the container.

5.2.13 Container No. 8B (Water Blank). At least once during each field test, place 100 ml of the water used in the sample recovery process into a container labeled No. 8B. Seal the container.

5.2.14 Container No. 9 (5 Percent HNO_3 /10 Percent H_2O_2 Blank). At least once during each field test, place 200 ml of the 5 Percent HNO_3 /10 Percent H_2O_2 solution used as the nitric acid impinger reagent into a container labeled No. 9. Seal the container.

5.2.15 Container No. 10 (Acidified KMnO_4 Blank). At least once during each field test, place 100 ml of the acidified KMnO_4 solution used as the impinger solution and in the sample recovery process into a container labeled No. 10. Prepare the container as described in Section 5.2.9.2. Read the *Precaution* in Section 4.3.2, and read the *Note* in Section 5.2.9.2.

5.2.16 Container No. 11 (8 N HCl Blank). At least once during each field test, place 200 ml of water into a sample container labeled No. 11. Then carefully add with stirring 25 ml of 8 N HCl. Mix well and seal the container.

5.2.17 Container No. 12 (Sample Filter Blank). Once during each field test, place into a petri dish labeled No. 12 three unused blank filters from the same lot as the sampling filters. Seal the petri dish.

5.3 *Sample Preparation*. Note the level of the liquid in each of the containers and determine if any sample was lost during shipment. If a noticeable amount of leakage has occurred, either void the sample or use methods, subject to the approval of the Administrator, to correct the final results. A

diagram illustrating sample preparation and analysis procedures for each of the sample train components is shown in Figure 29-3.

5.3.1 *Container No. 1 (Sample Filter)*.

5.3.1.1 If particulate emissions are being determined, first desiccate the filter and filter catch without added heat (do not heat the filters to speed the drying) and weigh to a constant weight as described in Section 4.3 of Method 5.

5.3.1.2 Following this procedure, or initially, if particulate emissions are not being determined in addition to metals analysis, divide the filter with its filter catch into portions containing approximately 0.5 g each. Place the pieces in the analyst's choice of either individual microwave pressure relief vessels or Parr® Bombs. Add 6 ml of concentrated HNO_3 and 4 ml of concentrated HF to each vessel. For microwave heating, microwave the samples for approximately 12 to 15 minutes total heating time as follows: heat for 2 to 3 minutes, then turn off the microwave for 2 to 3 minutes, then heat for 2 to 3 minutes, etc., continue this alternation until the 12 to 15 minutes total heating time are completed (this procedure should comprise approximately 24 to 30 minutes at 600 watts). Microwave heating times are approximate and are dependent upon the number of samples being digested simultaneously. Sufficient heating is evidenced by sorbent reflux within the

vessel. For conventional heating, heat the Parr® Bombs at 140 °C (285 °F) for 6 hours. Then cool the samples to room temperature, and combine with the acid digested probe rinse as required in Section 5.3.3.

5.3.1.3 If the sampling train includes an optional glass cyclone in front of the filter, prepare and digest the cyclone catch by the procedures described in section 5.3.1.2 and then combine the digestate with the digested filter sample.

5.3.2 Container No. 2 (Acetone Rinse). Note the level of liquid in the container and confirm on the analysis sheet whether or not leakage occurred during transport. If a noticeable amount of leakage has occurred, either void the sample or use methods, subject to the approval of the Administrator, to correct the final results. Measure the liquid in this container either volumetrically within 1 ml or gravimetrically within 0.5 g. Transfer the contents to an acid-cleaned, tared 250-ml beaker and evaporate to dryness at ambient temperature and pressure. If particulate emissions are being determined, desiccate for 24 hours without added heat, weigh to a constant weight according to the procedures described in Section 4.3 of Method 5, and report the results to the nearest 0.1 mg. Redissolve the residue with 10 ml of concentrated HNO_3 .

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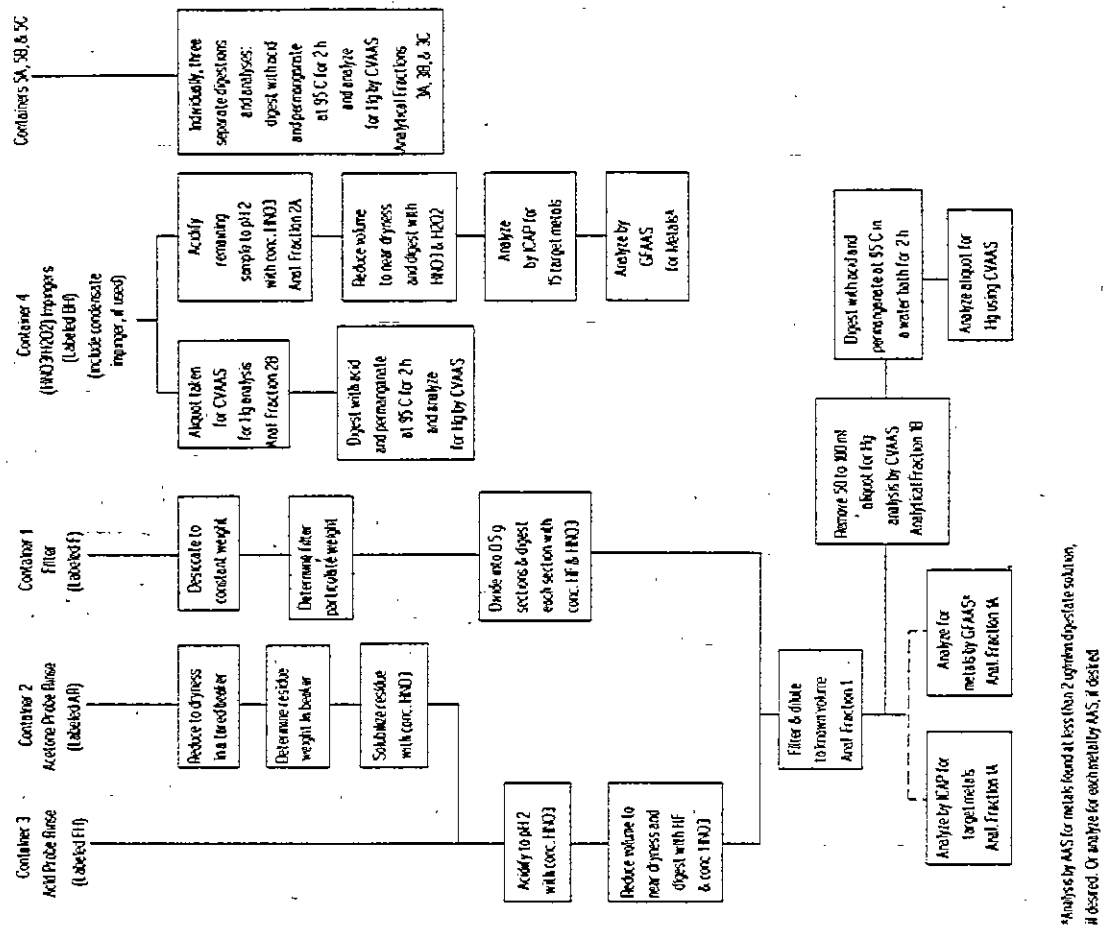


Figure 29-3. Sample preparation and analysis scheme.

Quantitatively combine the resultant sample, including all liquid and any particulate matter, with Container No. 3 before beginning Section 5.3.3.

5.3.3 Container No. 3 (Probe Rinse). Verify that the pH of this sample is 2 or lower. If it is not, acidify the sample by careful addition with stirring of concentrated HNO_3 to pH 2. Use water to rinse the sample into a beaker, and cover the beaker with a ribbed watch glass. Reduce the sample volume to approximately 20 ml by heating on a hot plate at a temperature just below boiling. Digest the sample in microwave vessels or Parr® Bombs by quantitatively transferring the sample to the vessel or bomb, carefully adding the 6 ml of concentrated HNO_3 , 4 ml of concentrated HF, and then continuing to follow the procedures described in Section 5.3.1.2. Then combine the resultant sample directly with the acid digested portions of the filter prepared previously in Section 5.3.1.2. The resultant combined sample is referred to as "Sample Fraction 1". Filter the combined sample using Whatman 541 filter paper. Dilute to 300 ml (or the appropriate volume for the expected metals concentration) with water. This diluted sample is "Analytical Fraction 1". Measure and record the volume of Analytical Fraction 1 to within 0.1 ml. Quantitatively remove a 50-ml aliquot and label as "Analytical Fraction 1B". Label the remaining 250-ml portion as "Analytical Fraction 1A". Analytical Fraction 1A is used for ICAP or AAS analysis for all desired metals except Hg. Analytical Fraction 1B is used for the determination of front-half Hg.

5.3.4 Container No. 4 (Impingers 1-3). Measure and record the total volume of this sample to within 0.5 ml and label it "Sample Fraction 2". Remove a 75- to 100-ml aliquot for Hg analysis and label the aliquot "Analytical Fraction 2B". Label the remaining portion of Container No. 4 as "Sample Fraction 2A". Sample Fraction 2A defines the volume of Analytical Fraction 2A prior to digestion. All of Sample Fraction 2A is digested to produce "Analytical Fraction 2A". Analytical Fraction 2A defines the volume of Sample Fraction 2A after its digestion and the volume of Analytical Fraction 2A is normally 150 ml. Analytical Fraction 2A is analyzed for all metals except Hg. Verify that the pH of Sample Fraction 2A is 2 or lower. If necessary, use concentrated HNO_3 by careful addition and stirring to lower Sample Fraction 2A to pH 2. Use water to rinse Sample Fraction 2A into a beaker and then cover the beaker with a ribbed watch glass. Reduce Sample Fraction 2A to approximately 20 ml by heating on a hot plate at a temperature just below boiling. Then follow either of the digestion procedures described in Sections 5.3.4.1 or 5.3.4.2.

5.3.4.1 Conventional Digestion Procedure. Add 30 ml of 50 percent HNO_3 , and heat for 30 minutes on a hot plate to just below boiling. Add 10 ml of 3 percent H_2O_2 and heat for 10 more minutes. Add 50 ml of hot water, and heat the sample for an additional 20 minutes. Cool, filter the sample, and dilute to 150 ml (or the appropriate volume for the expected metals concentrations) with water. This dilution

produces Analytical Fraction 2A. Measure and record the volume to within 0.1 ml.

5.3.4.2 Microwave Digestion Procedure. Add 10 ml of 50 percent HNO_3 and heat for 6 minutes total heating time in alternations of 1 to 2 minutes at 600 Watts followed by 1 to 2 minutes with no power, etc., similar to the procedure described in Section 5.3.1. Allow the sample to cool. Add 10 ml of 3 percent H_2O_2 and heat for 2 more minutes. Add 50 ml of hot water, and heat for an additional 5 minutes. Cool, filter the sample, and dilute to 150 ml (or the appropriate volume for the expected metals concentrations) with water. This dilution produces Analytical Fraction 2A. Measure and record the volume to within 0.1 ml.

(Note: All microwave heating times given are approximate and are dependent upon the number of samples being digested at a time. Heating times as given above have been found acceptable for simultaneous digestion of up to 12 individual samples. Sufficient heating is evidenced by solvent reflux within the vessel.)

5.3.5 Container No. 5A (Impinger 4). Container Nos. 5B and 5C (Impingers 5 and 6). Keep the samples in Containers Nos. 5A, 5B, and 5C separate from each other. Measure and record the volume of 5A to within 0.5 ml. Label the contents of Container No. 5A to be Analytical Fraction 3A. To remove any brown MnO_2 precipitate from the contents of Container No. 5B, filter its contents through Whatman 40 filter paper into a 500 ml volumetric flask and dilute to volume with water. Save the filter for digestion of the brown MnO_2 precipitate. Label the 500 ml filtrate from Container No. 5B to be Analytical Fraction 3B. Analyze Analytical Fraction 3B for Hg within 48 hours of the filtration step. Place the saved filter, which was used to remove the brown MnO_2 precipitate, into an appropriately sized vented container, which will allow release of any gases including chlorine formed when the filter is digested. In a laboratory hood which will remove any gas produced by the digestion of the MnO_2 , add 25 ml of 8 N HCl to the filter and allow to digest for a minimum of 24 hours at room temperature. Filter the contents of Container No. 5C through a Whatman 40 filter into a 500-ml volumetric flask. Then filter the result of the digestion of the brown MnO_2 from Container No. 5B through a Whatman 40 filter into the same 500-ml volumetric flask, and dilute and mix well to volume with water. Discard the Whatman 40 filter. Mark this combined 500-ml dilute HCl solution as Analytical Fraction 3C.

5.3.6 Container No. 6 (Silica Gel). Weigh the spent silica gel (or silica gel plus impinger) to the nearest 0.5 g using a balance.

5.4 Sample Analysis. For each sampling train sample run, seven individual analytical samples are generated; two for all desired metals except Hg, and five for Hg. A schematic identifying each sample container and the prescribed analytical preparation and analysis scheme is shown in Figure 29-3. The first two analytical samples, labeled Analytical Fractions 1A and 1B, consist of the digested samples from the front-half of the train. Analytical Fraction 1A is for ICAP, ICP-MS or AAS analysis as described in

Sections 5.4.1 and 5.4.2, respectively. Analytical Fraction 1B is for front-half Hg analysis as described in Section 5.4.3. The contents of the back-half of the train are used to prepare the third through seventh analytical samples. The third and fourth analytical samples, labeled Analytical Fractions 2A and 2B, contain the samples from the moisture removal impinger No. 1, if used, and $\text{HNO}_3/\text{H}_2\text{O}_2$ impingers Nos. 2 and 3. Analytical Fraction 2A is for ICAP, ICP-MS or AAS analysis for target metals, except Hg. Analytical Fraction 2B is for analysis for Hg. The fifth through seventh analytical samples, labeled Analytical Fractions 3A, 3B, and 3C, consist of the impinger contents and rinses from the empty impinger No. 4 and the $\text{H}_2\text{SO}_4/\text{KMnO}_4$ Impingers Nos. 5 and 6. These analytical samples are for analysis for Hg as described in Section 5.4.3. The total back-half Hg catch is determined from the sum of Analytical Fractions 2B, 3A, 3B, and 3C. Analytical Fractions 1A and 2A can be combined proportionally prior to analysis.

5.4.1 ICAP and ICP-MS Analysis. Analyze Analytical Fractions 1A and 2A by ICAP using Method 6010 or Method 200.7 (40 CFR part 136, appendix C). Calibrate the ICAP, and set up an analysis program as described in Method 6010 or Method 200.7. Follow the quality control procedures described in Section 7.3.1. Recommended wavelengths for analysis are as follows:

Element	Wave-length (nm)
Aluminum	308.215
Antimony	206.833
Arsenic	193.696
Barium	455.403
Beryllium	313.042
Cadmium	226.502
Chromium	267.716
Cobalt	228.616
Copper	324.754
Iron	259.940
Lead	220.353
Manganese	257.610
Nickel	231.604
Phosphorous	214.914
Selenium	196.026
Silver	328.068
Thallium	190.864
Zinc	213.856

These wavelengths represent the best combination of specificity and potential detection limit. Other wavelengths may be substituted if they can provide the needed specificity and detection limit, and are treated with the same corrective techniques for spectral interference. Initially, analyze all samples for the target metals (except Hg) plus Fe and Al. If Fe and Al are present, the sample might have to be diluted so that each of these elements is at a concentration of less than 50 ppm so as to reduce their spectral interferences on As, Cd, Cr, and Pb. Perform ICP-MS analysis by following Method 6020 in EPA Publication SW-846 Third Edition (November 1986) including updates I, II, IIIA, and IIB, as incorporated by reference in § 60.17(i).

(Note: When analyzing samples in a HF matrix, an alumina torch should be used;

since all front-half samples will contain HF, use an alumina torch.)

5.4.2. AAS by Direct Aspiration and/or GFAAS. If analysis of metals in Analytical

Fractions 1A and 2A by using GFAAS or direct aspiration AAS is needed, use Table 29-2 to determine which techniques and procedures to apply for each target metal. Use Table 29-2, if necessary, to determine

techniques for minimization of interferences. Calibrate the instrument according to Section 6.3 and follow the quality control procedures specified in Section 7.3.2.

TABLE 29-2.—APPLICABLE TECHNIQUES, METHODS AND MINIMIZATION OF INTERFERENCE FOR AAS ANALYSIS

Metal	Technique	SW-846 ¹ method No.	Wavelength (nm)	Interferences	
				Cause	Minimization
Fe	Aspiration	7380	248.3	Contamination	Great care taken to avoid contamination.
Pb	Aspiration	7420	283.3	217.0 nm alternate	Background correction required.
Pb	Furnace	7421	283.3	Poor recoveries	Matrix modifier, add 10 ul of phosphorus acid to 1 ml of prepared sample in sampler cup.
Mn	Aspiration	7460	279.5	403.1 nm alternate	Background correction required.
Ni	Aspiration	7520	232.0	352.4 nm alternate Fe, Co, and Cr.	Background correction required. Matrix matching or nitrous-oxide/acetylene flame.
				Nonlinear response	sample dilution or use 352.3 nm line.
Se	Furnace	7740	196.0	Volatility	Spike samples and reference materials and add nickel nitrate to minimize volatilization.
				Adsorption & scatter	Background correction is required and Zeeman background correction can be useful.
Ag	Aspiration	7760	328.1	Adsorption & Scatter AgCl insoluble.	Background correction is required. Avoid Hydrochloric acid unless silver is in solution as a chloride complex Sample and standards monitored for aspiration rate.
Ti	Aspiration	7840	276.8		Background correction is required. Hydrochloric acid should not be used.
Ti	Furnace	7841	276.8	Hydrochloric acid or chloride	Background correction is required. Verify that losses are not occurring for volatilization by spiked samples or standard addition; Palladium is a suitable matrix modifier.
Zn	Aspiration	7950	213.9	High Si, Cu, & P Contamination	Strontium removes Cu and phosphate. Great care taken to avoid contamination.
Sb	Aspiration	7040	217.6	1000 mg/ml Pb Ni, Cu, or acid ...	Use secondary wavelengths of 231.1nm; match sample & standards acid concentration or use nitrous oxide/acetylene flame.
Sb	Furnace	7041	217.6	High Pb	Secondary Wavelength or Zeeman correction.
As	Furnace	7060	193.7	Arsenic volatilization	Spiked samples and add nickel nitrate solution to digestates prior to analysis.
				Aluminum	Use Zeeman background correction.
Ba	Aspiration 7080	7080	553.6	Calcium	High hollow cathode current and narrow band set.
				Barium ionization	2 ml of KCl per 100 ml of sample.
Be	Aspiration	7090	234.9	500 ppm Al High Mg and Si	Add 0.1% fluoride.
					Use method of standard additions.
Be	Furnace	7091	234.9	Be in optical path	Optimize parameters to minimize effects.
Cd	Aspiration	7130	228.8	Absorption and light scattering ...	Background correction is required.

TABLE 29-2.—APPLICABLE TECHNIQUES, METHODS AND MINIMIZATION OF INTERFERENCE FOR AAS ANALYSIS—Continued

Metal	Technique	SW-846 ¹ method No.	Wavelength (nm)	Interferences	
				Cause	Minimization
Cd	Furnace	7131	228.8	As above	As above.
				Excess Chloride	Ammonium phosphate used as a matrix modifier.
				Pipet tips	Use cadmium-free tips.
Cr	Aspiration	7190	357.9	Akali metal	KCl ionization suppressant in samples and standards—Consult mfgs literature.
Co	Furnace	7201	240.7	Excess chloride	Use Method of Standard Additions.
Cr	Furnace	7191	357.9	200 mg/L Ca and P	All calcium nitrate for a known constant effect and to eliminate effect of phosphate.
Cu	Aspiration	7210	324.7	Absorption & scatter	Consult manufacturer's manual.

¹ Refer to EPA publication SW-846 Third Edition (November 1986) including updates I, II, IIA, and IIB, as incorporated by reference in § 60.17(i).

5.4.3 CVAAS Hg analysis. Analyze Analytical Fractions 1B, 2B, 3A, 3B, and 3C separately for Hg using CVAAS following the method outlined in Method 7470 in EPA Publication SW-846 Third Edition (November 1986) including updates I, II, IIA and IIB, as incorporated by reference in § 60.17(i) or in *Standard Methods for the Examination of Water and Wastewater*, 16th Edition, (1985), Method 303F, as incorporated by reference in § 60.17, or, optionally using NOTE No. 2 in this section. Set up the calibration curve (zero to 1000 ng) as described in Method 7470 or similar to Method 303F using 300-ml BOD bottles instead of Erlenmeyers. Perform the following for each Hg analysis. From each original sample, select and record an aliquot in the size range from 1 ml to 10 ml. If no prior knowledge of the expected amount of Hg in the sample exists, a 5 ml aliquot is suggested for the first dilution to 100 ml (see NOTE No. 1 in this Section). The total amount of Hg in the aliquot shall be less than 1 µg and within the range (zero to 1000 ng) of the calibration curve. Place the sample aliquot into a separate 300-ml BOD bottle, and add enough water to make a total volume of 100 ml. Next add to it sequentially the sample digestion solutions and perform the sample preparation described in the procedures of Method 7470 or Method 303F. (See NOTE No. 2 in this Section). If the maximum readings are off-scale (because Hg in the aliquot exceeded the calibration range; including the situation where only a 1-ml aliquot of the original sample was digested), then dilute the original sample (or a portion of it) with 0.15 percent HNO₃ (1.5 ml concentrated HNO₃ per liter aqueous solution) so that when a 1- to 10-ml aliquot of the "0.15 HNO₃ percent dilution of the original sample" is digested and analyzed by the procedures described above, it will yield an analysis within the range of the calibration curve.

Note No. 1 to Section 5.4.3. When Hg levels in the sample fractions are below the in-stack detection limit given in Table 29-1, select a 10 ml aliquot for digestion and analysis as described.

Note No. 2 to Section 5.4.3. Optionally, Hg can be analyzed by using the CVAAS analytical procedures given by some instrument manufacturer's directions. These include calibration and quality control procedures for the Leeman Model PS200, the Perkin Elmer FLAS systems, and similar models, if available, of other instrument manufacturers. For digestion and analyses by these instruments, perform the following two steps:

(1) Digest the sample aliquot through the addition of the aqueous hydroxylamine hydrochloride/sodium chloride solution the same as described in this Section 5.4.3.: (*The Leeman, Perkin Elmer, and similar instruments described in this note add automatically the necessary stannous chloride solution during the automated analysis of Hg.*) and

(2) Upon completion of the digestion described in paragraph (1), of this note, analyze the sample according to the instrument manufacturer's directions. This approach allows multiple (including duplicate) automated analyses of a digested sample aliquot.

6. Calibration

Maintain a laboratory log of all calibrations.

6.1 Sampling Train Calibration. Calibrate the sampling train components according to the indicated sections of Method 5: Probe Nozzle (Section 5.1); Pitot Tube (Section 5.2); Metering System (Section 5.3); Probe Heater (Section 5.4); Temperature Gauges (Section 5.5); Leake-Check of the Metering System (Section 5.6); and Barometer (Section 5.7).

6.2 Inductively Coupled Argon Plasma Spectrometer Calibration. Prepare standards as outlined in Section 4.5. Profile and calibrate the instrument according to the manufacturer's recommended procedures using those standards. Check the calibration once per hour. If the instrument does not reproduce the standard concentrations within 10 percent, perform the complete calibration procedures. Perform ICP-MS analysis by following Method 6020 in EPA Publication SW-846 Third Edition (November 1986) including updates I, II, IIA

and IIB, as incorporated by reference in § 60.17(i).

6.3 Atomic Absorption Spectrometer—Direct Aspiration AAS, GFAAS, and CVAAS analyses. Prepare the standards as outlined in Section 4.5 and use them to calibrate the spectrometer. Calibration procedures are also outlined in the EPA methods referred to in Table 29-2 and in Method 7470 in EPA Publication SW-846 Third Edition (November 1986) including updates I, II, IIA and IIB, as incorporated by reference in § 60.17(i) or in *Standard Methods for the Examination of Water and Wastewater*, 16th Edition, (1985), Method 303F (for Hg) as incorporated by reference in § 60.17. Run each standard curve in duplicate and use the mean values to calculate the calibration line. Recalibrate the instrument approximately once every 10 to 12 samples.

7. Quality Control

7.1 Field Reagent Blanks, if analyzed. Perform the digestion and analysis of the blanks in Container Nos. 7 through 12 that were produced in Sections 5.2.11 through 5.2.17, respectively. For Hg field reagent blanks, use a 10 ml aliquot for digestion and analysis.

7.1.1 Digest and analyze one of the filters from Container No. 12 per Section 5.3.1, 100 ml from Container No. 7 per Section 5.3.2, and 100 ml from Container No. 8A per Section 5.3.3. This step produces blanks for Analytical Fractions 1A and 1B.

7.1.2 Combine 100 ml of Container No. 8A with 200 ml from Container No. 9, and digest and analyze the resultant volume per Section 5.3.4. This step produces blanks for Analytical Fractions 2A and 2B.

7.1.3 Digest and analyze a 100-ml portion of Container No. 8A to produce a blank for Analytical Fraction 3A.

7.1.4 Combine 100 ml from Container No. 10 with 33 ml from Container No. 8B to produce a blank for Analytical Fraction 3B. Filter the resultant 133 ml as described for Container No. 5B in Section 5.3.5, except do not dilute the 133ml. Analyze this blank for Hg within 48 hrs. of the filtration step, and use 400 ml as the blank volume when calculating the blank mass value. Use the

impingers to within 1 ml. Record the volume of liquid present (e.g., see Figure 5-3 of Method 5 in 40 CFR Part 60). This information is required to calculate the moisture content of the effluent gas. (Use only graduated cylinder and glass storage bottles that have been precleaned as in Section 7.1.2.) Place the contents of the first three impingers into a 1000-ml glass sample bottle labeled Container No. 1. See the *Precaution* in Section 6.1.6.

Note No. 1 to Section 7.2.1.1: Due to the potential reaction of KMnO_4 with acid, there could be pressure buildup in the sample storage bottles. These bottles shall not be filled completely and shall be vented to relieve excess pressure. A No. 70-72 hole drilled in the container cap and Teflon liner has been used successfully.

Note No. 2 to Section 7.2.1.1: If a filter is used in the sampling train, remove the filter from its holder as outlined under "Container No. 3" below.)

7.2.1.2 Taking care that dust on the outside of the probe or other exterior surfaces does not get into the sample, quantitatively recover the Hg (and any condensate) from the probe nozzle, probe fitting, probe liner, front half of the filter holder (if applicable), and impingers as follows: Rinse these components with a total of 250 to 400 ml of fresh acidified 4 percent KMnO_4 solution carefully assuring removal of all loose particulate matter from the impingers; add all washings to Container No. 1. See the *Precaution* in Section 6.1.6 and see the *Note No. 1* in Section 7.2.1.1. To remove any residual brown deposits on the glassware following the permanganate rinse, rinse with approximately 100 ml of water carefully assuring removal of all loose particulate matter from the impingers, and add this rinse to Container No. 1. If no visible deposits remain after this water rinse, do not rinse with 8 N HCl. However, if deposits do remain on the glassware after the water rinse, wash the impinger walls and stems with a total of only 25 ml of 8 N HCl as follows; turn and shake the impingers so that the 8 N HCl contacts all inside surfaces (wash the first impinger, then pour the wash from the first impinger into the second impinger, and finally pour the wash from the second into the third). **DO NOT PLACE THE HCl WASH INTO THE ACIDIFIED PERMANGANATE SOLUTION.** Place the HCl wash into a separate container labeled Container No. 1A as follows: place 150 ml of water in an empty sample container labeled Container No. 1A. Pour the HCl wash carefully, with stirring, into Container No. 1A. Rinse the impinger walls and stem with a total of 50 ml of water, and place this rinse into Container No. 1A.

7.2.1.3 After all washings have been collected in the sample containers, prepare as

described above to prevent leakage during shipment to the laboratory. Mark the height of the fluid level to determine whether leakage occurs during transport. Label the containers to identify their contents clearly.

7.2.3 Container No. 3 (Filter). If a filter was used, carefully remove it from the filter holder, place it into a 100 ml glass sample container, and add 20 to 40 ml of acidified KMnO_4 . If it is necessary to fold the filter, be sure that the particulate cake is inside the fold. Carefully transfer to the 100 ml sample bottle any particulate matter and filter fibers that might adhere to the filter holder gasket by using a dry Nylon bristle brush and a sharp edged blade. See the *Precaution* in Section 6.1.6 and see the *Note No. 1* in Section 7.2.1.1. Label the container to clearly identify its contents. Mark the height of the fluid level to determine whether leakage occurs during transport.

7.2.5 Container No. 5 (Absorbing Solution Blank). For a blank, place 500 ml of acidified absorbing solution in a 1000 ml sample bottle. See the *Precaution* in Section 6.1.6 and see the *Note No. 1* in Section 7.2.1.1.

7.2.6 Container No. 6 (HCl rinse blank). For a blank, place 200 ml of water in a 1000-ml sample bottle, and add 25 ml of 8 N HCl carefully with stirring. Seal the container. Only one blank sample per 3 runs is required.

7.3.1 Containers No. 3 and No. 4 (Filter and Filter Blank). If a filter is used, place the contents, including the filter, of Containers No. 3 and 4 in separate 250-ml beakers, and heat the beakers on a steam bath until most of the liquid has evaporated. Do not take to dryness. Add 20 ml of concentrated HNO_3 to the beakers, cover them with a watch glass, and heat on a hot plate at 70 °C for 2 hours. Remove from the hot plate. Filter the solution from digestion of the Container No. 3 contents through Whatman No. 40 filter paper, and save the filtrate for addition to the Container No. 1 filtrate as described in Section 7.3.2. Discard the filter. Filter the solution from the digestion of the Container No. 4 contents through Whatman No. 40 filter paper, and save the filtrate for addition to Container No. 5 filtrate as described in Section 7.3.3. Discard the filter.

7.3.2 Container No. 1 (Impingers, Probe, and Filter Holder) and, if applicable, No. 1A (HCl rinse). Filter the contents of Container No. 1 through Whatman 40 filter paper into a 1-liter volumetric flask to remove the brown MnO_2 precipitate. Save the filter for digestion of the brown MnO_2 precipitate. Add the sample filtrate from Container No. 3 to the 1-liter volumetric flask, and dilute to volume with water. If the combined filtrates are greater than 1000 ml, determine

the volume to the nearest ml and make the appropriate corrections for blank subtractions. Mix thoroughly. Mark the combined filtrates as ANALYSIS SAMPLE No. A.1. and analyze for Hg within 48 hr of the filtration step (Note: Do not confuse ANALYSIS SAMPLE No. A.1. with the contents of field Sample Container No. 1A which contains the 8 N HCl wash). Place the saved filter, which was used to remove the brown MnO_2 precipitate, into an appropriately sized vented container, which will allow release of any gases including chlorine formed when the filter is digested. In a laboratory hood which will remove any gas produced by the digestion of the MnO_2 , add 25 ml of 8 N HCl to the filter and allow to digest for a minimum of 24 hours at room temperature. Filter the contents of Container 1A through Whatman 40 paper into a 500-ml volumetric flask. Then filter the result of the digestion of the brown MnO_2 from Container No. 1 through Whatman 40 filter into the same 500-ml volumetric flask, and dilute and mix well to volume with water. Discard the filter. Mark this combined 500-ml dilute solution as ANALYSIS SAMPLE No. HCL A.2., and analyze for Hg.

7.3.3 Container No. 5 (Absorbing Solution Blank) and No. 6 (HCl Rinse Blank). Prepare the contents of Container No. 5 for analysis by the same procedure used for Container No. 1 as described in Section 7.3.2. Add the filter blank filtrate from Container No. 4 to the 1-liter volumetric flask, and dilute to volume. Mix thoroughly. Mark this as ANALYSIS SAMPLE No. A.1. BLANK, and analyze for Hg within 48 hours of the filtration step. Digest any brown precipitate remaining on the filter from the filtration of Container No. 5 by the same procedure as described in Section 7.3.2. Filter the contents of Container No. 6 by the same procedure as described in Section 7.3.2, and combine in the 500-ml volumetric flask with the filtrate from the digested blank MnO_2 precipitate. Mark this resultant 500-ml combined dilute solution as ANALYSIS SAMPLE No. HCL A.2. blank. (Note: When analyzing samples A.1 blank and HCL A.2 blank, always begin with 10-ml aliquots. This applies specifically to blank samples.)

9.2 Total Mercury. For each source sample, correct the average maximum absorbance of the two consecutive samples whose peak heights agree within 3 percent of their average for the contribution of the blank. Then calculate the total Hg content in μg in each sample. Correct for any dilutions made to bring the sample into the working range of the spectrophotometer.

$$m_{(\text{HCl})\text{Hg}} = \left[\frac{C_{(\text{HCl})\text{Hg}} D.F._{(\text{HCl})\text{Hg}}}{S} - \frac{C_{(\text{HCl} \text{ blk})\text{Hg}} D.F._{(\text{HCl} \text{ blk})\text{Hg}}}{S_{\text{blk}}} \right] V_{(\text{HCl})} (10^{-3}) \quad \text{Eq. 101A-1}$$

where:

$m_{(HCl) Hg}$ = Total blank corrected μg of Hg in HCl rinse and HCl digestate of filter sample

$C_{(HCl) Hg}$ = Total ng of Hg analyzed in the aliquot from the 500-ml ANALYSIS SAMPLE No. HCl A.2.

$C_{(HCl) blk}$ = Total ng of Hg analyzed in aliquot of the 500-ml ANALYSIS SAMPLE No. HCl A.2 blank.

D.F._{(HCl) Hg} = Dilution factor for the HCl-digested Hg-containing solution, ANALYSIS SAMPLE No. "HCl A.2." This dilution factor applies only to the dilution steps, if necessary, of the 500 ml of the original sample volume [$V_{(HCl)}$] of "HCl A.2" because the original volume has been factored out in the equation along with the sample aliquot (S). In Eq. 101A-1, the sample aliquot, S, is digested according to Sections 7.4, 8.1, and 8.2 and the Hg from this digestion is introduced directly into the aeration cell for analysis. A dilution factor is required only if it is necessary to bring the sample into the analytical instrument's calibration range. If no dilution is necessary, then D.F._{(HCl) Hg} equals 1.0.

D.F._{(HCl) blk} = Dilution factor for the HCl-digested Hg-containing solution, ANALYSIS SAMPLE No. "HCl A.2 blank." (Refer to sample No. "HCl A.2" dilution factor information above.)

$V_{(HCl)}$ = Solution volume of original sample, 500 ml for the HCl samples diluted as described in Section 7.3.

10^{-3} = Conversion factor $\mu\text{g}/\text{ng}$.

S = Aliquot volume of sample; digested according to Sections 7.4, 8.1, 8.2 and the Hg from this digestion is introduced directly into the aeration cell for analysis, ml.

S_{blk} = Aliquot volume of blank; digested according to Sections 7.4, 8.1, and 8.2 and the Hg from this digestion is introduced directly into the aeration cell for analysis, ml.

9.2.1 The maximum allowable blank subtraction for the Hg in the HCl washes is the lesser of the two following values: (1) the actual blank measured value (ANALYSIS SAMPLE NO. HCl A.2 blank), or (2) 5% of the Hg content in the combined HCl rinse and digested sample (ANALYSIS SAMPLE No. HCl A.2).

$$m_{(filtr) Hg} = \left[\frac{C_{(filtr) Hg} D.F._{(filtr) Hg} V_{f(filtr)}}{S_{(filtr)}} - \frac{C_{(filtr) blk} D.F._{(filtr) blk} V_{f(filtr) blk}}{S_{(filtr) blk}} \right] (10^{-3}) \quad \text{Eq. 101A-2}$$

where:

$m_{(filtr) Hg}$ = Total blank corrected μg of Hg in KMnO_4 filtrate and HNO_3 digestion of filter sample.

$C_{(filtr) Hg}$ = Total ng of Hg in aliquot of KMnO_4 filtrate and HNO_3 digestion of filter analyzed (aliquot of ANALYSIS SAMPLE No. A.1).

$C_{(filtr) blk}$ = Total ng of Hg analyzed in aliquot of KMnO_4 blank and HNO_3 digestion of blank filter (aliquot of ANALYSIS SAMPLE No. A.1 blank).

$V_{(filtr)}$ = Solution volume of original sample, normally 100 ml for samples diluted as described in Section 7.3.

$V_{(filtr) blk}$ = Solution volume of blank sample, 1000 ml for samples diluted as described in Section 7.3.

D.F._{(filtr) Hg} = Dilution factors, if necessary for ANALYSIS SAMPLE No. A.1, calculated similarly to those above for the (HCl) Hg samples.

D.F._{(filtr) blk} = Dilution factors, if necessary for ANALYSIS SAMPLE No. A.1 blank, calculated similarly to those above for the (HCl) Hg samples.

9.2.2 The maximum allowable blank subtraction for the HCl is the lesser of the two following values: (1) the actual blank measured value (ANALYSIS SAMPLE No. "A.1 blank"), or (2) 5% of the Hg content in the filtrate (ANALYSIS SAMPLE No. "A.1").

$$m_{Hg} = m_{(HCl) Hg} + m_{(filtr) Hg} \quad \text{Eq. 101A-3}$$

where:

m_{Hg} = Total blank corrected Hg content in each sample, μg .

$m_{(HCl) Hg}$ = Total blank corrected μg of Hg in HCl rinse and HCl digestate of filter sample.

$M_{(filtr) Hg}$ = Total blank corrected μg of Hg in KMnO_4 filtrate and HNO_3 digestion of filter sample.

10. * * * * *
3. Wilshire, Frank W., J.E. Knoll, T.E. Ward, and M.R. Midgett. Reliability Study of the U.S. EPA's Method 101A—Determination of Particulate and Gaseous Mercury Emissions U.S. Environmental Protection Agency, Research Triangle Park, NC. Report No. 600/D-31/219 AREAL 367, NTIS Acc No. PB91-23361.

5. In Appendix B to part 61, Method 101A is amended by revising the second and last sentences of section 7.1.1 and by revising the last two sentences of the first paragraph of section 7.1.2 to read as follows:

Appendix B to Part 61—Test Methods

Method 101A Determination of Particulate and Gaseous Mercury Emissions From Sewage Sludge Incinerators Meth. 101A

7.1.1 * * * In this method, highly oxidizable matter could make it impossible to sample for the required minimum time. * * * In cases where an excess of water condensation is encountered, collect two runs to make one sample, or add an extra impinger in front of the first impinger (also containing acidified KMnO_4 solution).

7.2.1 * * * In this method, clean all the glass components (a hood is recommended) by rinsing with 50 percent HNO_3 , tap water, 8 N HCl, tap water, and finally deionized distilled water. Then place 50 ml of the

acidified 4 percent KMnO_4 absorbing solution in the first impinger and 100 ml in each of the second and third impingers.

[FR Doc. 96-9834 Filed 4-24-96; 8:45 am]
BILLING CODE 5540-50-M

40 CFR Part 63

[FRL-5458-7]

State of Tennessee Request for Approval of Section 112(l) Authority

AGENCY: Environmental Protection Agency (EPA).

ACTION: Direct final rule.

SUMMARY: State of Tennessee has applied for approval of its Rule No. 1200-3-11-.08, Emission Standards for Emissions of Radionuclides Other Than Radon From Department of Energy Facilities; and also Rule No. 1200-3-11-.17, National Emission Standard for Radon Emissions From Department of Energy Facilities, under section 112(l) of the Clean Air Act (CAA) as amended November 15, 1990. The Environmental Protection Agency (EPA) has reviewed the State of Tennessee's submittal and has made the decision that the State of Tennessee's Rule No. 1200-3-11-.08 and Rule No. 1200-3-11-.17, satisfies all of the requirements necessary to qualify as a complete submittal. Thus, the EPA intends to take comment on whether the State of Tennessee's Rule No. 1200-3-11-.08 and Rule No. 1200-

actual volumes of the other analytical blanks when calculating their mass values.

7.1.5 Digest the filter that was used to remove any brown MnO_2 precipitate from the blank for Analytical Fraction 3B by the same procedure as described in Section 5.3.5 for the similar sample filter. Filter the digestate and the contents of Container No. 11 through Whatman 40 paper into a 500-ml volumetric flask, and dilute to volume with water. These steps produce a blank for Analytical Fraction 3C.

7.1.6 Analyze the blanks for Analytical Fraction Blanks 1A and 2A per Section 5.4.1 and/or Section 5.4.2. Analyze the blanks for Analytical Fractions 1B, 2B, 3A, 3B, and 3C per Section 5.4.3. Analysis of the blank for Analytical Fraction 1A produces the front-half reagent blank correction values for the desired metals except for Hg; Analysis of the blank for Analytical Fraction 1B produces the front-half reagent blank correction value for Hg. Analysis of the blank for Analytical Fraction 2A produces the back-half reagent blank correction values for all of the desired metals except for Hg, while separate analyses of the blanks for Analytical Fractions 2B, 3A, 3B, and 3C produce the back-half reagent blank correction value for Hg.

7.2 Quality Control Samples. Analyze the following quality control samples.

7.2.1 ICAP and ICP-MS Analysis. Follow the respective quality control descriptions in Section 8 of Methods 6010 and 6020 of EPA Publication SW-846 Third Edition (November 1986) including updates I, II, IIA and IIB, as incorporated by reference in § 60.17(i). For the purposes of a source test that consists of three sample runs, modify those requirements to include the following: two instrument check standard runs, two calibration blank runs, one interference check sample at the beginning of the analysis (analyze by Method of Standard Additions unless within 25 percent), one quality control sample to check the accuracy of the calibration standards (required to be within 25 percent of calibration), and one duplicate analysis (required to be within 20 percent of average or repeat all analyses).

7.2.2 Direct Aspiration AAS and/or GEAAS Analysis for Sb, As, Ba, Be, Cd, Cu, Cr, Co, Pb, Ni, Mn, Hg, P, Se, Ag, Tl, and Zn. Analyze all samples in duplicate. Perform a matrix spike on at least one front-half sample and one back-half sample, or one combined sample. If recoveries of less than 75 percent or greater than 125 percent are obtained for the matrix spike, analyze each sample by the Method of Standard Additions. Analyze a quality control sample to check the accuracy of the calibration standards. If the results are not within 20 percent, repeat the calibration.

7.2.3 CVAAS Analysis for Hg. Analyze all samples in duplicate. Analyze a quality control sample to check the accuracy of the calibration standards (if not within 15 percent, repeat calibration). Perform a matrix spike on one sample (if not within 25 percent, analyze all samples by the Method of Standard Additions). Additional information on quality control can be obtained from Method 7470 of EPA Publication SW-846 Third Edition (November 1986) including updates I, II, IIA and IIB, as incorporated by reference in

§ 60.17(i) or in *Standard Methods for the Examination of Water and Wastewater*, 16th Edition, (1985), Method 303F as incorporated by reference in § 60.17.

8. Calculations

8.1 Dry Gas Volume. Using the data from this test, calculate $V_{m(sld)}$, the dry gas sample volume at standard conditions as outlined in Section 6.3 of Method 5.

8.2 Volume of Water Vapor and Moisture Content. Using the total volume of condensate collected during the source sampling, calculate the volume of water vapor $V_{w(sld)}$ and the moisture content $B_{w,s}$ of the stack gas. Use Equations 5-2 and 5-3 of Method 5.

8.3 Stack Gas Velocity. Using the data from this test and Equation 2-9 of Method 2, calculate the average stack gas velocity.

8.4 Metals (Except Hg) in Source Sample.

8.4.1 Analytical Fraction 1A, Front-Half, Metals (except Hg). Calculate separately the amount of each metal collected in Sample Fraction 1 of the sampling train using the following equation:

$$M_{fh} = C_{a1} F_d V_{soln,1} \quad \text{Eq. 29-1}$$

where:

M_{fh} = Total mass of each metal (except Hg) collected in the front half of the sampling train (Sample Fraction 1), μg .

C_{a1} = Concentration of metal in Analytical Fraction 1A as read from the standard curve, $\mu\text{g}/\text{ml}$.

F_d = Dilution factor (F_d = the inverse of the fractional portion of the concentrated sample in the solution actually used in the instrument to produce the reading C_{a1} . For example, if a 2 ml aliquot of Analytical Fraction 1A is diluted to 10 ml to place it in the calibration range, $F_d = 5$).

$V_{soln,1}$ = Total volume of digested sample solution (Analytical Fraction 1), ml.

8.4.1.1 If Analytical Fractions 1A and 2A are combined, use proportional aliquots. Then make appropriate changes in Equations 29-1 through 29-3 to reflect this approach.

8.4.2 Analytical Fraction 2A, Back-Half, Metals (except Hg). Calculate separately the amount of each metal collected in Fraction 2 of the sampling train using the following equation.

$$M_{bh} = C_{a2} F_d V_2 \quad \text{Eq. 29-2}$$

where:

M_{bh} = Total mass of each metal (except Hg) collected in the back-half of the sampling train (Sample Fraction 2), μg .

C_{a2} = Concentration of metal in Analytical Fraction 2A as read from the standard curve, ($\mu\text{g}/\text{ml}$).

F_d = Aliquot factor, volume of Sample Fraction 2 divided by volume of Sample Fraction 2A (see Section 5.3.4.)

V_2 = Total volume of digested sample solution (Analytical Fraction 2A), ml (see Section 5.3.4.1 or 5.3.4.2, as applicable).

8.4.3 Total Train, Metals (except Hg). Calculate the total amount of each of the quantified metals collected in the sampling train as follows:

$$M_t = (M_{fh} - M_{mb}) + (M_{bh} - M_{mbb}) \quad \text{Eq. 29-3}$$

where:

M_t = Total mass of each metal (separately stated for each metal) collected in the sampling train, μg .

M_{mb} = Blank correction value for mass of metal detected in front-half field reagent blank, μg .

M_{mbb} = Blank correction value for mass of metal detected in back-half field reagent blank, μg .

8.4.3.1 If the measured blank value for the front half (M_{mb}) is in the range 0.0 to "A" μg [where "A" μg equals the value determined by multiplying 1.4 $\mu\text{g}/\text{in.}^2$ times the actual area in in.^2 of the sample filter], use M_{mb} to correct the emission sample value (M_{fh}); if M_{mb} exceeds "A" μg , use the greater of I or II:

I. "A" μg .

II. the lesser of (a) M_{mb} , or (b) 5 percent of M_{fh} .

If the measured blank value for the back-half (M_{mbb}) is in the range 0.0 to 1 μg , use M_{mbb} to correct the emission sample value (M_{bh}); if M_{mbb} exceeds 1 μg , use the greater of I or II:

I. 1 μg .

II. the lesser of (a) M_{mbb} or (b) 5 percent of M_{bh} .

8.5 Hg in Source Sample.

8.5.1 Analytical Fraction 1B, Front-Half Hg. Calculate the amount of Hg collected in the front-half, Sample Fraction 1, of the sampling train by using Equation 29-4:

$$\text{Hg}_{fh} = \frac{Q_{fh}}{V_{f1B}} (V_{soln,1}) \quad \text{Eq. 29-4}$$

where:

Hg_{fh} = Total mass of Hg collected in the front-half of the sampling train (Sample Fraction 1), μg .

Q_{fh} = Quantity of Hg, μg , TOTAL in the ALIQUOT of Analytical Fraction 1B selected for digestion and analysis.

8.5.1.1 For example, if a 10 ml aliquot of Analytical Fraction 1B is taken and digested and analyzed (according to Section 5.4.3 and its NOTES Nos. 1 and 2), then calculate and use the total amount of Hg in the 10 ml aliquot for Q_{fh} .

$V_{soln,1}$ = Total volume of Analytical Fraction 1, ml.

V_{f1B} = Volume of aliquot of Analytical Fraction 1B analyzed, ml.

8.5.1.2 For example, if a 1 ml aliquot of Analytical Fraction 1B was diluted to 50 ml with 0.15 percent HNO_3 as described in Section 5.4.3 to bring it into the proper analytical range, and then 1 ml of that 50-ml was digested according to Section 5.4.3 and analyzed, V_{f1B} would be 0.02 ml.

8.5.2 Analytical Fractions 2B, 3A, 3B, and 3C: Back Half Hg.

8.5.2.1 Calculate the amount of Hg collected in Sample Fraction 2 by using Equation 29-5:

$$\text{Hg}_{bh2} = \frac{Q_{bh2}}{V_{f2B}} (V_{soln,2}) \quad \text{Eq. 29-5}$$

where:

Hg_{bh2} = Total mass of Hg collected in Sample Fraction 2, μg .

Q_{bh2} = Quantity of Hg, μg , TOTAL in the ALIQUOT of Analytical Fraction 2B selected for digestion and analysis.

8.5.2.1.1 For example, if a 10 ml aliquot of Analytical Fraction 2B is taken and digested and analyzed (according to Section 5.4.3 and its NOTES Nos. 1 and 2), then

calculate and use the total amount of Hg in the 10 ml aliquot for Q_{bh2} .

$V_{soln,2}$ = Total volume of Sample Fraction 2, ml.

V_{mb} = Volume of Analytical Fraction 2B analyzed, ml.

8.5.2.1.2 For example, if 1 ml of Analytical Fraction 2B was diluted to 10 ml

with 0.15 percent HNO_3 as described in Section 5.4.3 to bring it into the proper analytical range, and then 5 ml of that 10-ml was analyzed, V_{mb} would be 0.5 ml.

8.5.2.2 Calculate each of the back-half Hg values for Analytical Fractions 3A, 3B, and 3C by using Equation 29-6:

$$\text{Hg}_{bh3(A,B,C)} = \frac{Q_{bh3(A,B,C)}}{V_{f3(A,B,C)}} \left(V_{soln,3(A,B,C)} \right) \quad \text{Eq. 29-6}$$

where:

$\text{Hg}_{bh3(A,B,C)}$ = Total mass of Hg collected separately in Fraction 3A, 3B, or 3C, μg .

$Q_{bh3(A,B,C)}$ = Quantity of Hg, μg , TOTAL, separately, in the ALIQUOT of Analytical Fraction 3A, 3B, and 3C selected for digestion and analysis, (see previous notes in Sections 8.5.1 and 8.5.2 describing the quantity "Q" and calculate similarly).

$V_{f3(A,B,C)}$ = Volume, separately, of Analytical Fraction 3A, 3B, or 3C analyzed, ml (see previous notes in Sections 8.5.1 and 8.5.2, describing the quantity "V" and calculate similarly).

$V_{soln,3(A,B,C)}$ = Total volume, separately, of Analytical Fraction 3A, 3B, or 3C, ml.

8.5.2.3 Calculate the total amount of Hg collected in the back-half of the sampling train by using Equation 29-7:

$$\text{Hg}_{bb} = \text{Hg}_{bh2} + \text{Hg}_{bh3A} + \text{Hg}_{bh3B} + \text{Hg}_{bh3C} \quad \text{Eq. 29-7}$$

where:

Hg_{bb} = Total mass of Hg collected in the back-half of the sampling train, μg .

8.5.3 Total Train Hg Catch. Calculate the total amount of Hg collected in the sampling train by using Equation 29-8:

$$\text{Hg}_t = (\text{Hg}_n - \text{Hg}_{nb}) + (\text{Hg}_{bb} - \text{Hg}_{bnb}) \quad \text{Eq. 29-8}$$

where:

Hg_t = Total mass of Hg collected in the sampling train, μg .

Hg_{nb} = Blank correction value for mass of Hg detected in front-half field reagent blank, μg .

Hg_{bnb} = Blank correction value for mass of Hg detected in back-half field reagent blanks, μg .

8.5.4 If the total of the measured blank values ($\text{Hg}_{nb} + \text{Hg}_{bnb}$) is in the range of 0.0 to 0.6 μg , then use the total to correct the sample value ($\text{Hg}_n + \text{Hg}_{bn}$); if it exceeds 0.6 μg , use the greater of I. or II:

I. 0.6 μg .

II. the lesser of (a) ($\text{Hg}_{nb} + \text{Hg}_{bnb}$), or (b) 5 percent of the sample value ($\text{Hg}_n + \text{Hg}_{bn}$).

8.6 Individual Metal Concentrations in Stack Gas. Calculate the concentration of each metal in the stack gas (dry basis, adjusted to standard conditions) by using Equation 29-9:

$$C_s = \frac{K_s M_t}{V_{m(sd)}} \quad \text{Eq. 29-9}$$

C_s = Concentration of a metal in the stack gas, mg/dscm.

$K_s = 10^{-3}$ mg/ μg .

M_t = Total mass of that metal collected in the sampling train, μg ; (substitute Hg for M_t for the Hg calculation).

$V_{m(sd)}$ = Volume of gas sample as measured by the dry gas meter, corrected to dry standard conditions, dscm.

8.7 Isokinetic Variation and Acceptable Results. Same as Method 5, Sections 6.11 and 6.12, respectively.

9. Bibliography

1. Method 303F in *Standard Methods for the Examination of Water Wastewater*, 16th Edition, 1985. Available from the American Public Health Association, 1015 18th Street NW., Washington, DC 20036.

2. EPA Methods 6010, 6020, 7000, 7041, 7060, 7131, 7421, 7470, 7740, and 7841, *Tesdt Methods for Evaluating Solid Waste: Physical/Chemical Methods*, SW-846, Third Edition, September 1986, with updates I, II, IIA and IIB. Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, DC 20460.

3. EPA Method 200.7, *Code of Federal Regulations*, Title 40, Part 136, Appendix C. July 1, 1987.

4. EPA Methods 1 through 5, *Code of Federal Regulations*, Title 40, Part 60, Appendix A. July 1, 1991.

5. EPA Method 101A, *Code of Federal Regulations*, Title 40, Part 61, Appendix B. July 1, 1991.

PART 61—[AMENDED]

3. The authority citation for part 61 continues to read as follows:

Authority: 42 U.S.C. 7401, 7412, 7414, 7416, and 7601.

4. In part 61, Method 101A of appendix B, by revising the heading, Sections 6.1.5, 7.2.1, 7.2.3, 7.2.5, 7.3.1., 7.3.2, 7.3.3, and 9.2; and by adding sections 5.2.4 through 5.2.7, 6.1.7, 6.1.8, 7.2.1.1 through 7.2.1.3, 7.2.6, 9.2.1, 9.2.2 and reference 3 of item 10 bibliography; and by adding text to the end of section 6.1.6 to read as follows:

Appendix B—Test Methods

Method 101A—Determination of Particulate and Gaseous Mercury Emissions From Stationary Sources

5.2.4 Atomic Absorption Spectrophotometer or Equivalent. Any atomic absorption unit with an open sample presentation area in which to mount the optical cell is suitable. Use those instrument settings recommended by the particular manufacturer. Instruments designed specifically for the measurement of mercury using the cold-vapor technique are commercially available and may be substituted for the atomic absorption spectrophotometer.

5.2.5 Optical Cell. Alternatively, a heat lamp mounted above the cell or a moisture trap installed upstream of the cell may be used.

5.2.6 Aeration Cell. Alternatively, aeration cells available with commercial cold vapor instrumentation may be used.

5.2.7 Aeration Gas Cylinder. Nitrogen, argon, or dry, Hg-free air, equipped with a single-stage regulator. Alternatively, aeration may be provided by a peristaltic metering pump. If a commercial cold vapor instrument is used, follow the manufacturer's recommendations.

6.1.5 Sulfuric Acid (H_2SO_4), 10 Percent (V/V). Carefully add and mix 100 ml of concentrated H_2SO_4 to 800 ml of deionized distilled water. Then, by adding deionized distilled water, mix and bring to a final volume of 1000 ml.

6.1.6 **Precaution:** To prevent autocatalytic decomposition of the permanganate solution, filter the solution through Whatman 541 filter paper. Also, due to the potential reaction of the potassium permanganate with the acid, there could be pressure buildup in the solution storage bottle; therefore these bottles shall not be fully filled and shall be vented to relieve excess pressure and prevent explosive potentials. Venting is required, but should not allow contamination of the solution; a No. 70-72 hole drilled in the container cap and Teflon liner has been used.

6.1.7 Hydrochloric Acid (HCL). Concentrated. Trace-metals grade is recommended. The Hg level shall be less than 3 ng/ml.

6.1.8 HCL, 8 N. Dilute 67 ml of concentrated HCL to 100 ml with water (slowly add the HCL to the water).

7.2.1 Container No. 1 (Impinger, Probe, and Filter Holder) and, if applicable, No. 1A (HCL rinse).

7.2.1.1 Using a graduated cylinder, measure the liquid in the first three

aggregate. The Missouri revisions have no impact on tribal governments.

Through submission of this plan revision, the state has elected to adopt the program provided for under section 110 of the CAA. These rules may bind state and local governments to perform certain actions and also require the private sector to perform certain duties. To the extent that the rules being finalized for approval by this action will impose new requirements, sources are already subject to these regulations under state law. Accordingly, no additional costs to state or local governments, or to the private sector, result from this final action. EPA has also determined that this final action does not include a mandate that may result in estimated costs of \$100 million or more to state or local governments in the aggregate or to the private sector.

Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by April 29, 1996. 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).)

The OMB has exempted these actions from review under Executive Order 12866.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Hydrocarbons, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Dated: December 6, 1995.

Dennis Grams,
Regional Administrator.

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. 7401–7671q.

Subpart AA—[Missouri]

2. Section 52.1320 is amended by adding paragraph (c)(86) to read as follows:

§ 52.1320 Identification of plan.

(c) * * *

(86) A revision to the Missouri SIP to revise the Missouri part D NSR rules, update and add numerous definitions, revise the maximum allowable increase for particulate matter under the requirements for PSD of air quality, address emission statements under Title I of the CAA, and generally enhance the SIP.

(i) Incorporation by reference.

(A) Revision to rules 10 CSR 10–6.020, Definitions and Common Reference Tables, effective August 30, 1995; 10 CSR 10–6.060, Construction Permits Required, effective August 30, 1995; 10 CSR 10–6.110, Submission of Emission Data, Emission Fees, and Process Information, effective May 9, 1994; and 10 CSR 10–6.210, Confidential Information, effective May 9, 1994.

(ii) Additional material. None.

[FR Doc. 96–4566 Filed 2–28–96; 8:45 am]
BILLING CODE 6560–50–P

40 CFR Part 63

[AD–FRL–5431–2]

RIN 2060–AC19

National Emission Standards for Hazardous Air Pollutants for Source Categories: Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry and Other Processes Subject to the Negotiated Regulation for Equipment Leaks

AGENCY: Environmental Protection Agency (EPA).

ACTION: Direct final rule.

SUMMARY: On April 10, 1995, the EPA amended certain portions of the "National Emission Standards for Hazardous Air Pollutants for Source Categories: Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry and Other Processes Subject to the Negotiated Regulation for Equipment Leaks." This rule is commonly known as the Hazardous Organic NESHA^P or the HON. In that action, the EPA revised the rule to provide a deferral of HON requirements for source owners or operators who wish to make an area source certification and to establish minimum documentation requirements. This action revises the date for submittal of those area source certifications and clarifies the wording of the documentation requirements.

This action is being taken because the EPA has learned that sufficient time was not provided to prepare the certifications and that some confusion exists regarding the required documentation.

This action also extends the April 22, 1996 deadline for submittal of implementation plans for emission points not included in an emissions average to December 31, 1996. The deadline for submitting these plans is being extended because the EPA anticipates making further revisions to the rule in the near future that could affect the contents of the implementation plan. In light of this, the EPA thinks it is appropriate to delay this report until there is greater certainty regarding the compliance requirements. **DATES:** The direct final rule will be effective April 19, 1996, unless significant adverse comments are received by April 1, 1996. If significant adverse comments are timely received on any portion of the direct final rule, that portion of the direct final rule will be withdrawn.

ADDRESSES: Comments should be submitted (in duplicate, if possible) to: Air and Radiation Docket and Information Center (6102), Attention: Docket Number A–90–20, Room M–1500, U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460.

FOR FURTHER INFORMATION CONTACT: Dr. Janet S. Meyer, Emission Standards Division (MD–13), U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina 27711, telephone number (919) 541–5254.

SUPPLEMENTARY INFORMATION: If significant adverse comments are timely received on any portion of this direct final rule, that portion of the direct final rule will be withdrawn and all such comments will be addressed in a subsequent final rule based on the proposed rule contained in the Proposed Rules Section of this Federal Register that is identical to this direct final rule. If no significant adverse comments are timely received on this direct final rule, then the direct final rule will become effective April 19, 1996, and no further action is contemplated on the parallel proposal published today.

I. Background and Summary of Changes to Rule

On April 22, 1994 (59 FR 19402), and June 6, 1994 (59 FR 29196), the EPA promulgated in the Federal Register National Emission Standards for Hazardous Air Pollutants (NESHA^P) for

the Synthetic Organic Chemical Manufacturing Industry (SOCMI), and for several other processes subject to the equipment leaks portion of the rule. These regulations were promulgated as subparts F, G, H, and I in 40 CFR Part 63, and are commonly referred to as the hazardous organic NESHAP, or the HON. Since the April 22, 1994 notice, there have been several amendments to clarify various aspects of the rule. Readers should see the following Federal Register notices for more information: September 20, 1994 (59 FR 48175); October 24, 1994 (59 FR 53359); October 28, 1994 (59 FR 54131); January 27, 1995 (60 FR 5321); April 10, 1995 (60 FR 18020); April 10, 1995 (60 FR 18026); and December 12, 1995 (60 FR 63624).

A. Area Source Certification

On April 10, 1995, new paragraphs were added to § 63.100(b) and § 63.103(f) of subpart F and § 63.190(b) of subpart I to provide procedures to certify and document that a source is operating below the thresholds for a major source. Those provisions specified that the certifications were to be submitted no later than May 10, 1995. This date was 30 days after the date of publication of the notice and consistent with the proposed requirement. Since the amendment was issued, the EPA has learned that there are a number of potential area source facilities whose owners learned of this amendment for the first time after May 10, 1995. The EPA believes that, in view of these circumstances, it is appropriate to provide additional time for submittal of the certifications. Therefore, this document revises the date for submittal of those certifications until May 14, 1996.

The EPA has also learned that there are questions regarding the requirements for documentation that actual emissions are below the major source threshold. To address this confusion, the first sentence in § 63.100(b)(4)(i)(B) is being revised to clarify that emissions are to be estimated for maximum expected operating conditions for the facility. This revision is necessary to make the rule consistent with the EPA's intent to allow sources with actual annual emissions less than major source thresholds the additional time necessary to obtain federally enforceable limits (59 FR 53393 and 60 FR 18021). The same revision is also being made to § 63.190(b)(7)(i)(B) of subpart I.

B. Date for Submission of Implementation Plan

The EPA is extending the April 22, 1996 deadline for submittal of implementation plans for emission points not included in an emissions average to December 31, 1996. The deadline for submitting these plans is being extended because there are uncertainties regarding the applicability of the rule to certain sources and there are uncertainties regarding the requirements of certain provisions. These uncertainties are caused by the existence of pending litigation on the final rule, the need to review and respond to several recent changes to the final rule, and the possibility of further changes being made to the final rule in the near future.

Since the April 22, 1994 notice, there have been several amendments to clarify various aspects of the rule. The most recent of these notices was published on December 12, 1995. On April 10, 1995 (60 FR 18071), the EPA proposed to remove three compounds from the list of chemical production processes regulated by the rule. The EPA anticipates issuing a final notice to complete that rulemaking in the near future. Additionally, the EPA anticipates that it is likely to propose at least one more set of additional changes to the rule in the near future. Since these changes may affect compliance planning for some sources, it is appropriate to delay this report until there is greater certainty regarding the compliance requirements.

II. Administrative

A. Paperwork Reduction Act

The information collection requirements of the previously promulgated NESHAP were submitted to and approved by the Office of Management and Budget (OMB). A copy of this Information Collection Request (ICR) document (OMB control number 1414.02) may be obtained from Sandy Farmer, Information Policy Branch (PM-223Y); U.S. Environmental Protection Agency; 401 M Street, SW; Washington, DC 20460 or by calling (202) 260-2740.

Today's changes to the NESHAP should have no impact on the information collection burden estimates made previously. The change to the area source certification merely revises the date for submission of the certification and clarifies the documentation requirements. The change to the implementation plan requirements merely extends the date for submission of plans from existing sources. These changes do not impose new

requirements. Consequently, the ICR has not been revised.

B. Executive Order 12866 Review

Under Executive Order (E.O.) 12866, the EPA must determine whether the proposed regulatory action is "not significant" and therefore, subject to the Office of Management and Budget (OMB) review and the requirements of the Executive Order. The Order defines "significant" regulatory action as one that is likely to lead to 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 in 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.

The HON rule promulgated on April 22, 1994 was considered "significant" under Executive Order 12866 and a regulatory impact analysis (RIA) was prepared. The amendments issued today clarify the rule and do not add any additional control requirements. Therefore, this regulatory action is considered not significant.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act of 1980 requires the identification of potentially adverse impacts of Federal regulations upon small business entities. The Act specifically requires the completion of a Regulatory Flexibility Analysis in those instances where small business impacts are possible. Pursuant to section 605(b) of the Regulatory Flexibility Act, 5 U.S.C. 605(b), the Administrator certifies that this rule will not have a significant economic impact on a substantial number of small entities. Because this rulemaking imposes no adverse economic impacts, a Regulatory Flexibility Analysis has not been prepared.

D. Unfunded Mandates

Under Section 202 of the Unfunded Mandates Reform Act of 1995 ("Unfunded Mandates Act"), the EPA must prepare a budgetary impact statement to accompany any proposed or final rule that includes a Federal mandate that may result in estimated

costs to State, local, or tribal governments in the aggregate; or to the private sector, of \$100 million or more. Under Section 205, the EPA must select the most cost-effective and least burdensome alternative that achieves the objectives of the rule and is consistent with statutory requirements. Section 203 requires the EPA to establish a plan for informing and advising any small governments that may be significantly or uniquely impacted by the rule.

The EPA has determined that the action promulgated today does not include 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. Therefore, the requirements of the Unfunded Mandates Act do not apply to this action.

List of Subjects in 40 CFR Part 63

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

Dated: February 21, 1996.

Carol M. Browner,
Administrator.

For the reasons set out in the preamble, title 40, chapter I, part 63, subparts F, G, and I, of the Code of Federal Regulations are 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 F—National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry

2. Section 63.100 is amended by revising paragraph (b)(4) introductory text and the first sentence in paragraph (b)(4)(i)(B) to read as follows:

§ 63.100 Applicability and designation of source.

(b) * * *

(4) The owner or operator of a chemical manufacturing processing unit is exempt from all requirements of subparts F, G, and H of this part until not later than April 22, 1997 if the owner or operator certifies, in a notification to the appropriate EPA Regional Office, not later than May 14, 1996, that the plant site at which the chemical manufacturing processing unit is located emits, and will continue to emit, during any 12-month period, less

than 10 tons per year of any individual hazardous air pollutants (HAP), and less than 25 tons per year of any combination of HAP.

(i) * * *

(B) The owner or operator shall calculate the amount of annual HAP emissions released from each emission point at the plant site, using acceptable measurement or estimating techniques for maximum expected operating conditions at the plant site. * * *

Subpart G—National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater

3. Section 63.151 is amended by revising paragraph (c)(1)(ii) to read as follows:

§ 63.151 Initial notification and implementation plan.

(c) * * *

(1) * * *

(ii) Each owner or operator of an existing source subject to this subpart who elects to comply with § 63.112 of this subpart by complying with the provisions of §§ 63.113 to 63.148 of this subpart, rather than emissions averaging, for any emission points, and who has not submitted an operating permit application accompanied by the information specified in § 63.152(e) by December 31, 1996, shall develop an Implementation Plan. For an existing source, the Implementation Plan for those emission points that are not to be included in an emissions average shall be submitted to the Administrator no later than December 31, 1996.

Subpart I—National Emission Standards for Organic Hazardous Air Pollutants for Certain Processes Subject to the Negotiated Regulation for Equipment Leaks

4. Section 63.190 is amended by revising paragraph (b)(7) introductory text and the first sentence in paragraph (b)(7)(i)(B) to read as follows:

§ 63.190 Applicability and designation of source.

(b) * * *

(7) The owner or operator of a plant site at which a process specified in paragraphs (b)(1) through (b)(6) of this section is located is exempt from all requirements of this subpart I until not later than April 22, 1997 if the owner or

operator certifies, in a notification to the appropriate EPA Regional Office, not later than May 14, 1996, that the plant site at which the process is located emits, and will continue to emit, during any 12-month period, less than 10 tons per year of any individual HAP, and less than 25 tons per year of any combination of HAP.

(i) * * *

(B) The owner or operator shall calculate the amount of annual HAP emissions released from each emission point at the plant site, using acceptable measurement or estimating techniques for maximum expected operating conditions at the plant site. * * *

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40 CFR Part 63

[AD-FRL-5432-3] *NESHAP*

National Emission Standards for Hazardous Air Pollutants for Source Categories: Gasoline Distribution (Stage I)

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule amendments.

SUMMARY: This action amends the "National Emission Standards for Hazardous Air Pollutants for Source Categories: Gasoline Distribution (Stage I)" (the "Gasoline Distribution NESHAP"). These final amendments extend the initial compliance date for the equipment leak provisions applicable to existing sources to no later than December 15, 1997, and amend the date by which an existing facility must provide an initial notification to December 16, 1996 or 1 year after a facility becomes subject to the Gasoline Distribution NESHAP, whichever is later.

DATES: Effective Date: February 29, 1996.

Judicial Review. Under section 307(b)(1) of the Clean Air Act (Act), judicial review of NESHAP is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days of today's publication of these final amendments. Under section 307(b)(2) of the Act, 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.

ADDRESSES: Docket. Docket No. A-92-38, Categories VI Reconsideration and VII Amendments, containing

costs to State, local, or tribal governments in the aggregate; or to the private sector, of \$100 million or more. Under Section 205, the EPA must select the most cost-effective and least burdensome alternative that achieves the objectives of the rule and is consistent with statutory requirements. Section 203 requires the EPA to establish a plan for informing and advising any small governments that may be significantly or uniquely impacted by the rule.

The EPA has determined that the action promulgated today does not include 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. Therefore, the requirements of the Unfunded Mandates Act do not apply to this action.

List of Subjects in 40 CFR Part 63

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

Dated: February 21, 1996.

Carol M. Browner,
Administrator.

For the reasons set out in the preamble, title 40, chapter I, part 63, subparts F, G, and I, of the Code of Federal Regulations are 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 F—National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry

2. Section 63.100 is amended by revising paragraph (b)(4) introductory text and the first sentence in paragraph (b)(4)(i)(B) to read as follows:

§ 63.100 Applicability and designation of source.

(b) * * *

(4) The owner or operator of a chemical manufacturing processing unit is exempt from all requirements of subparts F, G, and H of this part until not later than April 22, 1997 if the owner or operator certifies, in a notification to the appropriate EPA Regional Office, not later than May 14, 1996, that the plant site at which the chemical manufacturing processing unit is located emits, and will continue to emit, during any 12-month period, less

than 10 tons per year of any individual hazardous air pollutants (HAP), and less than 25 tons per year of any combination of HAP.

(i) * * *

(B) The owner or operator shall calculate the amount of annual HAP emissions released from each emission point at the plant site, using acceptable measurement or estimating techniques for maximum expected operating conditions at the plant site. * * *

Subpart G—National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater

3. Section 63.151 is amended by revising paragraph (c)(1)(ii) to read as follows:

§ 63.151 Initial notification and implementation plan.

(c) * * *

(1) * * *

(ii) Each owner or operator of an existing source subject to this subpart who elects to comply with § 63.112 of this subpart by complying with the provisions of §§ 63.113 to 63.148 of this subpart, rather than emissions averaging, for any emission points, and who has not submitted an operating permit application accompanied by the information specified in § 63.152(e) by December 31, 1996, shall develop an Implementation Plan. For an existing source, the Implementation Plan for those emission points that are not to be included in an emissions average shall be submitted to the Administrator no later than December 31, 1996.

Subpart I—National Emission Standards for Organic Hazardous Air Pollutants for Certain Processes Subject to the Negotiated Regulation for Equipment Leaks

4. Section 63.190 is amended by revising paragraph (b)(7) introductory text and the first sentence in paragraph (b)(7)(i)(B) to read as follows:

§ 63.190 Applicability and designation of source.

(b) * * *

(7) The owner or operator of a plant site at which a process specified in paragraphs (b)(1) through (b)(6) of this section is located is exempt from all requirements of this subpart I until not later than April 22, 1997 if the owner or

operator certifies, in a notification to the appropriate EPA Regional Office, not later than May 14, 1996, that the plant site at which the process is located emits, and will continue to emit, during any 12-month period, less than 10 tons per year of any individual HAP, and less than 25 tons per year of any combination of HAP.

(i) * * *

(B) The owner or operator shall calculate the amount of annual HAP emissions released from each emission point at the plant site, using acceptable measurement or estimating techniques for maximum expected operating conditions at the plant site. * * *

[FR Doc. 96-4441 Filed 2-28-96; 8:45 am]
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40 CFR Part 63

[AD-FRL-5432-3] *NESHAPS*

National Emission Standards for Hazardous Air Pollutants for Source Categories: Gasoline Distribution (Stage I)

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule amendments.

SUMMARY: This action amends the "National Emission Standards for Hazardous Air Pollutants for Source Categories: Gasoline Distribution (Stage I)" (the "Gasoline Distribution NESHAP"). These final amendments extend the initial compliance date for the equipment leak provisions applicable to existing sources to no later than December 15, 1997, and amend the date by which an existing facility must provide an initial notification to December 16, 1996 or 1 year after a facility becomes subject to the Gasoline Distribution NESHAP, whichever is later.

DATES: Effective Date, February 29, 1996.

Judicial Review. Under section 307(b)(1) of the Clean Air Act (Act), judicial review of NESHAP is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days of today's publication of these final amendments. Under section 307(b)(2) of the Act, 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.

ADDRESSES: Docket. Docket No. A-92-38. Categories VI Reconsideration and VII Amendments, containing

information considered by the EPA in developing the final amendments, is available for public inspection and copying between 8 a.m. and 5:30 p.m., Monday through Friday, except Federal holidays, at the EPA's Air and Radiation Docket and Information Center, room M1500, U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460; telephone (202) 260-7548. A reasonable fee may be charged for copying. This docket also contains information considered by the EPA in proposing and promulgating the Gasoline Distribution NESHAP.

An electronic version of these final amendments and the proposal are available for download from the EPA Technology Transfer Network (TTN), a network of electronic bulletin boards developed and operated by the Office of Air Quality Planning and Standards. The TTN provides information and technology exchange in various areas of air pollution control. The service is free, except for the cost of a phone call. Dial (919) 541-5742 for data transfer of up to 14,400 bits per second. The TTN is also available on the Internet (access: TELNET ttnbbs.rtpnc.epa.gov). If more information on the operation of the TTN is needed, contact the systems operator at (919) 541-5384.

FOR FURTHER INFORMATION CONTACT: Mr. Stephen Shedd at telephone number (919) 541-5397 or at fax number (919) 541-3470, Emission Standards Division (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

SUPPLEMENTARY INFORMATION: The information presented in this preamble is organized as follows:

- I. Background and Final Amendments
 - A. Background
 - B. Summary of Amendments
- II. Comments on the Proposed Amendments
 - A. Public Participation
 - B. Comments Received on the Proposed Amendments
 - C. Summary of Comments and EPA Responses
 - 1. Opportunity for Comment
 - 2. Extension of Deadline for Initial Notification
 - 3. Extension of Initial Compliance Date for Leak Detection and Repair (LDAR)
 - 4. Potential to Emit (PTE)
 - 5. Risk
- III. Administrative Requirements
 - A. Paperwork Reduction Act
 - B. Executive Order 12866
 - C. Regulatory Flexibility Act
 - D. Unfunded Mandates Act
 - E. Regulatory Review

I. Background and Final Rule Amendments

A. Background

On December 14, 1994 (59 FR 64303), the EPA promulgated the "National Emission Standards for Hazardous Air Pollutants for Source Categories: Gasoline Distribution (Stage I)" (the "Gasoline Distribution NESHAP"). The Gasoline Distribution NESHAP regulates all hazardous air pollutants (HAP) emitted from new and existing bulk gasoline terminals and pipeline breakout stations that are major sources of HAP emissions or are located at sites that are major sources of HAP emissions. Among the promulgated requirements for existing sources under this rule are the requirements that sources institute an equipment leak prevention program and provide an initial notification of regulatory status no later than December 14, 1995 (40 CFR §§ 63.424(e) and 63.428(a)).

On November 7, 1995 (60 FR 56133), the EPA proposed amendments to the Gasoline Distribution NESHAP. The EPA proposed to amend the initial compliance date for the equipment leak provisions applicable to existing sources from no later than December 14, 1995 to no later than December 15, 1997, and to amend the date by which an existing facility must provide an initial notification to December 16, 1996 or 1 year after a facility becomes subject to the Gasoline Distribution NESHAP, whichever is later. Those modifications were proposed because the compliance date for these provisions was approaching and the EPA believes that, under current circumstances, additional time will allow sources a better opportunity to establish major or area source status without forgoing quantifiable emissions reductions.

On December 8, 1995 (60 FR 62991), the EPA issued a partial 3-month stay of the December 14, 1995 compliance date for equipment leak prevention provisions and providing an initial notification of regulatory status and use of a screening equation in the Gasoline Distribution NESHAP. The December 14, 1995 compliance date for leak detection and repair provisions and initial notifications was stayed for existing facilities until March 7, 1996. The EPA issued the stay pursuant to Clean Air Act section 307(d)(7)(B), 42 U.S.C. 7607(d)(7)(B), which provides the Administrator authority to stay the effectiveness of a rule during reconsideration.

B. Summary of Amendments

After considering all of the comments, both for and against the proposed

amendments, the EPA is promulgating these rule amendments as they were proposed. The EPA consideration and response to all the comments are contained in the next section of this document. In summary, the final amendments consist of two new compliance dates in the promulgated rule: the initial compliance date for the equipment leak provisions (§ 63.424(e)) applicable to existing sources is no later than December 15, 1997, and the date by which an existing facility must provide an initial notification (§ 63.428(a)) is December 16, 1996 or 1 year after a facility becomes subject to the Gasoline Distribution NESHAP, whichever is later. This action also clarifies that all initial notifications are to be submitted by the same time (December 16, 1996) as intended at proposal and noted in the stay. The EPA is promulgating this related clarifying amendment that extends the notification for area source facilities using an emission screening equation (§ 63.428 (i)(1) and (j)(1)) to that same date. The EPA continues to believe that, under current circumstances, this additional time is needed to allow sources a better opportunity to establish major or area source status without forgoing quantifiable emissions reductions.

II. Comments on the Proposed Amendments

A. Public Participation

These amendments were proposed in the Federal Register on November 7, 1995 (60 FR 56133). Public comments were solicited at the time of proposal. Electronic versions of the preamble and proposed regulatory amendments were made available to interested parties immediately after signature (on November 2, 1995) via the TTN bulletin board (see ADDRESSES section of this preamble for more TTN information).

The preamble to the proposed amendments provided the public the opportunity to request a public hearing. However, a public hearing was not requested. The public comment period for the proposed amendments was from November 7, 1995 until December 7, 1995 and the document was available to the public on the TTN even earlier, as of November 2, 1995. In all, 13 comment letters were received. The comments have been carefully considered in arriving at the final amendments being promulgated in this document.

B. Comments Received on the Proposed Amendments

Comments on the proposed amendments were received from 13 commenters, consisting of oil

companies (10), trade organizations (2), and one environmental organization. Most of the commenters were in general agreement with the proposed amendments. Due to the small number of comments received, and the fact that technical issues were not involved, no background information document (BID) was prepared to present more detailed comments and responses.

However, the original comment letters have been placed in the docket, which is referred to in the ADDRESSES section of this preamble. For summary purposes, all of the comments have been grouped by the topic areas they address, and are discussed in the next section.

C. Summary of Comments and EPA Responses

As mentioned in the previous section, all but one of the commenters expressed general agreement with the proposed amendments to the Gasoline Distribution (Stage I) NESHAP. A summary of the major comments and the EPA's responses is presented below.

(1) Opportunity for Comment

One commenter considered the comment period for the proposal to be inadequate to allow most citizens to comment on the proposal, since it frequently requires a week or more for the *Federal Register* to arrive at public libraries, and another week or more for placement on library shelves. This leaves less than 2 weeks to research, write, edit, and mail comments. This commenter also felt that most citizens were unlikely to have learned of the opportunity to request a public hearing before the deadline for requesting such a hearing expired. However, the commenter did not request extension of the time to comment.

The EPA placed the proposal preamble and amendments on the TTN on November 2, 1995, 1 day after it was signed by the Administrator. The TTN is an electronic (computer) bulletin board, free to users, and is available on the Internet for use by the public. The usual comment period (30 days beginning with publication of the proposal in the *Federal Register*) and opportunity for requesting a hearing were provided at the time of proposal. No person contacted the EPA to request more time to comment. The time period was consistent with the requirements of section 307 of the Act. The EPA did not provide a longer comment period due to the relative narrowness and simplicity of the proposal and the proximity of the compliance dates. For these reasons, the EPA believes that a reasonable amount of time was afforded the public for commenting on the proposal.

(2) Extension of Deadline for Initial Notification

Twelve of the commenters expressed support for the proposed amendment to the initial notification date for existing sources. Most said that the change was essential to provide many bulk terminals and pipeline breakout stations a reasonable opportunity to calculate their potential to emit and to determine the applicability of the NESHAP. Four commenters supported the non-binding clause of the initial notification, feeling that such a clause will encourage would-be major sources to consider pollution prevention opportunities or additional controls prior to the December 15, 1997 compliance date. Commenters also pointed out that the amended notification date would not have any adverse impact on the environment. Potential negative consequences of not finalizing the amendment cited by commenters included the erroneous classification of many facilities as major sources due to the short time available to establish area source status, and the avoidance of these terminals by outside tank truck firms not wishing to incur the vapor tightness testing obligations associated with affected terminals.

The EPA is promulgating the amendment to the initial notification deadline for existing sources as it was proposed: 1 year after an affected source becomes subject to the NESHAP or by December 16, 1996, whichever is later. In addition, the clause specifying that declarations of major source status submitted by this deadline will be considered non-binding for 1 year has been retained in the final amendments. This means that facilities that include in their notification a brief description and schedule for their planned actions for achieving area source status by December 15, 1997 can make a change to their status until this latter deadline. The EPA believes that although the information in the notifications may change, it provides necessary information for tank truck companies in planning their vapor tightness testing schedules and for Federal, State, and local air pollution control agencies in planning for rule implementation and compliance activities.

(3) Extension of Initial Compliance Date for Leak Detection and Repair (LDAR)

Twelve of the commenters also supported the proposed amendment to the initial compliance date, which affects only periodic visual inspection programs for leaks from gasoline equipment components. These commenters said that the change was

essential to provide many terminals and pipeline breakout stations a reasonable chance to demonstrate that they are not major sources subject to the NESHAP, and to allow time for the resolution of the potential to emit issue (see next comment topic). One commenter stated that this amendment would provide State and local agencies additional time to develop EPA-approved federally enforceable State operating permit (FESOP) programs and to complete permit processing. Another company said that EPA approvals of its 33 FESOP and 15 Title V permit actions have been very slow and the company would not be able to obtain these permits by the promulgated first compliance date of December 14, 1995. The company felt that this date extension would give them a reasonable opportunity to obtain approval of artificial limits on potential to emit from most, if not all, of the appropriate State agencies. Commenters believed that having a common compliance date for all aspects of the regulation would allow more time for facility owners and operators to consider pollution prevention opportunities or additional controls. A number of commenters pointed out that equipment leak emissions represent a minor portion of a facility's total HAP emission inventory, and most facilities already have some type of routine visual inspection program. Therefore, the proposed change would have no long-term adverse impact on human health or the environment.

One commenter, however, expressed concern that the EPA, by delaying the initial compliance date, would put citizens at risk on the basis of the already high levels of benzene and other gasoline components in the air around terminals.

The EPA has considered all of these comments, including the comment opposing the compliance date extension. The EPA continues to believe that deferral of the compliance date for the equipment leak provisions for existing sources until December 15, 1997 is the most appropriate way to allow sources a better opportunity to establish major or area source status without forgoing quantifiable emissions reductions. The EPA also agrees with commenters that equipment leak emissions are relatively small under normal operations, and so delaying compliance with the visual inspection requirement for major source facilities will not produce any significant increase in risk to exposed populations. (See the more complete discussion of risk under section (5) Risk below.)

(4) Potential to Emit (PTE)

Several commenters took issue with the EPA's policy that only federally enforceable control standards or operating limitations would be considered in determining the potential to emit of facilities and, consequently, whether they would be a major source and subject to the NESHAP. Four commenters cited a decision by the U.S. Court of Appeals for the District of Columbia Circuit ruling that the EPA's stand on the issue is unlawful, which the commenters interpreted to indicate that the policy has been vacated and is no longer in effect. One commenter stated that the EPA's insistence on maintaining its policy on this matter creates confusion on the part of facilities potentially subject to this rule. Three other commenters said that requiring federally enforceable emission controls in determinations of potential to emit inflates emission estimates, which could cause area sources to be classified as major sources required to undertake unnecessary controls and programs. Two commenters concluded that the EPA should allow permitting authorities to take into account State and local controls that the permitting authority deems effective in limiting facilities' potential to emit.

The EPA's proposal to amend the Gasoline Distribution NESHAP focused narrowly on the issue of modifying compliance dates for two provisions, the equipment leak inspection requirements and the notification of major source status, rather than the distinct issues of whether the emission screening equation and the emissions inventory methods of calculating potential to emit should be revised to reflect limitations on emissions that are not federally enforceable, and whether Federal enforceability should be a necessary criterion for determination of potential to emit under section 112 in general. Thus, comments regarding these latter two issues are outside the scope of the topics raised by the proposal. However, the EPA believes it is useful in response to these comments to summarize the impact of the court decision referenced by commenters, as well as related EPA guidance recognizing State-enforced PTE limits under section 112 during a transition period.

The EPA interpreted the impact of the referenced court decision in a January 22, 1996 guidance memorandum, which is contained in the docket and is also available on the TTN (see ADDRESSES section). The memorandum stated that, in *National Mining Association v. EPA*, 59 F.3d 1351 (D.C. Cir. 1995), the court addressed regulations under subpart A

of 40 CFR part 63, the "General Provisions" of hazardous air pollutant programs under section 112. The court found that the EPA had not adequately explained why only federally enforceable measures should be considered as limits on a source's potential to emit. Accordingly, the court remanded the section 112 General Provisions regulation to the EPA for further proceedings. The EPA must either provide a better explanation as to why Federal enforceability promotes the effectiveness of State controls, or remove the exclusive Federal enforceability requirement. The court did not vacate the section 112 regulations; that is, the court did not declare the regulations null and void. The regulations remain in effect pending completion of new rulemaking.

The EPA plans to hold discussions with stakeholders and propose rulemaking amendments by spring 1996, and to issue final rules by spring 1997, that would address the court decisions impacting regulations promulgated pursuant to section 112 as well as other air act provisions. The EPA currently plans to address the following options, after discussions with stakeholders:

(a) An approach that would recognize "effective" State-enforceable limits as an alternative to federally enforceable limits on a source's potential to emit. Under this option, a source whose maximum capacity to emit without pollution controls or operational limitations exceeds relevant major source thresholds may take a State or local limit on its potential to emit. In such circumstances, the source must be able to demonstrate that the State-enforceable limits are (1) enforceable as a practical matter, and (2) being regularly complied with by the facility.

(b) An approach under which the EPA would continue to require Federal enforceability of limits on a source's potential to emit. Under this approach, in response to specific issues raised by the court in *National Mining*, the EPA would present further explanation regarding why the Federal enforceability requirement promotes effective controls. Under this approach, the EPA would propose simplifying changes to the administrative provisions of the current Federal enforceability regulations.

Any method for limiting potential to emit made available as a result of the EPA's response to the *NMA* remand will be available to sources in the Gasoline Distribution (Stage I) source category. The EPA expects to respond to the remand in *NMA* with adequate time to allow such sources to seek any new methods developed.

The EPA today reiterates that independent from the decision in *National Mining*, current EPA policy already recognizes State-enforceable PTE limits under section 112 in many circumstances under a transition policy intended to provide for orderly implementation of these new programs under the Clean Air Act Amendments of 1990. This policy is set forth in a memorandum, "Options for Limiting the Potential to Emit (PTE) of a Stationary Source Under Section 112 and Title V of the Clean Air Act" (January 25, 1995), and has been amended in one significant way by the January 22, 1996 guidance memorandum as noted below. (Both memoranda are contained in the docket and are also available on the TTN, see ADDRESSES section.)

Under the terms of the EPA's transition policy, the transition period is to end in January 1997. In addition, completion of the EPA's rulemaking in response to the recent court decisions, which the EPA anticipates will occur by early 1997, may render the transition policy unnecessary after that time. However, in conjunction with the rulemaking, the EPA will consider whether it is appropriate to extend the transition period beyond January 1997.

In recognition of the absence in some States of suitable federally enforceable mechanisms to limit PTE applicable to sources that might otherwise be subject to section 112 or Title V, the EPA's policy provides for the consideration of State-enforceable limits as a gap-filling measure during a transition period that extends until January 1997. Under this policy, for the 2-year transition period, restrictions contained in State permits issued to sources that actually emit more than 50 percent, but less than 100 percent, of a relevant major source threshold are treated by the EPA as acceptable limits on potential to emit, provided: (a) the permit and the restriction in particular are enforceable as a practical matter, and (b) the source owner submits a written certification to the EPA accepting EPA and citizen enforcement. In light of *National Mining*, the EPA believes that the certification requirement is no longer appropriate as part of this policy. Accordingly, under the January 1996 guidance, the EPA amended the January 1995 transition policy by deleting the certification requirement.

In addition, under the transition policy, sources with consistently low levels of actual emissions relative to major source thresholds can avoid major source requirements even absent any permit or other enforceable limit on PTE. Specifically, the policy provides

that sources which maintain their emissions at levels that do not exceed 50 percent of any applicable major source threshold are not treated as major sources and do not need a permit to limit PTE, so long as they maintain adequate records to demonstrate that the 50 percent level is not exceeded.

The EPA's action in this rule to extend the compliance dates for the two provisions will give more opportunities for sources to obtain potential to emit limits consistent with the EPA's guidance and hence avoid being subject to regulation as major sources.

One commenter disagreed with the EPA's interpretation that if a facility does not demonstrate area source status by the first substantive compliance date, then the facility, regardless of actual emissions or any subsequent State operating permit limitation, would be permanently classified as a major source.

The EPA's interpretation was explained in an EPA guidance memorandum from John S. Seitz, "Potential to Emit for MACT Standards—Guidance on Timing Issues" (May 16, 1995), which is contained in the docket (item no. VI-B-6) and is also available on the TTN (see ADDRESSES section). The EPA notes that the commenter viewed finalizing the proposed amendments to the compliance dates as a "critical need * * * [to] avoid unintended inclusion of area sources." For the facilities in this source category, the EPA and many commenters believe that delaying the first compliance date will provide the relief being sought by the above commenters.

A number of commenters noted that the emission screening equation in the final rule cannot be used by bulk terminals because essentially all terminals handle non-gasoline products, such as diesel fuel or home heating oil, which makes them ineligible to use the equation. The commenters urged the EPA to reexamine the issue of which facilities are eligible to use the equation, pointing out that the HAP emitted from these products are "de minimis" and should not compel facilities to use the more cumbersome and costly emissions inventory mechanism for determining potential to emit.

As discussed in the proposal preamble, the EPA is considering data and information submitted by the API (and available in the docket) in order to evaluate a possible expansion of the screening equation to include non-gasoline products that emit HAP, and will make a final decision about changes to the equation under a separate action. The EPA is still reviewing this

information and is not prepared to discuss any specific changes to the equation at this time. Depending on the results of its review of the pertinent data, the EPA may propose changes to the equation and request comment in a forthcoming and separate action in the Federal Register.

(5) Risk

One commenter opposed the proposal to delay the initial compliance date for the NESHAP on the grounds that the health risk to populations exposed to ambient HAP concentrations near terminals would be increased. The commenter expressed a belief that the language and legislative history of the Clean Air Act reflects a Congressional intent to limit public exposures to carcinogens to a level that will not produce a lifetime risk of cancer at a rate greater than one in a million. According to the commenter, a 50-year lifetime constant exposure to a gasoline vapor concentration of 0.639 part per billion (ppb) would correspond to the Act's one-in-a-million lifetime risk standard. The commenter cited a 1993 air quality study at the Paw Creek terminals in North Carolina that indicated a maximum benzene concentration of 2.2 ppb, which they claimed corresponds to a lifetime cancer risk of at least 131 per million. The commenter concluded that emission levels corresponding to such risks ought to be reduced as quickly as possible.

The EPA has not performed a risk analysis to allow the EPA to verify the risk estimation results cited by the commenter, nor did the commenter include a copy of the study with their comments. However, in accordance with sections 112 (d)(6) and (f)(2) of the Act, the Gasoline Distribution NESHAP will be reviewed within 8 years after the date of promulgation (i.e., by December 14, 2002). This review may include an assessment of residual health risk, in addition to many other aspects of the regulation. As discussed above, the proposal and this final action only extend the compliance time for instituting programs to perform visual inspections and subsequent repair of equipment components in gasoline service at terminals and pipeline breakout stations. Most facilities are already carrying out similar informal programs and, furthermore, data show that the HAP emissions from this equipment in normal operation are very low. The compliance date of December 15, 1997 promulgated in the final rule for the remaining emission sources at bulk terminals will not be affected by this action. Due to these factors, the EPA believes that this action will not

substantially change the emissions near major source gasoline distribution facilities. For these reasons, the EPA is finalizing the extension of the compliance date for LDAR until December 15, 1997 as proposed on November 7, 1995.

III. Administrative Requirements

A. Paperwork Reduction Act

The information collection requirements of the previously promulgated NESHAP were submitted to and approved by the Office of Management and Budget (OMB). A copy of this Information Collection Request (ICR) document (OMB control number 2060-0325) may be obtained from Ms. Sandy Farmer, Information Policy Branch, Environmental Protection Agency, 401 M Street, S.W. (mail code 2136), Washington, DC 20460, or by calling (202) 260-2740.

Today's amendments to the Gasoline Distribution NESHAP have no impact on the information collection burden estimates made previously. No additional certifications or filings were promulgated. Therefore, the ICR has not been revised.

B. Executive Order 12866

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the EPA must determine whether a regulation is "significant" and therefore subject to OMB review and the requirements of the Executive Order. The criteria set forth in section 1 of the Order for determining whether a regulation is a significant rule are as follows:

- (1) Is likely to have an annual effect on the economy of \$100 million or more, or adversely and materially affect a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal government communities;
- (2) Is likely to create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- (3) Is likely to materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- (4) Is likely to raise novel or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

The Gasoline Distribution NESHAP promulgated on December 14, 1994, was treated as a "significant regulatory action" within the meaning of the Executive Order. An estimate of the cost and benefits of the NESHAP was prepared at proposal as part of the

background information document (BID) and was updated in the BID for the final rule to reflect comments and changes to the final rule. The amendments issued today have no impact on the estimates in the BID. The EPA's earlier estimates of costs and emission reductions were based on the Gasoline Distribution NESHAP affecting only major sources, and did not quantify the emission reductions associated with the visual equipment leak detection program; in any event, these emission reductions are small relative to the total reduction for the source category.

Pursuant to the terms of Executive Order 12866, it has been determined that this action is a "non-significant regulatory action" within the meaning of the Executive Order. As such, this action was not submitted to OMB for review.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 et seq.) requires the EPA to consider potential impacts of regulations on small business entities. The Act specifically requires the preparation of a Regulatory Flexibility Analysis in those instances where small business impacts are possible. When the EPA promulgated the Gasoline Distribution NESHAP, it analyzed the potential impacts on small businesses, discussed the results of this analysis in the Federal Register, and concluded that the promulgated regulation would not result in financial impacts that significantly or differentially stress affected small companies. Since today's action imposes no additional impacts, a Regulatory Flexibility Analysis has not been prepared.

Pursuant to the provisions of 5 U.S.C. 605(b), I hereby certify that this rule will not have a significant economic impact on a substantial number of small business entities.

D. Unfunded Mandates Act

Under section 202 of the Unfunded Mandates Reform Act of 1995 (Unfunded Mandates Act), signed into law on March 22, 1995, the EPA must prepare a budgetary impact statement to accompany any proposed or final rule that includes a Federal mandate that may result in estimated costs to State, local, or tribal governments in the aggregate, or to the private sector, of \$100 million or more. Under section 205, the EPA must select the most cost

effective and least burdensome alternative that achieves the objectives of the rule and is consistent with statutory requirements. Section 203 requires the EPA to establish a plan for informing and advising any small governments that may be significantly or uniquely impacted by the rule.

The EPA has determined that today's action does not include 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. Therefore, the requirements of the Unfunded Mandates Act do not apply to this action.

E. Regulatory Review

In accordance with sections 112(d)(6) and 112(f)(2) of the Act, this regulation will be reviewed 8 years from the date of promulgation. This review may include an assessment of such factors as evaluation of the residual health risk, any overlap with other programs, the existence of alternative methods of control, enforceability, improvements in emission control technology and health data, and the recordkeeping and reporting requirements.

List of Subjects in 40 CFR Part 63

Environmental protection, Air pollution control, Hazardous substances, Petroleum bulk stations and terminals, Reporting and recordkeeping requirements.

Dated: February 23, 1996.

Carol M. Browner,
Administrator.

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

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

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

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

2. Section 63.424 is amended by revising paragraph (e) to read as follows:

§ 63.424 Standards: Equipment leaks.

(e) Initial compliance with the requirements in paragraphs (a) through (d) of this section shall be achieved by existing sources as expeditiously as

practicable, but no later than December 15, 1997. For new sources, initial compliance shall be achieved upon startup.

3. Section 63.428 is amended by revising paragraph (a), the first sentence of paragraph (f)(1), paragraph (i)(1), and paragraph (j)(1) to read as follows:

§ 63.428 Reporting and recordkeeping.

(a) The initial notifications required for existing affected sources under § 63.9(b)(2) shall be submitted by 1 year after an affected source becomes subject to the provisions of this subpart or by December 16, 1996, whichever is later. Affected sources that are major sources on December 16, 1996 and plan to be area sources by December 15, 1997 shall include in this notification a brief, non-binding description of and schedule for the action(s) that are planned to achieve area source status.

(f) * * *

(1) In the case of an existing source or a new source that has an initial startup date before the effective date, the report shall be submitted with the notification of compliance status required under § 63.9(h), unless an extension of compliance is granted under § 63.6(i).

(i) * * *

(1) Document and report to the Administrator not later than December 16, 1996 for existing facilities, within 30 days for existing facilities subject to § 63.420(c) after December 16, 1996, or at startup for new facilities the methods, procedures, and assumptions supporting the calculations for determining criteria in § 63.420(c);

(j) * * *

(1) Document and report to the Administrator not later than December 16, 1996 for existing facilities, within 30 days for existing facilities subject to § 63.420(d) after December 16, 1996, or at startup for new facilities the use of the emission screening equations in § 63.420(a)(1) or (b)(1) and the calculated value of E_T or E_P ;

4. Table 1 to subpart R is amended by revising the entry "63.9(b)(2)" to read as follows:

TABLE 1 TO SUBPART R.—GENERAL PROVISIONS APPLICABILITY TO SUBPART R

Reference	Applies to subpart R	Comment
63.9(b)(2)	No	Subpart R allows additional time for existing sources to submit initial notification. Sec. 63.428(a) specifies submittal by 1 year after being subject to the rule or December 16, 1996, whichever is later.

[FR Doc. 96-4706 Filed 2-28-96; 8:45 am]
BILLING CODE 5560-50-P

40 CFR Part 82

[FRL-5428-6]

RIN 2060-AF36

Protection of Stratospheric Ozone: Direct-Final Rulemaking Temporarily Extend the Existing Requirements

AGENCY: Environmental Protection
Agency (EPA).

ACTION: Direct final rule.

SUMMARY: Through this action EPA is amending the Clean Air Act section 608 refrigerant recycling regulations to extend the effectiveness of the refrigerant purity requirements of § 82.154 (g) and (h), which are currently scheduled to expire on March 18, 1996, until December 31, 1996, or until EPA completes rulemaking to adopt revised refrigerant purity requirements based on industry guidelines, whichever comes first. EPA is extending the requirements in response to requests from the air-conditioning and refrigeration industry to avoid widespread contamination of the stock of chlorofluorocarbon (CFC) and hydrochlorofluorocarbon (HCFC) refrigerants that could result from the lapse of the purity standard. Such contamination would cause extensive damage to air-conditioning and refrigeration equipment, release of refrigerants, and refrigerant shortages with consequent price increases.

EPA anticipates, before the close of the comment period for this direct final, publishing a proposal to adopt a more flexible approach to ensuring the purity of refrigerants and soliciting public comment on this approach. EPA requests that readers of this notice review that proposal, and consider providing comments.

This temporary extension will not result in any additional burden on the regulated community. Moreover, the retention of the reclamation requirement will protect the environment, public health, and consumers by ensuring that contaminated refrigerants are not vented or charged into equipment.

EFFECTIVE DATE: The direct final rule will become effective on April 15, 1996 unless significant adverse comments are received by April 1, 1996. If significant adverse comments are timely received on this direct final rule, EPA will withdraw the direct final rule and timely notice to that effect will be published in the Federal Register. All comments will then be addressed in a subsequent final rule based on the proposed rule contained in the Proposed Rules section of this Federal Register that is identical to this direct final rule. If no significant adverse comments are timely received on this direct final rule then the direct final rule will become effective 45 days from today's Federal Register notice and no further action is contemplated on the parallel proposal.

ADDRESSES: Comments and materials supporting this rulemaking are contained in Public Docket No. A-92-01, Waterside Mall (Ground Floor) Environmental Protection Agency, 401 M Street SW., Washington, DC 20460 in room M-1500. Dockets may be inspected from 8:00 a.m. until 5:30 p.m., Monday through Friday. A reasonable fee may be charged for copying docket materials. Those wishing to notify EPA of their intent to submit adverse comments on this action should contact Cindy Newberg, Program Implementation Branch, Stratospheric Protection Division, Office of Atmospheric Programs, Office of Air and Radiation (6205-J), 401 M Street SW., Washington, DC 20460, (Docket # A-92-01 VIII.G.) (202) 233-9729.

FOR FURTHER INFORMATION CONTACT: Cindy Newberg, Program Implementation Branch, Stratospheric Protection Division, Office of Atmospheric Programs, Office of Air and Radiation (6205-J), 401 M Street, SW., Washington, DC 20460. The Stratospheric Ozone Information Hotline at 1-800-296-1996 can also be contacted for further information.
SUPPLEMENTARY INFORMATION: The contents of this preamble are listed in the following outline:

- I. Overview
- II. Background

- III. Today's Action
- IV. Effective Date
- V. Summary of Supporting Analysis

I. Overview

Paragraphs 82.154(g) and (h) of 40 CFR part 82, subpart F set requirements for sale of used refrigerant, mandating that it meet certain purity standards. These requirements will expire on March 18, 1996. EPA is currently in the process of promulgating new, more flexible, requirements based on industry guidelines, but will be unable to complete the rulemaking prior to the expiration of the existing standards. A lapse in the standards could result in widespread contamination of the stock of CFC and HCFC refrigerants. Such contamination would cause extensive damage to air-conditioning and refrigeration equipment, release of refrigerants, and refrigerant shortages with consequent price increases. Release of CFC and HCFC refrigerants has been found to deplete stratospheric ozone, resulting in increased human and environmental exposure to ultraviolet radiation. Increased exposure to ultraviolet radiation in turn can lead to serious health and environmental effects.

EPA is acting on requests from the air-conditioning and refrigeration industry to extend the effectiveness of the current refrigerant purity requirements, only until EPA can complete rulemaking to adopt more flexible requirements that will still ensure refrigerant purity.

II. Background

On May 14, 1993, EPA published final regulations establishing a recycling program for ozone-depleting refrigerants recovered during the servicing and disposal of air-conditioning and refrigeration equipment (58 FR 28660). These regulations include evacuation requirements for appliances being serviced or disposed of, standards and testing requirements for used refrigerant sold to a new owner, certification requirements for refrigerant reclaimers, and standards and testing requirements for refrigerant recycling and recovery equipment.

Environmental Protection Agency,
Region 4, Air Programs Branch, 345
Courtland Street, Atlanta, Georgia
30365.

Mississippi Department of
Environmental Quality, Bureau of
Pollution Control, Air Quality
Division, P.O. Box 10385, Jackson,
Mississippi 39289-0385.

Effective immediately, all requests,
applications, reports and other
correspondence required pursuant to
the newly delegated standards should
not be submitted to the Region 4 office,
but should instead be submitted to the
following address: Office of Pollution
Control, Mississippi Department of
Environmental Quality, P.O. Box 10385,
Jackson, Mississippi 39289-0385.

FOR FURTHER INFORMATION CONTACT:
Scott M. Martin, Regulatory Planning
and Development Section, Air Programs
Branch, United States Environmental
Protection Agency, Region 4, 345
Courtland Street N.E., Atlanta, Georgia
30365, (404) 347-3555, x4216.

SUPPLEMENTARY INFORMATION: Section
301, in conjunction with Sections 110
and 111(c)(1) of the Clean Air Act as
amended November 15, 1990,
authorizes EPA to delegate authority to
implement and enforce the standards set
out in 40 CFR Part 60, (NSPS).

On November 10, 1981, EPA initially
delegated the authority for
implementation and enforcement of the
NSPS programs to the state of
Mississippi. On September 29, 1995,
Mississippi requested a delegation of
authority for implementation and
enforcement of the following NSPS
category found in 40 CFR Part 60.

Automobile and Light Duty Truck Surface
Coating Operations, as amended by 59 FR
51383 (October 11, 1994), as specified in 40
CFR 60, Subpart MM.

After a thorough review of the
request, the Regional Administrator
determined that such a delegation was
appropriate for this source category with
the conditions set forth in the original
delegation letter of November 30, 1981.
Mississippi sources subject to the
requirements of this subpart will now be
under the jurisdiction of Mississippi.

Since review of the pertinent
Mississippi laws, rules, and regulations
showed them to be adequate for the
implementation and enforcement of the
aforementioned category of NSPS, the
EPA hereby notifies the public that it
has delegated the authority for the
source category listed above on October
30, 1995. The Office of Management and
Budget has exempted this rule from the
requirements of section 6 of Executive
Order 12866.

Authority: This notice is issued under the
authority of sections 101, 111, and 301 of the
Clean Air Act, as Amended (42 U.S.C. 7401,
7411, and 7601).

Dated: November 22, 1995.

Patrick M. Tobin,

Acting Regional Administrator.

(FR Doc. 95-30553 Filed 12-14-95; 8:45 am)
BILLING CODE 6560-50-P

40 CFR Part 63

[AD-FRL-5335-3]

RIN 2060-AD98

National Emission Standards for Hazardous Air Pollutants for Shipbuilding and Ship Repair (Surface Coating) Operations

AGENCY: Environmental Protection
Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates
national emission standards for
hazardous air pollutants (NESHAP)
under Section 112 of the Clean Air Act
as amended in 1990 (CAA) for
shipbuilding and ship repair (surface
coating) operations. The NESHAP
requires existing and new major sources
to control emissions using the
maximum achievable control
technology (MACT) to control
hazardous air pollutants (HAP).

The MACT described herein is based
on maximum HAP limits for various
categories of marine coatings. Surface
coating operations at shipyards are the
focus of the NESHAP, and a variety of
HAP are used as solvents in marine
coatings. The HAP emitted by the
facilities covered by this final rule
include xylene, toluene, ethylbenzene,
methyl ethyl ketone, methyl isobutyl
ketone, ethylene glycol, and glycol
ethers. All of these pollutants can cause
reversible or irreversible toxic effects
following exposure. The potential toxic
effects include irritation of the eye,
nose, throat, and skin and damage to the
blood cells, heart, liver, and kidneys.
The final rule is estimated to reduce
baseline emissions of HAP by 24
percent or 318.5 megagrams per year
(Mg/yr) (350 tons per year (tpy)).

The emissions reductions achieved by
these standards, combined with the
emissions reductions achieved by
similar standards, will achieve the
primary goal of the CAA, which is to
"enhance the quality of the Nation's air
resources so as to promote the public
health and welfare and productive
capacity of its population". The intent
of this final regulation is to protect the
public health by requiring the maximum

degree of reduction in emissions of
volatile organic hazardous air pollutants
(VOHAP) from new and existing
sources, taking into consideration the
cost of achieving such emission
reduction, any nonair quality, health
and environmental impacts, and energy
requirements.

DATES: The effective date is December
15, 1995. Incorporation by reference of
certain publications listed in the
regulations is approved by the director,
of the Federal Register as of December
15, 1995.

ADDRESSES: *Background Information
Document.* The background information
document (BID) for the promulgated
standards may be obtained from the U.S.
Department of Commerce, National
Technical Information Service (NTIS),
Springfield, Virginia, 22161, telephone
number (703) 487-4650. Please refer to
"National Emission Standards for
Hazardous Air Pollutants for
Shipbuilding and Ship Repair Facilities
(Surface Coating)—Background
Information Document for Final
Standards," EPA-453/R-95-016b. The
BID contains (1) a summary of the
changes made to the standards since
proposal and (2) a summary of all the
public comments made on the proposed
standards and the Administrator's
response to the comments.

Electronic versions of the
promulgation BID as well as this final
rule are available for download from the
EPA's Technology Transfer Network
(TTN), a network of electronic bulletin
boards developed and operated by the
Office of Air Quality Planning and
Standards. The TTN provides
information and technology exchange in
various areas of air pollution control.
The service is free, except for the cost
of a phone call. Dial (919) 541-5742 for
data transfer of up to a 14,400 bits per
second. If more information on TTN is
needed, contact the systems operator at
(919) 541-5384.

Docket. Docket No. A-92-11,
containing supporting information used
in developing the promulgated
standards, is available for public
inspection and copying from 8 a.m. to
5:30 p.m., Monday through Friday, at
the EPA's Air and Radiation Docket and
Information Center, Waterside Mall,
Room M-1500, Ground Floor, 401 M
Street SW, Washington, DC 20460. A
reasonable fee may be charged for
copying.

FOR FURTHER INFORMATION CONTACT: Dr.
Mohamed Serageldin at (919) 541-2379,
Emission Standards Division (MD-13),
U.S. Environmental Protection Agency,
Research Triangle Park, North Carolina
27711.

SUPPLEMENTARY INFORMATION: Under Section 307(b)(1) of the CAA, judicial review of NESHAP is available only by the filing of a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days of publication of this rule. Under Section 307(b)(2) of the CAA, the requirements that are the subject of this action may not be challenged later in civil or criminal proceedings brought by the EPA to enforce these requirements.

The information presented in this preamble is organized as follows:

- I. Regulatory Background and Purpose
- II. The Standards
- III. Summary of Impacts
- IV. Significant Changes to the Proposed Standards
 - A. Public Participation
 - B. Comments on the Proposed Standards
 - C. Significant Comments/Changes
- V. Control Techniques Guidelines (CTG)
- VI. Administrative Requirements
 - A. Docket
 - B. Paperwork Reduction Act
 - C. Executive Order 12866
 - D. Executive Order 12875
 - E. Regulatory Flexibility Act
 - F. Unfunded Mandates Act of 1995

I. Regulatory Background and Purpose

Section 112 of the CAA requires the EPA to evaluate and control HAP emissions. The control of HAP is to be achieved through promulgation of emission standards under Sections 112(d) and (f), and of work practice standards under Section 112(h) where appropriate, for categories of sources that emit HAP. Pursuant to Section 112(c) of the CAA, the EPA published in the *Federal Register* the initial list of source categories that emit HAP on July 16, 1992 (57 FR 31576). This list includes major and area sources of HAP for which the EPA intends to issue regulations between November 1992 and November 2000.

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 productive capacity of its population" 42 U.S.C. § 7401(b). This final regulation will protect the public health by reducing emissions of HAP from surface coating operations at shipbuilding and ship repair facilities (shipyards).

Many shipyards are major sources of HAP emissions, emitting over 23 Mg/yr (25 tpy) of organic HAP, including toluene, xylene, ethylbenzene, methanol, methyl ethyl ketone, methyl isobutyl ketone, ethylene glycol and glycol ethers. All of these pollutants can cause reversible or irreversible toxic effects following exposure. The potential toxic effects include irritation of the eyes, nose, throat, and skin,

irritation and damage to the blood cells, heart, liver, and kidneys. These adverse health effects are associated with a wide range of ambient concentrations and exposure times and are influenced by source-specific characteristics such as emission rates and local meteorological conditions. Health impacts are also dependent on multiple factors that affect human variability, such as genetics, age, health status (e.g., the presence of pre-existing disease), and lifestyle.

The final standards will reduce VOHAP emissions from shipyard surface coating operations by 318.5 Mg/yr (350 tpy) from a baseline level of 1,362 Mg/yr (1,497 tpy). No significant economic impacts are associated with the final standards. No firms or facilities are at risk of closure as a result of the final standards, and there will not be a significant economic impact on a substantial number of small entities.

II. The Standards

The final rule is applicable to all existing and new shipbuilding and repair facilities that are major sources of HAP or are located at plant sites that are major sources. Major source facilities that are subject to this rule must not apply any marine coating with a VOHAP content in excess of the applicable limit and must implement the work practices required in the rule. Section 112(a) of the CAA defines major source as a source, or group of sources, located within a contiguous area and under common control that emits or has the potential to emit, considering controls, 9.1 Mg/yr (10 tpy) or more of any individual HAP or 22.7 Mg/yr (25 tpy) or more of any combination of HAP. Area sources are stationary sources that do not qualify as "major." The term "affected source" as used in this rule means the total of all HAP emission points at each shipbuilding and ship repair facility that is subject to the rule. "Potential to emit" is defined in the Section 112 General Provisions (40 CFR 63.2) as "the maximum capacity of a stationary source to emit a pollutant under its physical or operational design."

To determine the applicability of this rule to facilities that are within a contiguous area of other HAP-emitting emission sources that are not part of the source category covered by this rule, the owner or operator must determine whether the plant site as a whole is a major source. A formal HAP emissions inventory must be used to determine if total HAP emissions from all HAP emission sources at the plant site meets the definition of a major source. The actual emissions of HAP from most

shipyards are substantially less than the major source cutoff limits (i.e., 9.1 Mg/yr (10 tpy) of any single HAP, or 22.8 Mg/yr (25 tpy) of all HAP combined). If the source becomes a synthetic minor source through accepting enforceable restrictions that ensure potential and actual HAP emissions will be below the major source cutoffs, the NESHAP does not apply. See promulgation BID Section 2.4 for additional details and the associated recordkeeping provisions (see ADDRESSES section of this preamble).

Existing major sources may switch to area source status by obtaining and complying with a federally enforceable limit on their potential to emit prior to the "compliance date" of the regulation. The "compliance date" for this regulation is defined as December 16, 1996. New major sources are required to comply with the NESHAP requirements upon start up or the promulgation date, whichever is later. Existing major sources may switch to area source status by obtaining and complying with a federally enforceable limit on their potential to emit that makes the facility an area source prior to the "compliance date" of the regulation. The compliance date for this regulation is December 16, 1996. A facility that has not obtained federally enforceable limits on its potential to emit by the compliance date, and that has not complied with the NESHAP requirements, will be in violation of the NESHAP. New major sources are required to comply with the NESHAP requirements upon start-up or the promulgation date, whichever is later. All sources that are major sources for HAP on the compliance date are required to comply permanently with the NESHAP to ensure that the maximum achievable reductions in toxic emissions are achieved and maintained. All major sources for HAP on the "compliance date" are required to comply permanently with the NESHAP to ensure that the maximum achievable reductions in toxic emissions are achieved and maintained.

The final standards impose limits on the VOHAP content of 23 types of coatings used at shipyards. Compliance with the VOHAP limits must be demonstrated on a monthly basis. The promulgated standards include four compliance options to allow owners or operators flexibility in demonstrating compliance with the VOHAP limits. The final standards also allow for an alternative means of compliance other than using compliant coatings, if approved by the Administrator. The Administrator shall approve the alternative means of limiting emissions if, in the Administrator's judgment,

(after control) emissions of VOHAP per volume solids applied will be no greater than those from the use of coatings that comply with the applicable VOHAP limits.

The final standards also require that all handling and transfer of VOHAP containing materials to and from containers, tanks, vats, vessels, and piping systems be conducted in a manner that minimizes spills and other factors leading to emissions. (This requirement includes hand- or brush-application of coatings.) In addition, containers of thinning solvent or waste that hold any VOHAP must be normally closed (to minimize evaporation) unless materials are being added to or removed from them.

Owners or operators of existing shipbuilding and ship repair (surface coating) operations subject to the requirements promulgated under Section 112(d) of the CAA are required to comply with the standards within 1 year from December 15, 1995. Owners or operators of new shipbuilding and ship repair (surface coating) operations with initial startup before or after December 15, 1996 are required to comply with all requirements of the standards upon startup. The first requirement is the initial notification due 6 months before start up.

III. Summary of Impacts

These standards will reduce nationwide emissions of HAP from shipbuilding and ship repair (surface coating) operations by approximately 318.5 Mg (350 tons) in 1997 compared to the emissions that would result in the absence of the standards. These standards will also reduce volatile organic compounds (VOC) emissions from those same shipbuilding and ship repair (surface coating) operations by approximately 837 Mg (920 tons) in 1997 compared to the emissions that would result in the absence of the standards. No significant adverse secondary air, water, solid waste, or energy impacts are anticipated from the promulgation of these standards.

Implementation of this regulation is expected to result in nationwide annualized costs for existing shipyards of about \$2 million beyond baseline. This estimation is based on an analysis of the application of VOHAP limits on marine coatings at all existing major source facilities not currently controlled to the level of the standards.

The economic impact analysis conducted prior to proposal showed that the economic impacts from the proposed standard would be insignificant. An update of the economic impact analysis (due to

revisions to the final rule) indicates that the original conclusion still holds true. Implementation of the rule is not expected to cause significant economic impacts for the 35 major source facilities in this industry.

IV. Significant Changes to the Proposed Standards

A. Public Participation

The standards were proposed and the preamble was published in the *Federal Register* on December 6, 1994 (59 FR 62681). The preamble to the proposed standards discussed the availability of the regulatory text and proposal BID, which described the regulatory alternatives considered and the impacts of those alternatives. Public comments were solicited at the time of proposal, and copies of the regulatory text and BID were distributed to interested parties. Electronic versions of the preamble, regulation, and BID were made available to interested parties via the TTN (see SUPPLEMENTARY INFORMATION section of this preamble).

To provide interested persons the opportunity for oral presentation of data, views, or arguments concerning the proposed standards, a public hearing was held on January 18, 1995 in Research Triangle Park, North Carolina. The public comment period was from December 6, 1994 to February 17, 1995. In all, 22 comment letters were received (including one duplicate). The comments have been carefully considered, and changes have been made to the proposed standards when determined by the Administrator to be appropriate.

B. Comments on the Proposed Standards

Comments on the proposed standards were received from 22 commenters; the commenters were comprised mainly of States, shipyard owners or operators, marine coating manufacturers, environmental groups, and trade associations. A detailed discussion of these comments and responses can be found in the promulgation BID, which is referred to in the ADDRESSES section of this preamble. The summary of comments and responses in the BID serve as the basis for the revisions that have been made to the standards between proposal and promulgation. (Some additional changes have been made to clarify the standards and improve their organization.) Most of the comment letters contained multiple comments. For summary purposes, the comments were grouped into several topic areas.

C. Significant Comments/Changes

Several changes have been made since the proposal of these standards. The majority of the changes have been made to clarify portions of the rule that were unclear to the commenters. A summary of the major comments and changes is presented below.

(1) Applicability to Coating Manufacturers

Several commenters asked the EPA to regulate the manufacture and sale of marine coatings rather than the end users (shipyards). While this approach has some obvious advantages, the EPA does not have authority to regulate (with this NESHAP) the manufacture and sale of coatings under Section 112(d). The EPA plans to address requirements for coating manufacturers under Section 183(e) of the CAA by March 1997 through either a national rule or a control techniques guidelines (CTG).

(2) Number of Major Sources/MACT Floor

Some commenters thought the EPA underestimated the number of major source shipyards, and thereby erred in the MACT floor determination. Although the EPA based the proposed number of major sources on the best available information at the time, there has been recent additional information provided by the Louisiana Department of Environmental Quality (Louisiana having more shipyards than any other State) showing there are four other shipyards with HAP emissions greater than the major source cutoffs. At the same time, however, the same additional information indicated that one of the shipyards identified in the original list of 25 has HAP emissions well below the major source cutoffs (based on recent operating permit data).

This information along with other State permit data on annual paint usage and VOC/VOHAP emissions indicates that there are 35 major sources, instead of the estimated 25 discussed in the proposal preamble. Even though 10 additional major sources have been identified, the MACT floor would not change. At proposal, the EPA based the MACT floor on the control achieved by the best-performing 5 sources, as required by Section 112 (d)(3) of the CAA when there are less than 30 sources in the category. If there are 35 sources in the category, the MACT floor would be based on the best-performing 4.2 sources (12 percent of the 35) as required by Section 112 (d)(3). Under both situations, the MACT floor is the same.

Another point to be considered is that even if there are 45 major source

shipyards, the best 12 percent is still represented by the best $0.12 \times 45 = 5.4$ or best 5 yards. Both the MACT floor and the associated marine coating VOHAP limits would be identical. Since the NESHAP proposal date, the Navy has adopted VOC limits identical to (or more stringent than) the 1992 California limits for all Naval shipyards and Navy-related work. Since at least two of the Naval shipyards qualify as major sources, if the MACT floor were to be recalculated today, the limits would be identical to the proposed (and promulgated) limits, regardless of the approach used to determine the mean or median level of control. The Louisiana limits, which are less stringent for the major use categories of coatings, would not enter into any of the floor calculations.

Recent indications from the Navy and other industry representatives reveal that fewer affected sources exist today because of base closings and consolidation efforts. The original estimation of 25 major source shipyards was based on annual paint and solvent usage, type of work conducted (new construction versus repair), number of employees, and type (size) of vessels serviced. The (weighted) average HAP concentration of all marine coatings is an integral part of emissions estimates and determining if a shipyard qualifies as a major source facility. Other HAP-emitting processes at most shipyards such as welding, metal forming/cutting, and abrasive blasting exist, but the vast majority of HAP emissions come from organic solvents used in marine paints and solvents used for thinning and cleaning.

(3) Elimination of Compliance Option 1

Proposed compliance option 1 required that each and every container of coating be tested or certified prior to application. Based on comments pertaining to its impracticality and the unrealistic costs associated with testing/certifying every container of coating, compliance option 1 was eliminated from the final rule. The flow diagram (included as Figure 1 in the regulation) summarizing the various compliance options was similarly revised and simplified.

(4) Training Requirements

In the proposed rule, the EPA required training and certification for all personnel involved with paints and/or solvents. There were several comments regarding the inappropriate amount and level of detail involved with the training and annual personnel certifications. Some commenters indicated that there was a high turnover rate involving

personnel, and the proposed training requirements would impose a significant impact for very little reduction in HAP emissions. The EPA has determined that it is appropriate to leave the details of training to the individual shipyards who can best define the real needs of their specific locations and applications. Affected sources are responsible for complying with the standards, and it is in their own best interest to ensure that workers are aware of the associated requirements. Therefore, all training requirements related to painting/thinning, handling/transfer of VOHAP-containing materials, and certification of all personnel involved with surface coating operations have been eliminated from the final rule.

(5) Definition of Pleasure Craft

A definition of pleasure craft has been added to ensure that the standards apply only to those coatings (and solvents) used on commercial and military vessels. Some commenters were concerned that, as proposed, the rule could be interpreted to regulate coatings used on pleasure crafts. Other commenters suggested that pleasure crafts should be included. The EPA did not intend to include coatings used on pleasure crafts in these standards. Such coatings (applications) will be considered under the development of the Boat Manufacturing NESHAP.

(6) Definition of Affected Source

The definition of affected source was modified to ensure that the requirements of the standards apply only to those sources (major source shipyards) with a minimum annual marine coating usage of 1,000 L (264.2 gal). The primary focus of this NESHAP is surface coating operations and this clarification will minimize/eliminate the impact on shipyards with minimal surface coating emissions.

(7) Reporting and Notification Changes

Changes have also been made to the notification and reporting schedules. The initial notification deadline has been extended from 120 to 180 days. The frequency of reporting has also been reduced from the proposed quarterly requirement to semiannual. This change was made to allow shipyards to be consistent with current/upcoming Title V permit requirements. The first compliance certification report is due 6 months after the compliance date.

(8) Exemptions

Several commenters recommended that the EPA adopt some of the exemptions provided in various State

regulations. Since the MACT floor was based on three shipyards located in California and those yards have exemptions similar to those requested, the EPA determined there would be no significant impact and adopted the following exemptions:

- a. Any individual coating with annual usage less than 200 liters (52.8 gallons) is exempt from the requirements of the standards (i.e., the applicable VOHAP limit). The total amount of all coatings exempted in any given year cannot exceed 1,000 liters (264.2 gallons); and
- b. Any coating applied via nonrefillable hand-held aerosol cans is exempt from the requirements of the standards.

(9) Revision of Equations

The equations used with compliance options 2 and 3 (proposed options 3 and 4) have been changed so that calculations are based on volume solids. The revised equations require the VOHAP limits based on volume solids be used in place of the VOHAP limits based on volume of coating less water and non-HAP exempt solvents. This change was made to provide a uniform basis for calculating emission reductions (i.e., associated with thinning additions or add-on control devices).

(10) Weather-related VOHAP limits

The proposal preamble requested comments on how to handle thinning issues for various climatic conditions. The EPA reviewed the comments and collected additional information on both cold-and hot/humid-weather thinning practices. As a result of this information, cold-weather VOHAP limits are included as part of the final rule. If the temperature is below 4.5°C (40°F) at the time the coating is applied and the source needs to thin that coating beyond the applicable VOHAP limit, the date, time, and temperature (including units) must be documented, and the applicable cold-weather VOHAP limit may be used. The cold-weather VOHAP limits on a solids basis were increased equivalently, but the actual values vary for each coating category. The cold-weather VOHAP limits are applicable only to as-supplied coatings that are greater than 40 percent solids by volume.

With regards to hot/humid weather conditions, the data and responses to Section 114 information requests sent by EPA to nine shipyards and other information received did not provide a basis for including a humid weather thinning allowance. Respondents identified meteorological conditions under which coatings must be thinned

or not applied at all. Only one shipyard, which uses large quantities of water-based preconstruction primer, maintained that a humid weather thinning allowance should be adopted. However, the shipyard did not explain how hydrocarbon-based thinners would relate to its water-based operation.

Hot and humid weather conditions appear to inhibit coating operations work less frequently than does cold weather. The different responses can best be understood as they relate to the specifications for thinning under different climatic conditions, which are dependent on paint type and manufacturer. Some coating formulations lose at high temperature more organic solvent than others which could lead to thickening (increase in viscosity) of the paint. This occurs where the rate of application is low and paint containers remain uncovered. Nevertheless, beginning in September 1994, shipyards performing work for the Navy in humid climates such as Louisiana, Florida, and Virginia are required by the Navy to use paints with VOHAP contents levels that are in compliance with the limits in the NESHAP, without provision for additional thinning. There is no reason that VOHAP limits that are achievable for paints used by the Navy cannot also be achieved for paints used by commercial shipyards located in humid climates and that, therefore, a thinning allowance for hot/humid weather conditions is not necessary. If conditions necessitate application of small amount of noncompliant coatings, the regulation provides a low usage exemption of 1,000 liters of coating per year.

D. Minor Changes

This section contains a list of several of the minor changes to the final rule. A discussion of these changes can be found in the promulgation BID. (See ADDRESSES section of this preamble.)

(1) Revisions to definitions and phrasing have been made to clarify the regulation.

(2) Based on comments received and on changes to the notification and recordkeeping and reporting requirements, those sections of the standard have been reorganized and overlapping requirements clarified or eliminated.

(3) Table 2, which contains the VOHAP limits for the various coating categories, has been simplified to contain only one set of units (metric). The conversion factor for English units is included as a footnote to the table.

V. Control Techniques Guidelines (CTG)

Section 183(b)(4) of the CAA requires the Administrator to issue a CTG document for limiting VOC and particulate matter emissions from coatings (paints) and solvents used in the shipbuilding and ship repair industry. Since VOHAP emissions from this industry are generally a subset of VOC emissions, the control techniques evaluated for the MACT standard are also applicable to VOC emissions. Therefore, the EPA has developed the CTG concurrently with the NESHAP and will be issuing final guidance under a separate notice. As explained in the proposal notice (AD-FR-), no CTG is being issued for particulate matter emissions.

VI. Administrative Requirements

A. Docket

The Docket is an organized and complete file of all the information considered by the EPA in the development of this rulemaking. The Docket is a dynamic file, since material is added throughout the rulemaking development. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the statement of basis and purpose of the proposed and promulgated standards and the EPA responses to significant comments, the contents of the Docket will serve as the record in case of judicial review [see 42 U.S.C. 7607(d)(7)(A)].

B. Paperwork Reduction Act

The Office of Management and Budget (OMB) is currently reviewing the information collection request (ICR) requirements contained in this rule under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* and has assigned OMB control number 2060-0330 and EPA ICR number 1712.2.

The information required to be collected by this rule is needed as part of the overall compliance and enforcement program. It is necessary to identify the regulated entities who are subject to the rule and to ensure their compliance with the rule. The recordkeeping and reporting requirements are mandatory and are being established under authority of Section 114 of the Act. All information submitted to the EPA for which a claim of confidentiality is made will be safeguarded according to the EPA policies set forth in Title 40, Chapter 1, Part 2, Subpart B—Confidentiality of

Information (see 40 CFR part 2; 41 FR 36902, September 1, 1976; amended by 43 FR 39999, September 8, 1978; 43 FR 42251, September 28, 1978; 44 FR 17674, March 23, 1979).

The total annual reporting and recordkeeping burden for this collection averaged over the first 3 years is estimated to be \$26,218 per year. The average burden, per respondent, is 772 hours per year. This estimate 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. 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. The rule requires an initial one-time notification from each respondent and subsequent notification every 6 months to indicate their compliance status. At the time of the initial notification each respondent would also be required to submit an implementation plan that describes compliance procedures. A respondent would also be required to keep necessary records of data to determine compliance with the standards in the regulation. The data would be recorded monthly. A report would need to be submitted semi-annually by each respondent. There would be an estimated 35 respondents to the proposed collection requirements.

Send comments on the EPA's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, OPPE

Regulatory Information Division; U. S. Environmental Protection Agency (2136); 401 M Street SW.; Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street NW.; Washington, DC 20503; marked "Attention: Desk Officer for EPA." Include the OMB number and the EPA ICR number in any correspondence.

**C. Executive Order 12866:
Administrative Designation and
Regulatory Analysis**

Under Executive Order 12866 [58 FR 51735 (October 4, 1993)], the EPA is required to judge whether a regulation is "significant" and therefore subject to OMB review and the requirements of this Executive Order to prepare a regulatory impact analysis (RIA). The 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 this rule is not a "significant regulatory action" and is therefore not subject to OMB review.

D. Executive Order 12875

To reduce the burden of federal regulations on States and small governments, the President issued Executive Order 12875 on October 26, 1993, entitled Enhancing the Intergovernmental Partnership. In particular, this executive order is designed to require agencies to assess the effects of regulations that are not required by statute and that create mandates upon State, local, or tribal governments. Two methods exist for complying with the requirements of the executive order: (1) Assure that funds necessary to pay direct costs of compliance with a regulation are provided, or (2) provide OMB a description of the communications and consultations with State/local/tribal governments, the nature of their

concerns, any written submission from them, and the EPA's position supporting the need to issue the regulation.

The EPA has always been concerned about the effect of the cost of regulations on small entities; the EPA has consulted with and sought input from public entities to explain costs and burdens they may incur.

The EPA advised interested parties on July 16, 1992 (57 FR 21592), of the categories considered as major and area sources of HAP, and shipbuilding and ship repair (surface coating) industry was listed as a category of both major and area sources. The EPA made significant effort to hear from all levels of interest and all segments of the shipbuilding and ship repair industry. To facilitate comments and input, the EPA conducted comprehensive mailouts of draft and proposal package materials in 1993 and 1994 to shipyards, Department of the Navy (Naval Sea Systems Command), marine coating manufacturers, and State and local government officials. All were given opportunity to comment on the presented regulatory development activities of the standard. Throughout the regulatory development process and more specifically in consultation meetings, industry representatives from commercial/private shipyards, the U.S. Navy, and various trade associations were given an opportunity to comment on the proposed regulatory approach and the MACT alternatives being developed. The major topic areas resulting from these discussions included the need for cold-weather thinning limits, flexibility in compliance approaches, and the need for additional data regarding certain coating categories (i.e., inorganic zincs). Some of these meetings were held at EPA, while others were conducted at shipyard locations. In addition, individual consultations were conducted with three local (air quality management) districts in California regarding the use of the mass of VOHAP/volume of solids for determining compliance when the coating is thinned.

The EPA addressed many of the suggestions and comments received from State and local agencies during the public comment period, many of which will reduce the impact to small businesses. Some of these suggestions resulted in changes to the rule, including modification of the definition of pleasure craft to clarify that the standards apply only to coatings (and solvents) used on commercial and military vessels and not to boats in non-military shipyards less than 20 meters in length; modification of the definition

of affected source to ensure that the requirements of the standards apply only to those sources (major source shipyards) with a minimum annual marine coating usage of 1,000 Liters (264.2 gallons); exemption of any individual coating with annual usage less than 200 liters (52.8 gallons) (i.e., the applicable VOHAP limit); exemption of any coating applied via nonrefillable hand-held aerosol cans; making the equations used to determine thinning allowance the same for all options to provide a uniform basis for calculating emission reductions (i.e., associated with thinning additions or add-on control devices); extension of the initial notification deadline from 120 to 180 days and reduction of the frequency of reporting from the proposed quarterly requirement to semiannual, which allows shipyards to be consistent with current/upcoming Title V permit requirements; reorganization and clarification of the notification and recordkeeping and reporting requirement, including revision of the definitions and phrasing to ensure that the terminology is understandable; and the addition of 10 major sources based on data provided by Louisiana and Texas State agencies.

Some of the other major concerns that were noted in the State and/or local agency comments and that were considered by the EPA in developing the proposed and final rule involved realistic work practice standards, multiple compliance options to provide flexibility for shipyard owners/operators and State regulators, and streamlining (or eliminating) any overlapping recordkeeping and reporting requirements. Documentation of all meetings and public comments can be found in Docket A-92-11.

The EPA has considered the purpose and intent of Executive Order 12875 and has determined that shipbuilding and ship repair facility NESHAP are needed. The rule is generally required by statute under Section 112 of the CAA because shipbuilding and ship repair facilities emit significant quantities of air pollutants. Through meetings and consultations during project development and proposal, efforts were made to inform entities of the costs required to comply with the regulation; in addition, modifications were made to reduce the burden to small entities.

E. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires the EPA to consider potential impacts of proposed regulations on small business "entities." If a preliminary analysis indicates that a proposed regulation would have a

significant economic impact on 20 percent or more of small entities, then a regulatory flexibility analysis must be prepared. The EPA's analysis of these impacts was provided in the preamble to the proposed rule (59 FR 62681) and no negative impacts for small businesses will result from the changes incorporated into the final rule.

Pursuant to the provisions of 5 U.S.C. 605(b), I hereby certify that this rule will not have a significant economic impact on a substantial number of small business entities.

F. Unfunded Mandates 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, 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 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 action promulgated today does not include 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. Therefore, the requirements of the Unfunded Mandates Act do not apply to this action.

List of Subjects in 40 CFR Part 63

Environmental protection, Air pollution control, Incorporation by reference, Marine coating limits, Reporting and recordkeeping requirements, Shipbuilding and ship repair standards.

Dated: November 14, 1995.

Carol M. Browner,
Administrator.

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—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SHIPBUILDING AND SHIP REPAIR (SURFACE COATING)

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

Authority: Sections 101, 112, 114, 116, and 301 of the Clean Air Act (42 U.S.C. 7401 *et seq.*, as amended by Pub. L. 101-549, 104 Stat. 2399).

2. Section 63.14 is amended by adding paragraph (b)(4) through (b)(14) to read as follows:

§ 63.14 Incorporation by reference.

(b) * * *

(4) ASTM D523-89, Standard Test Method for Specular Gloss, IBR approved for § 63.782.

(5) ASTM D1475-90, Standard Test Method for Density of Paint, Varnish, Lacquer, and Related Products, IBR approved for § 63.788 appendix A.

(6) ASTM D2369-93, Standard Test Method for Volatile Content of Coatings, IBR approved for § 63.788 appendix A.

(7) ASTM D3912-80, Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(8) ASTM D4017-90, Standard Test Method for Water and Paints and Paint Materials by Karl Fischer Method, IBR approved for § 63.788 appendix A.

(9) ASTM D4082-89, Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(10) ASTM D4256-89 [reapproved 1994], Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(11) ASTM D3792-91, Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for § 63.788 appendix A.

(12) ASTM D3257-93, Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography, IBR approved for § 63.786(b).

(13) ASTM E260-91, Standard Practice for Packed Column Gas Chromatography, IBR approved for § 63.786(b).

(14) ASTM E180-93, Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals, IBR approved for § 63.786(b).

3. Part 63 is amended by adding subpart II to read as follows:

Subpart II—National Emission Standards for Shipbuilding and Ship Repair (Surface Coating)

Secs.

63.780 Relationship of subpart II to subpart A of this part.

63.781 Applicability.

63.782 Definitions.

63.783 Standards.

63.784 Compliance dates.

63.785 Compliance procedures.

63.786 Test methods and procedures.

63.787 Notification requirements.

63.788 Recordkeeping and reporting requirements.

Table 1 to Subpart II of Part 63—General Provisions of Applicability to Subpart II
Table 2 to Subpart II of Part 63—Volatile Organic HAP (VOHAP) Limits for Marine Coatings

Table 3 to Subpart II of Part 63—Summary of Recordkeeping and Reporting Requirements

Appendix A to Subpart II of Part 63—VOC Data Sheet

Appendix B to Subpart II of Part 63—Maximum Allowable Thinning Rates As a Function of As Supplied VOC Content and Thinner Density

Subpart II—National Emission Standards for Shipbuilding and Ship Repair (Surface Coating)

§ 63.780 Relationship of subpart II to subpart A of this part.

Table 1 of this subpart specifies the provisions of subpart A of this part that apply to owners and operators of sources subject to the provisions of this subpart.

§ 63.781 Applicability.

(a) The provisions of this subpart apply to shipbuilding and ship repair operations at any facility that is a major source.

(b) The provisions of this subpart do not apply to coatings used in volumes of less than 200 liters (52.8 gallons) per

year, provided the total volume of coating exempt under this paragraph does not exceed 1,000 liters per year (264 gallons per year) at any facility. Coatings exempt under this paragraph shall be clearly labeled as "low-usage exempt," and the volume of each such coating applied shall be maintained in the facility's records.

(c) The provisions of this subpart do not apply to coatings applied with hand-held, nonrefillable, aerosol containers or to unsaturated polyester resin (i.e., fiberglass lay-up) coatings. Coatings applied to suitably prepared fiberglass surfaces for protective or decorative purposes are subject to this subpart.

(d) The provisions in subpart A of this part pertaining to startups, shutdowns, and malfunctions and continuous monitoring do not apply to this source category unless an add-on control system is used to comply with this subpart in accordance with § 63.783(c).

§ 63.782 Definitions.

Terms used in this subpart are defined in the Clean Air Act (CAA), in subpart A of part 63, or in this section as follows:

Add-on control system means an air pollution control device such as a carbon absorber or incinerator that reduces pollution in an air stream by destruction or removal prior to discharge to the atmosphere.

Affected source means any shipbuilding or ship repair facility having surface coating operations with a minimum 1,000 liters (L) (264 gallons [gal]) annual marine coating usage that is subject to this subpart.

Air flask specialty coating means any special composition coating applied to interior surfaces of high pressure breathing air flasks to provide corrosion resistance and that is certified safe for use with breathing air supplies.

Antenna specialty coating means any coating applied to equipment through which electromagnetic signals must pass for reception or transmission.

Antifoulant specialty coating means any coating that is applied to the underwater portion of a vessel to prevent or reduce the attachment of biological organisms and that is registered with the EPA as a pesticide under the Federal Insecticide, Fungicide, and Rodenticide Act.

As applied means the condition of a coating at the time of application to the substrate, including any thinning solvent.

As supplied means the condition of a coating before any thinning, as sold and delivered by the coating manufacturer to the user.

Batch means the product of an individual production run of a coating manufacturer's process. A batch may vary in composition from other batches of the same product.

Bitumens mean black or brown materials that are soluble in carbon disulfide and consist mainly of hydrocarbons.

Bituminous resin coating means any coating that incorporates bitumens as a principal component and is formulated primarily to be applied to a substrate or surface to resist ultraviolet radiation and/or water.

Certify means, in reference to the volatile organic compounds (VOC) content or volatile organic hazardous air pollutants (VOHAP) content of a coating, to attest to the VOC content as determined through analysis by Method 24 of appendix A to 40 CFR part 60 or through use of forms and procedures outlined in appendix A of this subpart, or to attest to the VOHAP content as determined through an Administrator-approved test method. In the case of conflicting results, Method 24 of Appendix A to 40 CFR part 60 shall take precedence over the forms and procedures outlined in appendix A to this subpart for the options in which VOC is used as a surrogate for VOHAP.

Coating means any material that can be applied as a thin layer to a substrate and which cures to form a continuous solid film.

Cold-weather time period means any time during which the ambient temperature is below 4.5°C (40°F) and coating is to be applied.

Container of coating means the container from which the coating is applied, including but not limited to a bucket or pot.

Cure volatiles means reaction products which are emitted during the chemical reaction which takes place in some coating films at the cure temperature. These emissions are other than those from the solvents in the coating and may, in some cases, comprise a significant portion of total VOC and/or VOHAP emissions.

Epoxy means any thermoset coating formed by reaction of an epoxy resin (i.e., a resin containing a reactive epoxide with a curing agent).

Exempt compounds means specified organic compounds that are not considered VOC due to negligible photochemical reactivity. Exempt compounds are specified in 40 CFR 51.100(s).

Facility means all contiguous or adjoining property that is under common ownership or control, including properties that are separated

only by a road or other public right-of-way.

General use coating means any coating that is not a specialty coating.

Hazardous air pollutants (HAP) means any air pollutant listed in or pursuant to section 112(b) of the CAA.

Heat resistant specialty coating means any coating that during normal use must withstand a temperature of at least 204°C (400°F).

High-gloss specialty coating means any coating that achieves at least 85 percent reflectance on a 60 degree meter when tested by ASTM Method D523 (incorporation by reference—see § 63.14).

High-temperature specialty coating means any coating that during normal use must withstand a temperature of at least 426°C (800°F).

Inorganic zinc (high-build) specialty coating means a coating that contains 960 grams per liter (8 pounds per gallon) or more elemental zinc incorporated into an inorganic silicate binder that is applied to steel to provide galvanic corrosion resistance. (These coatings are typically applied at more than 2 mil dry film thickness.)

Major source means any source that emits or has the potential to emit, in the aggregate, 9.1 megagrams per year (10 tons per year) or more of any HAP or 22.7 megagrams per year (25 tons per year) or more of any combination of HAP.

Maximum allowable thinning ratio means the maximum volume of thinner that can be added per volume of coating without violating the standards of § 63.783(a), as determined using Equation 1 of this subpart.

Military exterior specialty coating or Chemical Agent Resistant Coatings ("CARC") means any exterior topcoat applied to military or U.S. Coast Guard vessels that are subject to specific chemical, biological, and radiological washdown requirements.

Mist specialty coating means any low viscosity, thin film, epoxy coating applied to an inorganic zinc primer that penetrates the porous zinc primer and allows the occluded air to escape through the paint film prior to curing.

Navigational aids specialty coating means any coating applied to Coast Guard buoys or other Coast Guard waterway markers when they are recoated aboard ship at their usage site and immediately returned to the water.

Nonskid specialty coating means any coating applied to the horizontal surfaces of a marine vessel for the specific purpose of providing slip resistance for personnel, vehicles, or aircraft.

Nonvolatiles (or volume solids) means substances that do not evaporate readily. This term refers to the film-forming material of a coating.

Normally closed means a container or piping system is closed unless an operator is actively engaged in adding or removing material.

Nuclear specialty coating means any protective coating used to seal porous surfaces such as steel (or concrete) that otherwise would be subject to intrusion by radioactive materials. These coatings must be resistant to long-term (service life) cumulative radiation exposure (ASTM D4082-89 [incorporation by reference—see § 63.14]), relatively easy to decontaminate (ASTM D4256-89 [reapproved 1994] [incorporation by reference—see § 63.14]), and resistant to various chemicals to which the coatings are likely to be exposed (ASTM D3912-80 [incorporation by reference—see § 63.14]). (For nuclear coatings, see the general protective requirements outlined by the U.S. Nuclear Regulatory Commission in a report entitled "U.S. Atomic Energy Commission Regulatory Guide 1.34" dated June 1973, available through the Government Printing Office at (202) 512-2249 as document number A74062-00001.)

Operating parameter value means a minimum or maximum value established for a control device or process parameter that, 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 emission limitation or standard.

Organic zinc specialty coating means any coating derived from zinc dust incorporated into an organic binder that contains more than 960 grams of elemental zinc per liter (8 pounds per gallon) of coating, as applied, and that is used for the expressed purpose of corrosion protection.

Pleasure craft means any marine or fresh-water vessel used by individuals for noncommercial, nonmilitary, and recreational purposes that is less than 20 meters in length. A vessel rented exclusively to or chartered by individuals for such purposes shall be considered a pleasure craft.

Pretreatment wash primer specialty coating means any coating that contains a minimum of 0.5 percent acid, by mass, and is applied only to bare metal to etch the surface and enhance adhesion of subsequent coatings.

Repair and maintenance of thermoplastic coating of commercial vessels (specialty coating) means any vinyl, chlorinated rubber, or bituminous resin coating that is applied over the same type of existing coating to perform

the partial recoating of any in-use commercial vessel. (This definition does not include coal tar epoxy coatings, which are considered "general use" coatings.)

Rubber camouflage specialty coating means any specially formulated epoxy coating used as a camouflage topcoat for exterior submarine hulls and sonar domes. Sealant for thermal spray aluminum means any epoxy coating applied to thermal spray aluminum surfaces at a maximum thickness of 1 dry mil.

Ship means any marine or fresh-water vessel used for military or commercial operations, including self-propelled vessels, those propelled by other craft (barges), and navigational aids (buoys). This definition includes, but is not limited to, all military and Coast Guard vessels, commercial cargo and passenger (cruise) ships, ferries, barges, tankers, container ships, patrol and pilot boats, and dredges. For purposes of this subpart, pleasure crafts and offshore oil and gas drilling platforms are not considered ships.

Shipbuilding and ship repair operations means any building, repair, repainting, converting, or alteration of ships.

Special marking specialty coating means any coating that is used for safety or identification applications, such as markings on flight decks and ships' numbers.

Specialty coating means any coating that is manufactured and used for one of the specialized applications described within this list of definitions.

Specialty interior coating means any coating used on interior surfaces aboard U.S. military vessels pursuant to a coating specification that requires the coating to meet specified fire retardant and low toxicity requirements, in addition to the other applicable military physical and performance requirements.

Tack specialty coating means any thin film epoxy coating applied at a maximum thickness of 2 dry mils to prepare an epoxy coating that has dried beyond the time limit specified by the manufacturer for the application of the next coat.

Thinner means a liquid that is used to reduce the viscosity of a coating and that evaporates before or during the cure of a film.

Thinning ratio means the volumetric ratio of thinner to coating, as supplied.

Thinning solvent: see Thinner.

Undersea weapons systems specialty coating means any coating applied to any component of a weapons system intended to be launched or fired from under the sea.

Volatile organic compounds (VOC) is as defined in § 51.100(s) of this chapter.

Volatile organic hazardous air pollutants (VOHAP) means any compound listed in or pursuant to section 112(b) of the CAA that contains carbon, excluding metallic carbides and carbonates. This definition includes VOC listed as HAP and exempt compounds listed as HAP.

Weld-through preconstruction primer (specialty coating) means a coating that provides corrosion protection for steel during inventory, is typically applied at less than 1 mil dry film thickness, does not require removal prior to welding, is temperature resistant (burn back from a weld is less than 1.25 centimeters [0.5 inch]), and does not normally require removal before applying film-building coatings, including inorganic zinc high-build coatings. When constructing new vessels, there may be a need to remove areas of weld-through preconstruction primer due to surface damage or contamination prior to application of film-building coatings.

§ 63.783 Standards.

(a) No owner or operator of any existing or new affected source shall cause or allow the application of any coating to a ship with an as-applied VOHAP content exceeding the applicable limit given in Table 2 of this subpart, as determined by the procedures described in § 63.785 (c)(1) through (c)(4). For the compliance procedures described in § 63.785 (c)(1) through (c)(3), VOC shall be used as a surrogate for VOHAP, and Method 24 of Appendix A to 40 CFR part 60 shall be used as the definitive measure for determining compliance. For the compliance procedure described in § 63.785(c)(4), an alternative test method capable of measuring independent VOHAP shall be used to determine compliance. The method must be submitted to and approved by the Administrator.

(b) Each owner or operator of a new or existing affected source shall ensure that:

(1) All handling and transfer of VOHAP-containing materials to and from containers, tanks, vats, drums, and piping systems is conducted in a manner that minimizes spills.

(2) All containers, tanks, vats, drums, and piping systems are free of cracks, holes, and other defects and remain closed unless materials are being added to or removed from them.

(c) *Approval of alternative means of limiting emissions.* (1) The owner or operator of an affected source may apply to the Administrator for permission to use an alternative means (such as an

add-on control system) of limiting emissions from coating operations. The application must include:

(i) An engineering material balance evaluation that provides a comparison of the emissions that would be achieved using the alternative means to those that would result from using coatings that comply with the limits in Table 2 of this subpart, or the results from an emission test that accurately measures the capture efficiency and control device efficiency achieved by the control system and the composition of the associated coatings so that the emissions comparison can be made;

(ii) A proposed monitoring protocol that includes operating parameter values to be monitored for compliance and an explanation of how the operating parameter values will be established through a performance test; and

(iii) Details of appropriate recordkeeping and reporting procedures.

(2) The Administrator shall approve the alternative means of limiting emissions if, in the Administrator's judgment, postcontrol emissions of VOHAP per volume applied solids will be no greater than those from the use of coatings that comply with the limits in Table 2 of this subpart.

(3) The Administrator may condition approval on operation, maintenance, and monitoring requirements to ensure that emissions from the source are no greater than those that would otherwise result from this subpart. § 63.784 Compliance dates.

(a) Each owner or operator of an existing affected source shall comply within 1 year after the effective date of this subpart.

(b) Each owner or operator of an existing unaffected area source that increases its emissions of (or its potential to emit) HAP such that the source becomes a major source that is subject to this subpart shall comply within 1 year after the date of becoming a major source.

(c) Each owner or operator of a new or reconstructed source shall comply with this subpart according to the schedule in § 63.6(b).

§ 63.785 Compliance procedures.

(a) For each batch of coating that is received by an affected source, the owner or operator shall (see Figure 1 of this section for a flow diagram of the compliance procedures):

(1) Determine the coating category and the applicable VOHAP limit as specified in § 63.783(a).

(2) Certify the as-supplied VOC content of the batch of coating. The owner or operator may use a

certification supplied by the manufacturer for the batch, although the owner or operator retains liability should subsequent testing reveal a violation. If the owner or operator performs the certification testing, only one of the containers in which the batch of coating was received is required to be tested.

(b)(1) In lieu of testing each batch of coating, as applied, the owner or operator may determine compliance with the VOHAP limits using any combination of the procedures described in paragraphs (c)(1), (c)(2), (c)(3), and (c)(4) of this section. The procedure used for each coating shall be determined and documented prior to application.

(2) The results of any compliance demonstration conducted by the affected source or any regulatory agency using Method 24 shall take precedence over the results using the procedures in paragraphs (c)(1), (c)(2), or (c)(3) of this section.

(3) The results of any compliance demonstration conducted by the affected source or any regulatory agency using an approved test method to determine VOHAP content shall take precedence over the results using the procedures in paragraph (c)(4) of this section.

(c)(1) *Coatings to which thinning solvent will not be added.* For coatings to which thinning solvent (or any other material) will not be added under any circumstance or to which only water is added, the owner or operator of an affected source shall comply as follows:

(i) Certify the as-applied VOC content of each batch of coating.

(ii) Notify the persons responsible for applying the coating that no thinning solvent may be added to the coating by affixing a label to each container of coating in the batch or through another means described in the implementation plan required in § 63.787(b).

(iii) If the certified as-applied VOC content of each batch of coating used during a calendar month is less than or equal to the applicable VOHAP limit in § 63.783(a) (either in terms of g/L of coating or g/L of solids), then compliance is demonstrated for that calendar month, unless a violation is revealed using Method 24 of Appendix A to 40 CFR part 60.

(2) *Coatings to which thinning solvent will be added—coating-by-coating compliance.* For a coating to which thinning solvent is routinely or sometimes added, the owner or operator shall comply as follows:

(i) Prior to the first application of each batch, designate a single thinner for the coating and calculate the maximum

allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in Table 2 of this subpart) for each batch as follows:

$$R = \frac{(V_s \times \text{VOHAP limit}) - m_{\text{VOC}}}{D_{\text{th}}} \quad \text{Eqn. 1}$$

where:

R=Maximum allowable thinning ratio for a given batch (L thinner/L coating as supplied);

V_s =Volume fraction of solids in the batch as supplied (L solids/L coating as supplied);

VOHAP limit=Maximum allowable as-applied VOHAP content of the coating (g VOHAP/L solids);

m_{VOC} =VOC content of the batch as supplied (g VOC (including cure volatiles and exempt compounds on the HAP list)/L coating (including water and exempt compounds) as supplied);

D_{th} =Density of the thinner (g/L).

If V_s is not supplied directly by the coating manufacturer, the owner or operator shall determine V_s as follows:

$$V_s = 1 - \frac{m_{\text{volatiles}}}{D_{\text{avg}}} \quad \text{Eqn. 2}$$

where:

$m_{\text{volatiles}}$ =Total volatiles in the batch, including VOC, water, and exempt compounds (g/L coating); and

D_{avg} =Average density of volatiles in the batch (g/L).

The procedures specified in § 63.786(d) may be used to determine the values of variables defined in this paragraph. In addition, the owner or operator may choose to construct nomographs, based on Equation 1 of this subpart, similar or identical to the one provided in appendix B of this subpart as a means of easily estimating the maximum allowable thinning ratio.

(ii) Prior to the first application of each batch, notify painters and other persons, as necessary, of the designated thinner and maximum allowable thinning ratio(s) for each batch of the coating by affixing a label to each container of coating or through another means described in the implementation plan required in § 63.787(b).

(iii) By the 15th day of each calendar month, determine the volume of each batch of the coating used, as supplied, during the previous month.

(iv) By the 15th day of each calendar month, determine the total allowable volume of thinner for the coating used during the previous month as follows:

$$V_{th} = \sum_{i=1}^n (R \times V_b)_i + \sum_{i=1}^n (R_{cold} \times V_{b-cold})_i \quad \text{Eqn. 3}$$

where:

V_{th} = Total allowable volume of thinner for the previous month (L thinner);

V_b = Volume of each batch, as supplied and before being thinned, used during non-cold-weather days of the previous month (L coating as supplied);

R_{cold} = Maximum allowable thinning ratio for each batch used during cold-weather days (L thinner/L coating as supplied);

V_{b-cold} = Volume of each batch, as supplied and before being thinned, used during cold-weather days of the previous month (L coating as supplied);

i = Each batch of coating; and

n = Total number of batches of the coating.

(v) By the 15th day of each calendar month, determine the volume of thinner actually used with the coating during the previous month.

(vi) If the volume of thinner actually used with the coating [paragraph (c)(3)(v) of this section] is less than or equal to the total allowable volume of thinner for the coating [paragraph (c)(3)(iv) of this section], then compliance is demonstrated for the coating for the previous month, unless a violation is revealed using Method 24 of Appendix A to 40 CFR part 60.

(3) *Coatings to which the same thinning solvent will be added—group compliance.* For coatings to which the same thinning solvent (or other material) is routinely or sometimes added, the owner or operator shall comply as follows:

(i) Designate a single thinner to be added to each coating during the month

and "group" coatings according to their designated thinner.

(ii) Prior to the first application of each batch, calculate the maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in Table 2 of this subpart) for each batch of coating in the group using the equations in paragraph (c)(2) of this section.

(iii) Prior to the first application of each "batch," notify painters and other persons, as necessary, of the designated thinner and maximum allowable thinning ratio(s) for each batch in the group by affixing a label to each container of coating or through another means described in the implementation plan required in § 63.787(b).

(iv) By the 15th day of each calendar month, determine the volume of each batch of the group used, as supplied, during the previous month.

(v) By the 15th day of each calendar month, determine the total allowable volume of thinner for the group for the previous month using Equation 3 of this subpart.

(vi) By the 15th day of each calendar month, determine the volume of thinner actually used with the group during the previous month.

(vii) If the volume of thinner actually used with the group [paragraph (c)(3)(vi) of this section] is less than or equal to the total allowable volume of thinner for the group [paragraph (c)(3)(v) of this section], then compliance is demonstrated for the group for the previous month, unless a violation is revealed using Method 24 of Appendix A to 40 CFR part 60.

(4) *Demonstration of compliance through an alternative (i.e., other than Method 24 of Appendix A to 40 CFR part 60) test method.* The owner or operator shall comply as follows:

(i) Certify the as-supplied VOHAP content (g VOHAP/L solids) of each batch of coating.

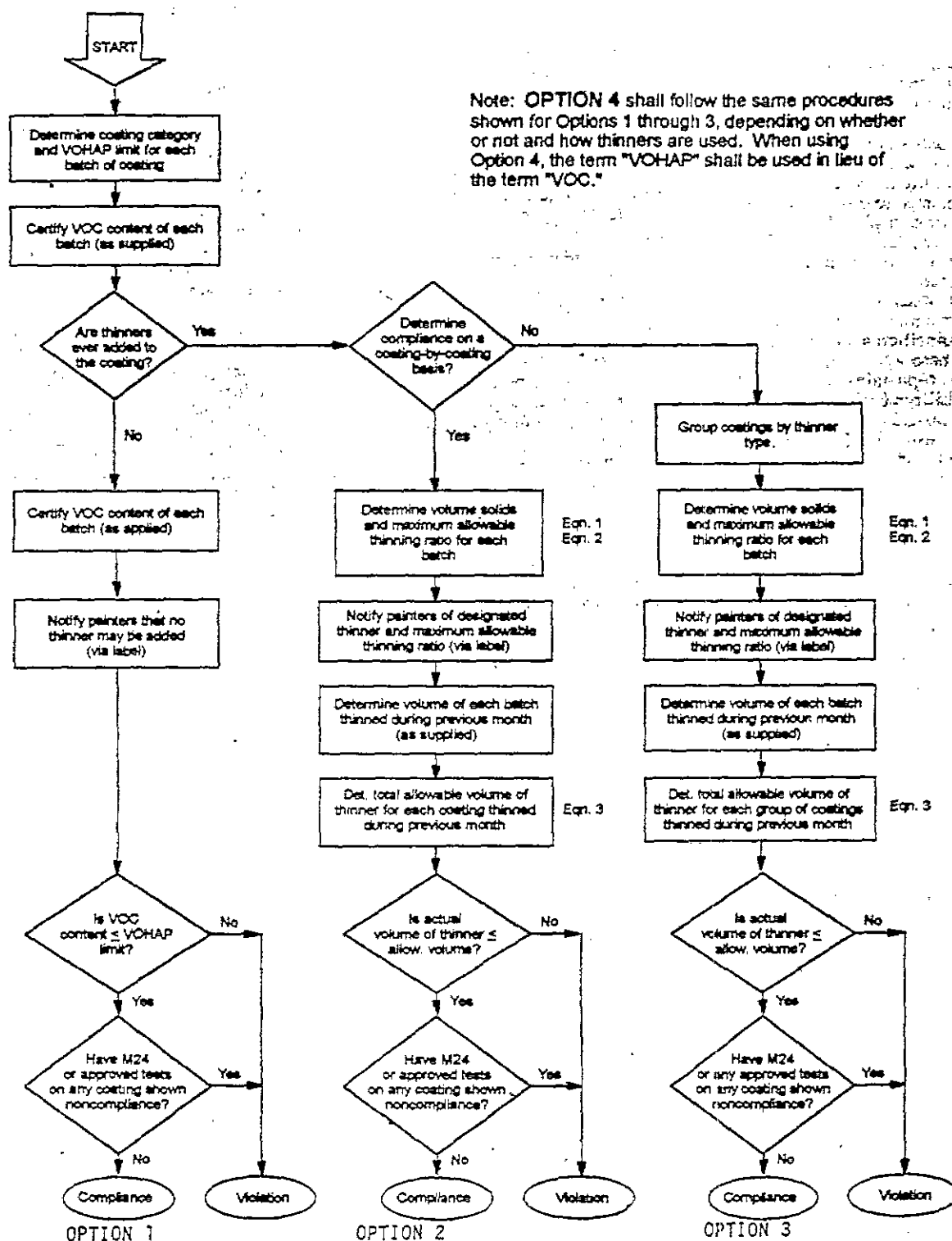
(ii) If no thinning solvent will be added to the coating, the owner or operator of an affected source shall follow the procedure described in § 63.785(c)(1), except that VOHAP content shall be used in lieu of VOC content.

(iii) If thinning solvent will be added to the coating, the owner or operator of an affected source shall follow the procedure described in § 63.785(c)(2) or (3), except that in Equation 1 of this subpart: the term " m_{VOC} " shall be replaced by the term " m_{VOHAP} ," defined as the VOHAP content of the coating as supplied (g VOHAP/L coating) and the term " D_{th} " shall be replaced by the term " $D_{th(VOHAP)}$ " defined as the average density of the VOHAP thinner(s) (g/L).

(d) A violation revealed through any approved test method shall result in a 1-day violation for enforcement purposes. A violation revealed through the recordkeeping procedures described in paragraphs (c)(1) through (c)(4) of this section shall result in a 30-day violation for enforcement purposes, unless the owner or operator provides sufficient data to demonstrate the specific days during which noncompliant coatings were applied.

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Figure 1 to §63.785 Flow diagram of compliance procedures



§ 63.786 Test methods and procedures.

(a) For the compliance procedures described in § 63.785(c) (1) through (c)(3), Method 24 of 40 CFR part 60, appendix A, is the definitive method for determining the VOC content of coatings, as supplied or as applied. When a coating or thinner contains exempt compounds that are volatile HAP or VOHAP, the owner or operator shall ensure, when determining the VOC content of a coating, that the mass of these exempt compounds is included.

(b) For the compliance procedure described in § 63.785(c)(4), the Administrator must approve the test method for determining the VOHAP content of coatings and thinners. As part of the approval, the test method must meet the specified accuracy limits indicated below for sensitivity, duplicates, repeatability, and reproducibility coefficient of variation each determined at the 95 percent confidence limit. Each percentage value below is the corresponding coefficient of variation multiplied by 2.8 as in the ASTM Method E180-93: Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals (incorporation by reference—see § 63.14).

(1) *Sensitivity.* The overall sensitivity must be sufficient to identify and calculate at least one mass percent of the compounds of interest based on the original sample. The sensitivity is defined as ten times the noise level as specified in ASTM Method D3257-93: Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography (incorporation by reference—see § 63.14). In determining the sensitivity, the level of sample dilution must be factored in.

(2) *Repeatability.* First, at the 0.1–5 percent analyte range the results would be suspect if duplicates vary by more than 6 percent relative and/or day to day variation of mean duplicates by the same analyst exceeds 10 percent relative. Second, at greater than 5 percent analyte range the results would be suspect if duplicates vary by more than 5 percent relative and/or day to day variation of duplicates by the same analyst exceeds 5 percent relative.

(3) *Reproducibility.* First, at the 0.1–5 percent analyte range the results would be suspect if lab to lab variation exceeds 60 percent relative. Second, at greater than 5 percent range the results would be suspect if lab to lab variation exceeds 20 percent relative.

(4) Any test method should include information on the apparatus, reagents and materials, analytical procedure, procedure for identification and

confirmation of the volatile species in the mixture being analyzed, precision and bias, and other details to be reported. The reporting should also include information on quality assurance (QA) auditing.

(5) Multiple and different analytical techniques must be used for positive identification if the components in a mixture under analysis are not known. In such cases a single column gas chromatograph (GC) may not be adequate. A combination of equipment may be needed such as a GC/mass spectrometer or GC/infrared system. (If a GC method is used, the operator must use practices in ASTM Method E260-91: Standard Practice for Gas Chromatography [incorporation by reference—see § 63.14].)

(c) A coating manufacturer or the owner or operator of an affected source may use batch formulation data as a test method in lieu of Method 24 of Appendix A to 40 CFR part 60 to certify the as-supplied VOC content of a coating if the manufacturer or the owner or operator has determined that batch formulation data have a consistent and quantitatively known relationship to Method 24 results. This determination shall consider the role of cure volatiles, which may cause emissions to exceed an amount based solely upon coating formulation data. Notwithstanding such determination, in the event of conflicting results, Method 24 of appendix A of 40 CFR part 60 shall take precedence.

(d) Each owner or operator of an affected source shall use or ensure that the manufacturer uses the form and procedures mentioned in appendix A of this subpart to determine values for the thinner and coating parameters used in Equations 1 and 2 of this subpart. The owner or operator shall ensure that the coating/thinner manufacturer (or supplier) provides information on the VOC and VOHAP contents of the coatings/thinners and the procedure(s) used to determine these values.

§ 63.787 Notification requirements.

(a) Each owner or operator of an affected source shall comply with all applicable notification requirements in § 63.9(a) through (d) and (i) through (j), with the exception that the deadline specified in § 63.9(b) (2) and (3) shall be extended from 120 days to 180 days. Any owner or operator that receives approval pursuant to § 63.783(c) to use an add-on control system to control coating emissions shall comply with the applicable requirements of § 63.9(e) through (h).

(b) *Implementation plan.* The provisions of § 63.9(a) apply to the requirements of this paragraph.

(1) Each owner or operator of an affected source shall:

(i) Prepare a written implementation plan that addresses each of the subject areas specified in paragraph (b)(3) of this section; and

(ii) Not later than 180 days after the effective date of this subpart, submit the implementation plan to the Administrator for approval along with the notification required by § 63.9(b) (2) or (5), as applicable.

(2) The Administrator may require revisions to the initial plan where the Administrator finds that the plan does not adequately address each subject area listed in paragraph (b)(3) of this section or that the requirements in the plan are unclear.

(3) *Implementation plan contents.* Each implementation plan shall address the following subject areas:

(i) *Coating compliance procedures.* The implementation plan shall include the compliance procedure(s) under § 63.785(c) that the source intends to use.

(ii) *Recordkeeping procedures.* The implementation plan shall include the procedures for maintaining the records required under § 63.788, including the procedures for gathering the necessary data and making the necessary calculations.

(iii) *Transfer, handling, and storage procedures.* The implementation plan shall include the procedures for ensuring compliance with § 63.783(b).

(4) *Major sources that intend to become area sources by the compliance date.* Existing major sources that intend to become area sources by the compliance date December 16, 1996 may choose to submit, in lieu of the implementation plan required under paragraph (b)(1) of this section, a statement that, by the compliance date, the major source intends to obtain and comply with federally enforceable limits on their potential to emit which make the facility an area source. § 63.788 Recordkeeping and reporting requirements.

(a) Each owner or operator of an affected source shall comply with the applicable recordkeeping and reporting requirements in § 63.10 (a), (b), (d), and (f). Any owner that receives approval pursuant to § 63.783(c) to use an add-on control system to control coating emissions shall also comply with the applicable requirements of § 63.10 (c) and (e). A summary of recordkeeping and reporting requirements is provided in Table 3 of this subpart.

(b) *Recordkeeping requirements.* (1) Each owner or operator of an unaffected major source, as described in § 63.781(b), shall record the total volume of coating applied at the source to ships. Such records shall be compiled monthly and maintained for a minimum of 5 years.

(2) Each owner or operator of an affected source shall compile records on a monthly basis and maintain those records for a minimum of 5 years. At a minimum, these records shall include:

- (i) All documentation supporting initial notification;
- (ii) A copy of the affected source's approved implementation plan;
- (iii) The volume of each low-usage-exempt coating applied;
- (iv) Identification of the coatings used, their appropriate coating categories, and the applicable VOHAP limit;
- (v) Certification of the as-supplied VOC content of each batch of coating;
- (vi) A determination of whether containers meet the standards as described in § 63.783(b)(2); and
- (vii) The results of any Method 24 of appendix A to 40 CFR part 60 or approved VOHAP measurement test conducted on individual containers of coating, as applied.

(3) The records required by paragraph (b)(2) of this section shall include additional information, as determined by the compliance procedure(s) described in § 63.785(c) that each affected source followed:

(i) *Coatings to which thinning solvent will not be added.* The records maintained by facilities demonstrating compliance using the procedure described in § 63.785(c)(1) shall contain the following information:

(A) Certification of the as-applied VOC content of each batch of coating; and

(B) The volume of each coating applied.

(ii) *Coatings to which thinning solvent will be added—coating-by-coating compliance.* The records maintained by facilities demonstrating compliance using the procedure described in § 63.785(c)(2) shall contain the following information:

(A) The density and mass fraction of water and exempt compounds of each thinner and the volume fraction of solids (nonvolatiles) in each batch, including any calculations;

(B) The maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in Table 2 of this subpart for each batch of coating, including calculations;

(C) If an affected source chooses to comply with the cold-weather limits,

the dates and times during which the ambient temperature at the affected source was below 4.5°C (40°F) at the time the coating was applied and the volume used of each batch of the coating, as supplied, during these dates;

(D) The volume used of each batch of the coating, as supplied;

(E) The total allowable volume of thinner for each coating, including calculations; and

(F) The actual volume of thinner used for each coating.

(iii) *Coatings to which the same thinning solvent will be added—group compliance.* The records maintained by facilities demonstrating compliance using the procedure described in § 63.785(c)(3) shall contain the following information:

(A) The density and mass fraction of water and exempt compounds of each thinner and the volume fraction of solids in each batch, including any calculations;

(B) The maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in Table 2 of this subpart) for each batch of coating, including calculations;

(C) If an affected source chooses to comply with the cold-weather limits, the dates and times during which the ambient temperature at the affected source was below 4.5°C (40°F) at the time the coating was applied and the volume used of each batch in the group, as supplied, during these dates;

(D) Identification of each group of coatings and their designated thinners;

(E) The volume used of each batch of coating in the group, as supplied;

(F) The total allowable volume of thinner for the group, including calculations; and

(G) The actual volume of thinner used for the group.

(iv) *Demonstration of compliance through an alternative (i.e., non-Method 24 in appendix A to 40 CFR part 60) test method.* The records maintained by facilities demonstrating compliance using the procedure described in § 63.785(c)(4) shall contain the following information:

(A) Identification of the Administrator-approved VOHAP test method or certification procedure;

(B) For coatings to which the affected source does not add thinning solvents, the source shall record the certification of the as-supplied and as-applied VOHAP content of each batch and the volume of each coating applied;

(C) For coatings to which the affected source adds thinning solvent on a coating-by-coating basis, the source shall record all of the information

required to be recorded by paragraph (b)(3)(ii) of this section; and

(D) For coatings to which the affected source adds thinning solvent on a group basis, the source shall record all of the information required to be recorded by paragraph (b)(3)(iii) of this section.

(4) If the owner or operator of an affected source detects a violation of the standards specified in § 63.783, the owner or operator shall, for the remainder of the reporting period during which the violation(s) occurred, include the following information in his or her records:

(i) A summary of the number and duration of deviations during the reporting period, classified by reason, including known causes for which a Federally-approved or promulgated exemption from an emission limitation or standard may apply.

(ii) Identification of the data availability achieved during the reporting period, including a summary of the number and total duration of incidents that the monitoring protocol failed to perform in accordance with the design of the protocol or produced data that did not meet minimum data accuracy and precision requirements, classified by reason.

(iii) Identification of the compliance status as of the last day of the reporting period and whether compliance was continuous or intermittent during the reporting period.

(iv) If, pursuant to paragraph (b)(4)(iii) of this section, the owner or operator identifies any deviation as resulting from a known cause for which no Federally-approved or promulgated exemption from an emission limitation or standard applies, the monitoring report shall also include all records that the source is required to maintain that pertain to the periods during which such deviation occurred and:

(A) The magnitude of each deviation;

(B) The reason for each deviation;

(C) A description of the corrective action taken for each deviation, including action taken to minimize each deviation and action taken to prevent recurrence; and

(D) All quality assurance activities performed on any element of the monitoring protocol.

(c) *Reporting requirements.* Before the 60th day following completion of each 6-month period after the compliance date specified in § 63.784, each owner or operator of an affected source shall submit a report to the Administrator for each of the previous 6 months. The report shall include all of the information that must be retained pursuant to paragraphs (b) (2) through (3) of this section, except for that

information specified in paragraphs (b)(2)(i) through (ii), (b)(2)(v), (b)(3)(i)(A), (b)(3)(ii)(A), and (b)(3)(iii)(A). If a violation at an affected source is detected, the source shall also

report the information specified in paragraph (b)(4) of this section for the reporting period during which the violation(s) occurred. To the extent possible, the report shall be organized

according to the compliance procedure(s) followed each month by the affected source.

TABLE 1 TO SUBPART II OF PART 63—GENERAL PROVISIONS APPLICABILITY TO SUBPART II

Reference	Applies to subpart II	Comment
63.1(a)(1)–(3)	Yes.	Subpart II clarifies the applicability of each paragraph in subpart A to sources subject to subpart II.
63.1(a)(4)	Yes.	
63.1(a)(5)–(7)	Yes.	Discusses State programs.
63.1(a)(8)	No.	
63.1(a)(9)–(14)	Yes.	§ 63.781 specifies applicability in more detail.
63.1(b)(1)	Yes.	
63.1(b)(2)–(3)	Yes.	Additional terms are defined in § 63.782; when overlap between subparts A and II occurs, subpart II takes precedence.
63.1(c)–(e)	Yes.	
63.2	Yes.	Other units used in subpart II are defined in that subpart.
63.3	Yes.	
63.4	Yes.	Except information on control devices and control efficiencies should not be included in the application, unless an add-on control system is or will be used to comply with subpart II in accordance with § 63.783(c).
63.5(a)–(c)	Yes.	
63.5(d)	Yes.	Except § 63.784(a) specifies the compliance date for existing affected sources.
63.5(e)–(f)	Yes.	
63.6(a)–(b)	Yes.	If an alternative means of limiting emissions (e.g., an add-on control system) is used to comply with subpart II in accordance with § 63.783(c), then these paragraphs do apply.
63.6(c)–(d)	Yes.	
63.6(e)–(f)	No.	§ 63.783(c) specifies procedures for application and approval of alternative means of limiting emissions.
63.6(g)	No.	
63.6(h)	No.	Subpart II does not contain any opacity or visible emission standards.
63.6(i)–(j)	Yes.	
63.7	No.	If an alternative means of limiting emissions (e.g., an add-on control system) is used to comply with subpart II in accordance with § 63.783(c), then this section does apply.
63.8	No.	
63.9(a)–(d)	Yes.	If an alternative means of limiting emissions (e.g., an add-on control system) is used to comply with subpart II in accordance with § 63.783(c), then this section does apply.
63.9(e)	No.	
63.9(f)	No.	§ 63.787(a) extends the initial notification deadline to 180 days. § 63.787(b) requires an implementation plan to be submitted with the initial notification.
63.9(g)–(h)	No.	
63.9(i)–(j)	Yes.	If an alternative means of limiting emissions (e.g., an add-on control system) is used to comply with subpart II in accordance with § 63.783(c), then this paragraph does apply.
63.10(a)–(b)	Yes.	
63.10(c)	No.	§ 63.788(b)–(c) list additional recordkeeping and reporting requirements.
63.10(d)	Yes.	
63.10(e)	No.	If an alternative means of limiting emissions (e.g., an add-on control system) is used to comply with subpart II in accordance with § 63.783(c), then this paragraph does apply.
63.10(f)	Yes.	
63.11	No.	If an alternative means of limiting emissions (e.g., an add-on control system) is used to comply with subpart II in accordance with § 63.783(c), then this section does apply.
63.12–63.15	Yes.	

TABLE 2 TO SUBPART II OF PART 63.—VOLATILE ORGANIC HAP (VOHAP) LIMITS FOR MARINE COATINGS

Coating category	VOHAP limits ^{a,b,c}		
	Grams/liter coating (minus water and exempt compounds)	Grams/liter solids ^d	
		t ≥ 4.5° C	t < 4.5° C ^e
General use	340	571	728
Specialty:			
Air flask	340	571	728
Antenna	530	1,439	
Antifoulant	400	765	971
Heat resistant	420	841	1,069
High-gloss	420	841	1,069
High-temperature	500	1,237	1,597

TABLE 2 TO SUBPART II OF PART 63.—VOLATILE ORGANIC HAP (VOHAP) LIMITS FOR MARINE COATINGS—Continued

Coating category	VOHAP limits ^{a,b,c}		
	Grams/liter coating (minus water and exempt compounds)	Grams/liter solids ^d	
		t ≥ 4.5° C	t < 4.5° C ^e
Inorganic zinc high-build	340	571	728
Military exterior	340	571	728
Mist	610	2,235	
Navigational aids	550	1,597	
Nonskid	340	571	728
Nuclear	420	841	1,069
Organic zinc	360	630	802
Pretreatment wash primer	780	11,095	
Repair and maint. of thermoplastics	550	1,597	
Rubber camouflage	340	571	728
Sealant for thermal spray aluminum	610	2,235	
Special marking	490	1,178	
Specialty interior	340	571	728
Tack coat	610	2,235	
Undersea weapons systems	340	571	728
Weld-through precoat primer	650	2,885	

^a The limits are expressed in two sets of equivalent units. Either set of limits may be used for the compliance procedure described in § 63.785(c)(1), but only the limits expressed in units of g/L solids (nonvolatiles) shall be used for the compliance procedures described in § 63.785(c)(2) through (4).

^b VOC (including exempt compounds listed as HAP) shall be used as a surrogate for VOHAP for those compliance procedures described in § 63.785(c)(1) through (3).

^c To convert from g/L to lb/gal, multiply by (3.785 L/gal)/(1/453.6 lb/g) or 1/120. For compliance purposes, metric units define the standards.

^d VOHAP limits expressed in units of mass of VOHAP per volume of solids were derived from the VOHAP limits expressed in units of mass of VOHAP per volume of coating assuming the coatings contain no water or exempt compounds and that the volumes of all components within a coating are additive.

^e These limits apply during cold-weather time periods, as defined in § 63.782. Cold-weather allowances are not given to coatings in categories that permit over a 40 percent VOHAP content by volume. Such coatings are subject to the same limits regardless of weather conditions.

TABLE 3 TO SUBPART II OF PART 63.—SUMMARY OF RECORDKEEPING AND REPORTING REQUIREMENTS^{a,b,c}

Requirement	All Opts.		Option 1		Option 2		Option 3	
	Rec	Rep	Rec	Rep	Rec	Rep	Rec	Rep
Notification (§ 63.9(a)–(d))	X	X						
Implementation plan (§ 63.787(b)) ^d	X	X						
Volume of coating applied at unaffected major sources (§ 63.781(b))	X							
Volume of each low-usage-exempt coating applied at affected sources (§ 63.781(c)) ...	X	X						
ID of the coatings used, their appropriate coating categories, and the applicable VOHAP limit	X	X						
Determination of whether containers meet the standards described in § 63.783(b)(2) ...	X	X						
Results of M-24 or other approved tests	X	X						
Certification of the as-supplied VOC content of each batch	X							
Certification of the as-applied VOC content of each batch			X					
Volume of each coating applied			X	X				
Density of each thinner and volume fraction of solids in each batch					X	X		
Maximum allowable thinning ratio(s) for each batch					X	X	X	X
Volume used of each batch, as supplied					X	X	X	X
Total allowable volume of thinner					X	X	X	X
Actual volume of thinner used					X	X	X	X
Identification of each group of coatings and designated thinners							X	X

^a Affected sources that comply with the cold-weather limits must record and report additional information, as specified in § 63.788(b)(3) (ii)(C), (iii)(C), and (iv)(D).

^b Affected sources that detect a violation must record and report additional information, as specified in § 63.788(b)(4).

^c OPTION 4: the recordkeeping and reporting requirements of Option 4 are identical to those of Options 1, 2, or 3, depending on whether and how thinners are used. However, when using Option 4, the term "VOHAP" shall be used in lieu of the term "VOC," and the owner or operator shall record and report the Administrator-approved VOHAP test method or certification procedure.

^d Major sources that intend to become area sources by the compliance date may, in lieu of submitting an implementation plan, choose to submit a statement of intent as specified in § 63.787(b)(4).

Appendix A to Subpart II of Part 63—VOC Data Sheet¹Properties of the Coating "As Supplied" by the Manufacturer²

Coating Manufacturer: _____
 Coating Identification: _____
 Batch Identification: _____

¹ Incorporation by reference—see § 63.14.

² Adapted from EPA-340/1-96-016 (July 1988), p. II-2.

³ The subscript "s" denotes each value is for the coating "as supplied" by the manufacturer.

Supplied To: _____

Properties of the coating as supplied³ to the customer:

- A. Coating Density: (D_c) _____ g/L
☐ ASTM D1475-90* ☐ Other³
 B. Total Volatiles: (m_v) _____ Mass Percent
☐ ASTM D2369-93* ☐ Other³
 C. Water Content: 1. (m_w) _____ Mass Percent
☐ ASTM D3792-91* ☐ ASTM D4017-90* ☐ Other³
 2. (v_w) _____ Volume Percent

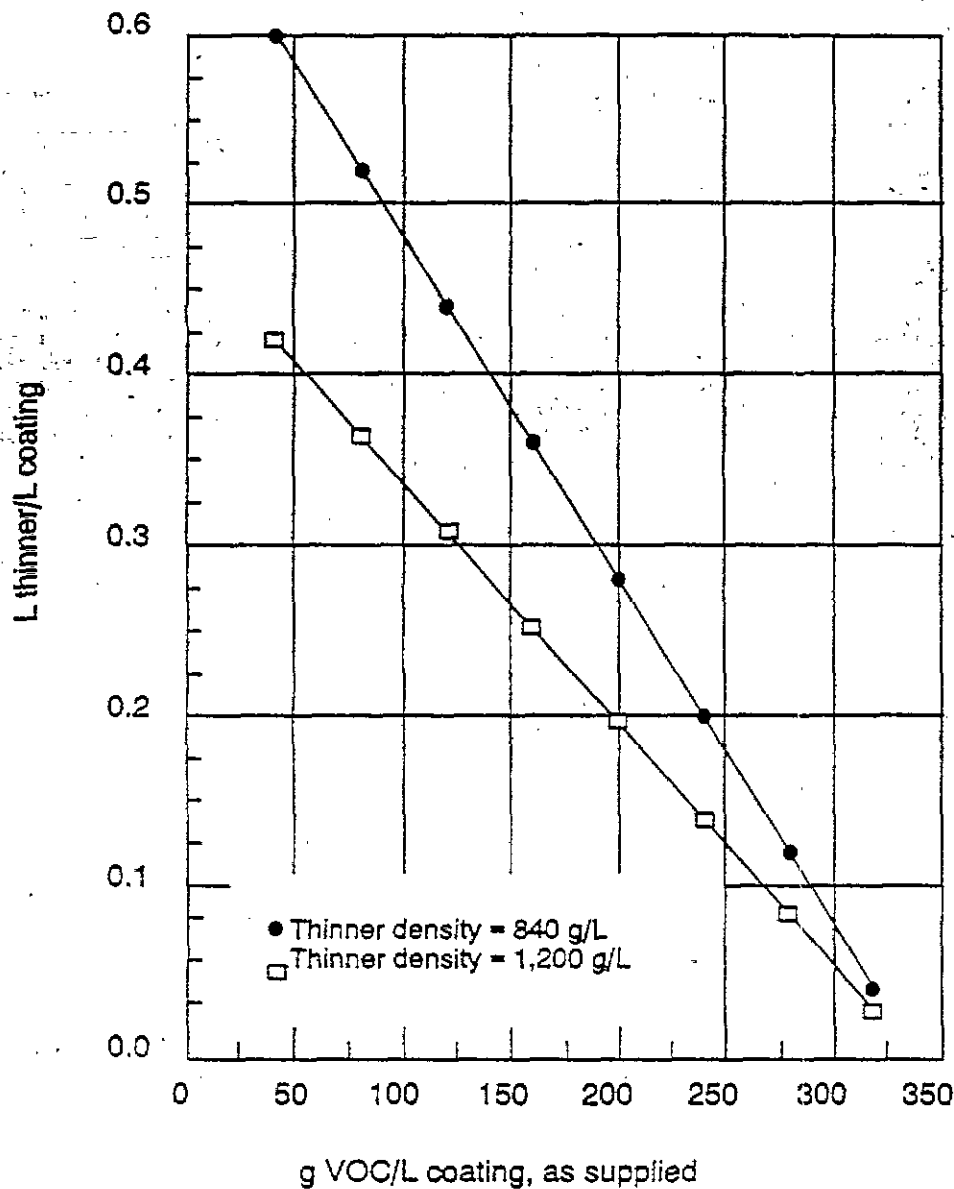
³ Explain the other method used under "Remarks."

- ☐ Calculated ☐ Other³
 D. Organic Volatiles: (m_o) _____ Mass Percent
 E. Nonvolatiles: (v_n) _____ Volume Percent
☐ Calculated ☐ Other³
 F. VOC Content (VOC):
 1. _____ g/L solids (nonvolatiles)
 2. _____ g/L coating (less water and exempt compounds)
 G. Thinner Density: D_t _____ g/L
 ASTM _____ ☐ Other³

Remarks: (use reverse side)

Signed: _____ Date: _____

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Appendix B To Subpart II of Part 63 -- Maximum Allowable Thinning Rates As A Function Of As Supplied VOC Content And Thinner Density^{a,b}

^a These graphs represent maximum allowable thinning ratios for general use coatings without water or exempt compounds.

^b The average density of the volatiles in the coating was assumed = 840 g solvent/L solvent.

transit Wrangell Narrows to no more than 80 feet in width overall. Increasing the maximum barge width which can transit Wrangell Narrows from 80 to 100 feet will allow barge operators to carry more containers per transit and enable them to more efficiently meet the needs of their Alaskan customers.

Approximately 95,000 containers are shipped through Southeast Alaska each year on approximately 200 transits of Wrangell Narrows. Consumer goods are the primary cargo.

Barges larger than 80 feet in width overall, cannot transit Wrangell Narrows without a waiver of the size restriction. If they cannot use Wrangell Narrows, they must transit through Chatham Strait around Cape Decision which increases the transit distance to the Gulf of Alaska by over 170 miles. Inclement weather, common in Southeast Alaska, often causes delays of as many as two or three days while barge operators wait for better weather to make the passage around Cape Decision. The risk of a marine casualty increases when transporting cargo in severe weather.

Wrangell Narrows is wide enough, even in its narrowest sections, to allow for the safe transit of 100 foot wide barges. Alaska Marine Lines has been safely operating 100 foot wide single barge tows on Wrangell Narrows with as Coast Guard waiver since May 1994. Southeast Alaska relies heavily upon container barges to deliver consumer goods essential to the every day life of its residents. Allowing 100 foot wide single barge tows in Wrangell Narrows will eliminate all current requests for waivers from the width restriction and will reduce unnecessary weather-related delays of consumer good shipments to Alaska residents. It will also allow most single barge tows to operate in the protected waters of Wrangell Narrows during inclement weather.

Discussion of Comments

The Coast Guard received four comments following the publication of the NPRM. Three comments were from barge operators and one was from a national trade association for the inland and coastal barge and towing industry. All of the comments received were in support of the proposed regulation for the following reasons:

(1) The barge width increase will reduce the number of transits, improving marine safety in the Wrangell Narrows;

(2) Barge freight will reach customers in a more timely manner since tow operators will be able to transit the Narrows rather than going the extra 170 miles around Cape Decision; and

(3) The need to transit by way of Cape Decision during bad weather will be eliminated, avoiding the risk of weather-related accidents.

Regulatory Evaluation

This final rule is not a significant regulatory action under Executive Order 12866 and is not significant under the Department of Transportation Regulatory Policies and Procedures (44 FR 11040; February 26, 1979). The Coast Guard has determined that a Regulatory Evaluation is unnecessary because of the minimal impact expected.

Small Entities

Because the impact of this regulatory action is minimal, the Coast Guard certifies under 5 U.S.C. 605(b) that this final rule will not have a significant economic impact on a substantial number of small entities.

Collection of Information

This regulatory action contains no collection of information requirements under the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*)

Federalism

This rule has been analyzed in accordance with Executive Order No. 12612 on Federalism (October 26, 1987), which requires Executive departments and agencies to be guided by certain fundamental federalism principles in formulating and implementing policies. These policies have been fully considered in the development of the proposed regulation. This final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

Environment

The Coast Guard has considered the environmental impact of this proposal and concluded that this action is Categorically Excluded in accordance with section 2.B.2.e(34)(g) of the NEPA Implementing Procedures, COMDTINST M16475.2B. A copy of the categorical exclusion determination is available in the docket for inspection or copying where indicated under ADDRESSES.

List of Subjects in 33 CFR Part 162

Navigation (water), Waterways.

For the reasons set out in the preamble, the Coast Guard amends 33 CFR Part 162 as follows:

PART 162—INLAND WATERWAYS NAVIGATION REGULATIONS

1. The authority citation for part 162 continues to read as follows:

Authority: 3 U.S.C. 1231; 49 CFR 1.46.

2. In section 162.255, paragraph (e)(2) is revised to read as follows:

§ 162.255 Wrangell Narrows, Alaska; use, administration, and navigation.

(e) * * *

(2) Raft and barge tows of more than one unit shall not exceed 65 feet in width overall. Single barge tows shall not exceed 100 feet in width overall.

Dated: December 5, 1995.

J.A. Creech,
Captain, U.S. Coast Guard, Acting Chief,
Office of Navigation Safety and Waterway
Services.

[FR Doc. 95-30262 Filed 12-11-95; 8:45 am]

BILLING CODE 4910-14-M

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[AD-FRL-5333-5]

RIN 2060-AC19

National Emission Standards for Hazardous Air Pollutants for Source Categories: Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry and Other Processes Subject to the Negotiated Regulation for Equipment Leaks; Correction

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule; Correcting amendments.

SUMMARY: This action corrects several errors in cross-referencing provisions and clarifies regulatory text of the "National Emission Standards for Hazardous Air Pollutants for Source Categories: Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry and Other Processes Subject to the Negotiated Regulation for Equipment Leaks," which was issued as a final rule on April 22, 1994 and June 6, 1994. This rule is commonly known as the Hazardous Organic NESHAP or the HON.

EFFECTIVE DATE: December 12, 1995.

FOR FURTHER INFORMATION CONTACT: Dr. Janet S. Meyer, Coatings and Consumer Products Group, Emissions Standards Division (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone number (919) 541-5254.

SUPPLEMENTARY INFORMATION: On April 22, 1994 (59 FR 19402) and June 6, 1994 (59 FR 29196), the EPA promulgated the

national emission standards for hazardous air pollutants (NESHAP) for the synthetic organic chemical manufacturing industry (SOCMI), and for several other processes subject to the equipment leaks portion of the rule. These regulations were promulgated as subparts F, G, H, and I in 40 CFR part 63, and are commonly referred to as the Hazardous Organic NESHAP or the HON. On September 20, 1994, the EPA published in the *Federal Register* a notice of corrections to typographical and cross-referencing errors in subparts F, H, and I of the final regulations. The notice also included a few editorial changes to clarify the intent of certain provisions in those subparts. This notice contains additional corrections to typographical and cross-referencing errors, as well as additional editorial changes to clarify the intent of certain provisions in subparts F, G, and H of the final regulations.

Corrections are being made to § 63.100(f)(1) and the definition of "batch operation" in § 63.101 of subpart F to clarify that the process vent provisions of the rule apply only to continuous vents, and the definition of batch operation was intended to apply to unit operations. This correction is necessary to avoid confusion over the applicability of the process vent control requirements. The definition of "batch operation" is being revised to clarify that the term "batch operation" refers to a unit operation within the chemical manufacturing process unit rather than to the entire chemical manufacturing process unit operation. To improve consistency with the definition of "unit operation," the definition of "batch operation" under § 63.101 of subpart F is being revised to cover all operations, including but not limited to, extraction, drying, condensation, filtration, absorption, distillation, and reaction. This same revision is being made to the definition of "batch operation" under § 63.111 of subpart G.

Section 63.104(b)(1)(i)(C) is being revised to correct a drafting error. The restrictive clause "If monitoring for speciated HAP" is being deleted from that paragraph because it was the EPA's intention in the final rule that under the provisions for monitoring cooling water, whether a source chooses to monitor for total hazardous air pollutants (HAP), total volatile organic compounds (VOC), or speciated HAP, the source is required to monitor for only those HAP that are present in the process fluid in concentrations greater than 5 percent by weight.

A few revisions are being made to subpart F to improve consistency in terminology and consistency among the

provisions in subparts A, F, and H. To improve consistency among the subpart A, F, and H provisions, and to correct an error in cross-referencing subpart A, § 63.100(k)(3) of subpart F is being revised to cross-reference the compliance extension provisions in § 63.182(a)(6) of subpart H and § 63.6(i) of subpart A which indicates that sources granted extensions as provided in subparts A and F are not required to meet the schedule requirements under subpart H. Additionally, § 63.102(c)(1) is being revised to correct errors in cross-referencing 40 CFR parts 70 and 71, and § 63.105(a) is being revised to correct an error in cross-referencing subpart G.

A few corrections are being made to subpart G to improve consistency in terminology. The term "vapor pressure" in table 10, which is not defined in the HON provisions, is being changed to "maximum true vapor pressure," which is the defined term in the HON provisions. The definition of "hard-piping" is being changed to make it consistent with an earlier revision to the definition of this term in subpart H. The definition of the term "rack-weighted average partial pressure" is being changed to clarify that the mole fraction of the compound is used in calculating the individual HAP maximum true vapor pressure, and to clarify the definition of the term G. Footnote "d" for tables 14b and 15b, and footnote "e" for table 16 are being corrected to be consistent with the reporting requirements specified in those tables.

Various sections in subpart G are being revised to correct drafting errors in the usage of terms and in cross-referencing. Several typographical errors in Figure 7, table 6, the definition of "incinerator" in § 63.111, and in §§ 63.144, 63.145, and 63.152 are being corrected. Various cross-referencing errors in table 15a, table 15b, the definition of "average flow rate" in § 63.111, and in §§ 63.138, 63.147, 63.150, and 63.175 are being corrected.

Changes are being made to § 63.150 (k) and (k)(1) to correct a drafting error. The rule should have referred to "operating permit authority" instead of the "Administrator." As discussed in the April 22, 1994 *Federal Register*, the decision on the hazard/risk evaluation is to be made by the State or local permit authority, not by the EPA.

The reference to § 63.6(i)(6) of subpart A in § 63.151(a)(6)(ii) is being revised to reflect the general provisions as issued in the final rule (59 FR 12408). The reference made to § 63.6 of subpart A in § 63.151(a)(6)(ii) of the final HON rule had reflected an earlier draft of the general provisions. This same cross-

reference correction is being made to § 63.182(a)(6)(ii) of subpart H. Section 63.182(d)(2)(vii) is being corrected to cross-reference both § 63.173(a) and (b). Nitrobenzene is being added to table 9 because nitrobenzene was inadvertently not included in table 9 of the version of the HON sent to the *Federal Register* for printing.

Corrections are being made to several sections in subpart G to clarify the intent of the provisions. The "knowledge of the wastewater" option for determining average volatile organic hazardous air pollutant (VOHAP) concentration is being amended to clarify that water concentrations of HAP must be multiplied by the appropriate f_m factors from table 34 to obtain the volatile HAP fraction. The drafting in § 63.148(j) is being corrected to clarify the relationship between those requirements and the reporting requirements of §§ 63.152(c) and 63.182(b).

The Implementation Plan requirements in § 63.151(a)(2) and § 63.151(c) are being corrected to clarify that for existing sources, the information required in the implementation plan need not be submitted earlier than 12 months prior to the compliance date for sources not using emissions averaging or 18 months prior to the compliance date for sources using emissions averaging. This clarification is necessary to make the regulation consistent with the EPA's intent to allow 18 or 24 months for preparation of the required information. Due to a drafting error, the final rule could be interpreted to require earlier submittal of this information for any source required to submit an operating permit application before these dates. The intent of § 63.151(c)(1) is to avoid duplicative submissions of implementation plan information, not to require submission of such information earlier than 12 or 18 months prior to the compliance date.

By promulgating these technical corrections directly as a final rule, the EPA is foregoing an opportunity for public comment on a notice of proposed rulemaking. Section 553(b) of title 5 of the United States Code and Section 307(b) of the Clean Air Act permit an agency to forego notice and comment when "the agency for good cause finds (and incorporates the finding and a brief statement of reasons therefore in the rules issued) that notice and public procedure thereon are impracticable, unnecessary, or contrary to the public interest." The EPA finds that notice and comment regarding these minor technical corrections are unnecessary due to their noncontroversial nature and because they do not substantively

change the requirements of the HON. The EPA finds that this constitutes good cause under 5 U.S.C. 553(b) for a determination that the issuance of a notice of proposed rulemaking is unnecessary.

List of Subjects in 40 CFR Part 63

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

Dated: November 8, 1995.

Mary D. Nichols,
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 corrected 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 F—National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry

2. Section 63.100 is amended by revising paragraph (f)(1) and revising the first sentence of paragraph (k)(3) introductory text to read as follows:

§ 63.100 Applicability and designation of source.

(f) * * *

(1) Process vents from batch operations;

(k) * * *

(3) Existing sources shall be in compliance with subpart H of this part no later than the dates specified in paragraphs (k)(3)(i) through (k)(3)(v) of this section, except as provided for in paragraphs (k)(4) through (k)(8) of this section, unless an extension has been granted by the Administrator as provided in § 63.182(a)(6) of subpart H of this part or granted by the operating permit authority as provided in § 63.6(f) of subpart A of this part. * * *

3. Section 63.101 is amended by revising the definition of "batch operation" in paragraph (b) to read as follows:

§ 63.101 Definitions.

(b) * * *

Batch operation means a noncontinuous operation in which a discrete quantity or batch of feed is

charged into a unit operation within a chemical manufacturing process unit and processed at one time. Batch operation includes noncontinuous operations in which the equipment is fed intermittently or discontinuously. Addition of raw material and withdrawal of product do not occur simultaneously in a batch operation. After each batch operation, the equipment is generally emptied before a fresh batch is started.

4. Section 63.102 is amended by revising paragraph (c)(1) to read as follows:

§ 63.102 General standards.

(c) * * *

(1) If the EPA has approved a State operating permit program under 40 CFR Part 70, the permit shall be obtained from the State authority. If the State operating permit program has not been approved, the source shall apply to the EPA Regional Office.

5. Section 63.104 is amended by revising paragraph (b)(1)(i)(C) to read as follows:

§ 63.104 Heat exchange system requirements.

(b) * * *

(1) * * *

(i) * * *

(C) Only HAP that are present in the process fluid in concentrations greater than 5 percent by weight are required to be measured in the cooling water.

§ 63.105 [Amended]

6. Section 63.105 is amended by revising the reference in paragraph (a) from "table 2 of this subpart" to read "table 9 of subpart G of this part".

Subpart G—National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater

7. Section 63.111 is amended by revising the definitions of "average flow rate," "batch operation," "hard-piping," "incinerator," "mass flow rate," and "rack-weighted average partial pressure" to read as follows:

§ 63.111 Definitions.

Average flow rate, as used in the wastewater provisions, means the annual average flow rate, as determined

according to the procedures specified in § 63.144(c).

Batch operation means a noncontinuous operation in which a discrete quantity or batch of feed is charged into a unit operation within a chemical manufacturing process unit and distilled or reacted at one time. Batch operation includes noncontinuous operations in which the equipment is fed intermittently or discontinuously. Addition of raw material and withdrawal of product do not occur simultaneously in a batch operation. After each batch operation, the equipment is generally emptied before a fresh batch is started.

Hard-piping means pipe or tubing that is manufactured and properly installed using good engineering judgment and standards such as American National Standards Institute (ANSI) B31-3.

Incinerator means an enclosed combustion device that is used for destroying organic compounds. Auxiliary fuel may be used to heat waste gas to combustion temperatures. Any energy recovery section present is not physically formed into one manufactured or assembled unit with the combustion section; rather, the energy recovery section is a separate section following the combustion section and the two are joined by ducts or connections carrying flue gas. The above energy recovery section limitation does not apply to an energy recovery section used solely to preheat the incoming vent stream or combustion air.

Mass flow rate, as used in the wastewater provisions, means the rate at which the mass of a constituent in a wastewater stream flows past a point, determined by multiplying the average concentration of that constituent in the wastewater stream by the average flow rate (annual average volumetric flow rate) and density of the wastewater stream, as determined according to the procedures specified in §§ 63.144 (e)(2) and (e)(3).

Rack-weighted average partial pressure means the throughput weighted average of the average maximum true vapor pressure of liquids containing organic HAP transferred at a transfer rack. The rack-weighted average partial pressure shall be calculated using the equation below:

Where:

P = Rack-weighted average partial pressure, kilopascals.

$$P = \frac{\sum P_i G_i}{\sum G_i}$$

P_i = Individual HAP maximum true vapor pressure, kilopascals, = $X_i \cdot P$, where X_i is the mole fraction of compound i in the liquid.

G_i = Yearly volume of each liquid that contains organic HAP that is transferred at the rack, liters.

i = Each liquid that contains HAP that is transferred at the rack.

8. Section 63.138 is amended by revising the second sentence in paragraph (h) introductory text to read as follows:

§ 63.138 Process wastewater provisions—treatment processes.

(h) * * * The requirements of this paragraph are illustrated in Figure 10 of this subpart.

9. Section 63.144 is amended by adding a sentence to the end of paragraph (b)(3), and by revising paragraphs (b)(5)(i)(B), (b)(5)(i)(D), and (b)(5)(i)(E) to read as follows:

§ 63.144 Process wastewater provisions—test methods and procedures for determining applicability and Group 1/Group 2 determinations.

(b) * * *
(3) * * *. If the water concentration of an individual HAP present in the wastewater is used to develop a total VOHAP average concentration or average VOHAP concentration for that individually speciated HAP, it shall be multiplied by the HAP-specific f_m factor in table 34 of this subpart to obtain the volatile portion of that HAP.

(5) * * *

(i) * * *
(B) Total VOHAP concentration (stream) can be determined by summing the VOHAP concentrations of all individually speciated organic HAP in the wastewater.

$$C_{\text{stream}} = \sum_{i=1}^n C_i$$

Where:

C_{stream} = Total VOHAP concentration of wastewater stream.

n = Number of organic HAP in the wastewater stream.

C_i = VOHAP concentration of individual organic HAP (i) calculated

according to the procedures in paragraph (b)(5)(i)(A) of this section.

(D) If the wastewater stream has a steady flow rate throughout the year, the total VOHAP average concentration for HAP listed on table 9 of this subpart of the wastewater stream shall be calculated by averaging the values calculated in paragraph (b)(5)(i)(B) for the individual samples:

$$C_{\text{stream, avg}} = \frac{\sum_{j=1}^m C_{\text{stream, } j}}{m}$$

Where:

$C_{\text{stream, avg}}$ = Total VOHAP average concentration for HAP listed on table 9 of this subpart of the wastewater stream.

m = Number of samples.

$C_{\text{stream, } j}$ = Total VOHAP concentration of wastewater stream as measured in sample j , calculated according to the procedures in paragraph (b)(5)(i)(B) of this section.

(E) The average VOHAP concentration for each individually speciated organic HAP (i) listed on table 8 of this subpart shall be calculated by averaging the values calculated in paragraph (b)(5)(i)(A) of this section for the individual samples:

$$C_{i, \text{avg}} = \frac{\sum_{j=1}^m C_{i, j}}{m}$$

Where:

$C_{i, \text{avg}}$ = Average VOHAP concentration for each individually speciated organic HAP i listed on table 8 of this subpart.

m = Number of samples.

$C_{i, j}$ = VOHAP concentration of an individual organic HAP i as measured in sample j .

§ 63.145 [Amended]

10. Section 63.145 is amended by revising paragraphs (c)(2)(ii)(E), (f) introductory text, and (g) introductory text to read as follows: § 63.145 Process wastewater provisions—test methods and procedures to determine compliance.

(c) * * *

(2) * * *

(ii) * * *

(E) The HAP mass flow rates of each individual HAP compound entering and exiting the treatment process are calculated as follows:

$$E_b = \frac{K}{n \times 10^6} \left(\sum_{p=1}^n V_{bp} C_{bp} \right)$$

$$E_a = \frac{K}{n \times 10^6} \left(\sum_{p=1}^n V_{ap} C_{ap} \right)$$

Where:

E_b = HAP mass flow rate of an individually speciated HAP compound entering the treatment process, kilograms per hour.

E_a = HAP mass flow rate of an individually speciated HAP compound exiting the treatment process, kilograms per hour.

K = Density of the wastewater stream, kilograms per cubic meter.

n = Number of runs.

V_{bp} = Average volumetric flow rate of wastewater entering the treatment process during each run p , cubic meters per hour.

V_{ap} = Average volumetric flow rate of wastewater exiting the treatment process during each run p , cubic meters per hour.

C_{bp} = Average HAP concentration of an individually speciated HAP in the wastewater stream entering the treatment process during each run p , parts per million by weight.

C_{ap} = Average HAP concentration of an individually speciated HAP in the wastewater stream exiting the treatment process during each run p , parts per million by weight.

(f) A performance test to demonstrate compliance with the mass removal provision for new sources in § 63.138(b)(1)(iii)(C) shall consist of a determination of mass removal required to be achieved, and a determination of mass removal actually achieved. Actual mass removal and compliance shall be determined by the procedure in paragraph (h) of this section. The required mass removal for each Group 1 wastewater stream prior to combination of the streams for treatment shall be determined using the following equation:

$$\text{RMR} = \left(\frac{K}{10^6} V \sum_{j=1}^n C_{j, \text{avg}} \right) 0.99 \cdot 60$$

Where:

RMR = Required mass removal of organic HAP listed in table 8 of this subpart in a Group 1 wastewater stream, in kilograms per hour.

K = Density of the Group 1 wastewater stream, kilograms per liter.

V = Annual average wastewater flow rate of the Group 1 wastewater stream, liters per minute.

n = Number of organic HAP listed in table 8 of this subpart in stream.
 $C_{j,avg}$ = Average HAP concentration of each organic HAP j listed in table 8 of this subpart in the Group 1 wastewater stream at the point of generation, parts per million by weight.
 0.99 = Required fraction removed of organic HAP listed in table 8 of this subpart.

(g) A performance test to demonstrate compliance with the mass removal provisions for new and existing sources in § 63.138(c)(1)(iii)(D) shall consist of a determination of mass removal required to be achieved, and a determination of mass removal actually achieved. Actual mass removal and compliance shall be determined by the procedure in paragraph (h) of this section. The required mass removal for each Group 1 wastewater stream prior to combination of the streams for treatment shall be determined using the following equation:

$$RMR = \frac{K}{10^6} V \sum_{j=1}^n (C_{j,avg} * Fr) * 60$$

Where:

RMR = Required mass removal of table 9 of this subpart organic HAP in a

Group 1 wastewater stream, prior to combination with other Group 1 wastewater streams, kilograms per hour.

K = Density of the Group 1 wastewater stream, kilograms per liter.

V = Annual average wastewater flow rate of the Group 1 wastewater stream, liters per minute.

n = Number of table 9 of this subpart organic HAP compounds in stream.

$C_{j,avg}$ = Average HAP concentration of each organic HAP j listed in table 9 of this subpart in the Group 1 wastewater stream at the point of generation, parts per million by weight.

Fr = Required fraction removed of each compound j (target removal efficiency from table 9 of this subpart).

11. Section 63.147 is amended by revising paragraph (b) to read as follows:

§ 63.147 Process wastewater provisions—recordkeeping.

(b) The owner or operator transferring a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream in accordance with § 63.132(j) shall keep a record of the notice sent to the treatment operator stating that the

wastewater stream or residual contains organic HAP that are required to be managed and treated in accordance with the provisions of this subpart.

12. Section 63.148 is amended by revising paragraph (j) introductory text to read as follows:

§ 63.148. Leak inspection provisions.

(j) The owner or operator shall submit with the reports required by § 63.182(b) of subpart H of this part or with the reports required by § 63.152(c) of this subpart, the information specified in paragraphs (j)(1) through (j)(3) of this section.

13. Section 63.150 is amended by revising paragraphs (g)(5)(i) introductory text, (k) introductory text, and (k)(1) introductory text to read as follows:

§ 63.150 Emissions averaging provisions.

(g) * * *

(5) * * *

(i) The following equation shall be used for each wastewater stream i to calculate EWW_{ic}:

$$EWW_{ic} = (6.0 * 10^{-8}) Q_i H_i \sum_{m=1}^s (1 - Fr_m) Fe_m HAP_{im} + (0.05) (6.0 * 10^{-8}) Q_i H_i \sum_{m=1}^s (Fr_m HAP_{im})$$

Where:

EWW_{ic} = Monthly wastewater stream emission rate if wastewater stream i is controlled by the reference control technology, megagrams per month.

Q_i = Average flow rate for wastewater stream i , as determined by the procedure in § 63.144(c)(3), liters per minute.

H_i = Number of hours during the month that wastewater stream i was generated, hours per month.

s = Total number of organic HAP in wastewater stream i .

Fr_m = Fraction removed of organic HAP m in wastewater, from table 9 of this subpart, dimensionless.

Fe_m = Fraction emitted of organic HAP m in wastewater, from table 34 of this subpart, dimensionless.

HAP_{im} = Average concentration of organic HAP m in wastewater stream i , parts per million by weight.

(k) The owner or operator must demonstrate that the emissions from the emission points proposed to be included in the average will not result in greater hazard or, at the option of the operating permit authority, greater risk to human health or the environment than if the emission points were controlled according to the provisions in §§ 63.113 through 63.148.

(l) This demonstration of hazard or risk equivalency shall be made to the satisfaction of the operating permit authority.

14. Section 63.151 is amended by revising paragraphs (a)(2) introductory text and (a)(6)(ii) and by revising the first sentences in paragraphs (c) introductory text, (c)(1)(i), and (c)(1)(ii) to read as follows:

§ 63.151 Initial notification and implementation plan.

(a) * * *
 (2) An Implementation Plan, unless an operating permit application has been submitted prior to the date the

Implementation Plan is due and the owner or operator has elected to include the information specified in § 63.152(e) in that application.

(6) * * *

(ii) A request for an extension of compliance must include the data described in § 63.6(i)(6)(i) (A), (B), and (D) of subpart A of this part.

(c) Each owner or operator of an existing or new source subject to this subpart must submit an Implementation Plan to the Administrator by the dates specified in paragraphs (c)(1) and (c)(2) of this section unless an operating permit application accompanied by the information specified in § 63.152(e) has been submitted. * * *

(1) * * *

(i) Each owner or operator of an existing source subject to this subpart who elects to comply with § 63.112 by using emissions averaging for any emission points, and who has not submitted an operating permit

application accompanied by the information specified in § 63.152(e) at least 18 months prior to the compliance dates specified in § 63.100 of subpart F of this part, shall develop an Implementation Plan for emissions averaging. * * *

(ii) Each owner or operator of an existing source subject to this subpart who elects to comply with § 63.112 of this subpart by complying with the provisions of §§ 63.113 to 63.148 of this subpart, rather than emissions averaging, for any emission points, and who has not submitted an operating permit application accompanied by the information specified in § 63.152(e) at least 12 months prior to the compliance dates specified in § 63.100 of subpart F of this part, shall develop an Implementation Plan. * * *

15. Section 63.152 is amended by revising paragraph (c)(4) introductory text to read as follows:

§ 63.152 General reporting and continuous records.

(c) * * *

(4) Periodic Reports shall include the information in paragraphs (c)(4)(i) through (c)(4)(iii) of this section, as applicable:

Appendix to Subpart G—[Amended]

Table 6—[Amended]

16. Table 6 in the appendix of subpart G is amended by revising the vapor

pressure for vessel capacity entry "38≤capacity<151" from "13.1" to ≥13.1."

Table 9—[Amended]

17. Table 9 in the appendix to subpart G is amended by adding, in alphabetical order, an entry for "nitrobenzene" with its CAS number of "98953" and its Fr of "0.80".

Table 10—[Amended]

18. Table 10 in the appendix to subpart G is amended by revising the term "vapor pressure (kPa)" to read "Maximum true vapor pressure (kPa)" in the middle column heading.

Table 14b—[Amended]

19. Table 14b in the appendix to subpart G is amended by revising the footnote "a" to read as follows:

" Except when § 63.132(c) is used, annual average total VOHAP concentration in wastewater stream at point of generation, parts per million by weight (ppmw). * * *

Table 15a—[Amended]

20. Table 15a in the appendix to subpart G is amended by revising the footnote "i" to read as follows:

" If the stream is being treated in accordance with the requirements of § 63.138(b), give identification code of treatment unit(s) treating stream. Identification codes should correspond to entries in table 17 of this subpart. * * *

Table 15b—[Amended]

21. Table 15b in the appendix to subpart G is amended by revising the footnotes "d" and "i" to read as follows:

" Except when § 63.132(c) is used, annual average total VOHAP concentration in wastewater stream at point of generation, parts per million by weight (ppmw). * * *

" If stream is being treated in accordance with § 63.138(c), give identification code of treatment unit(s) treating stream. Identification codes should correspond to entries in table 17 of this subpart. * * *

Table 16—[Amended]

22. Table 16 in the appendix to subpart G is amended by revising the footnote "a" to read as follows:

" Flow-weighted annual average total VOHAP concentration of individual or combined stream before exposure to the atmosphere and before combination with streams other than process wastewater from the specific process unit, parts per million by weight (ppmw). * * *

Figure 7—[Amended]

23. Figure 7 in the appendix to subpart G is revised to read as follows:

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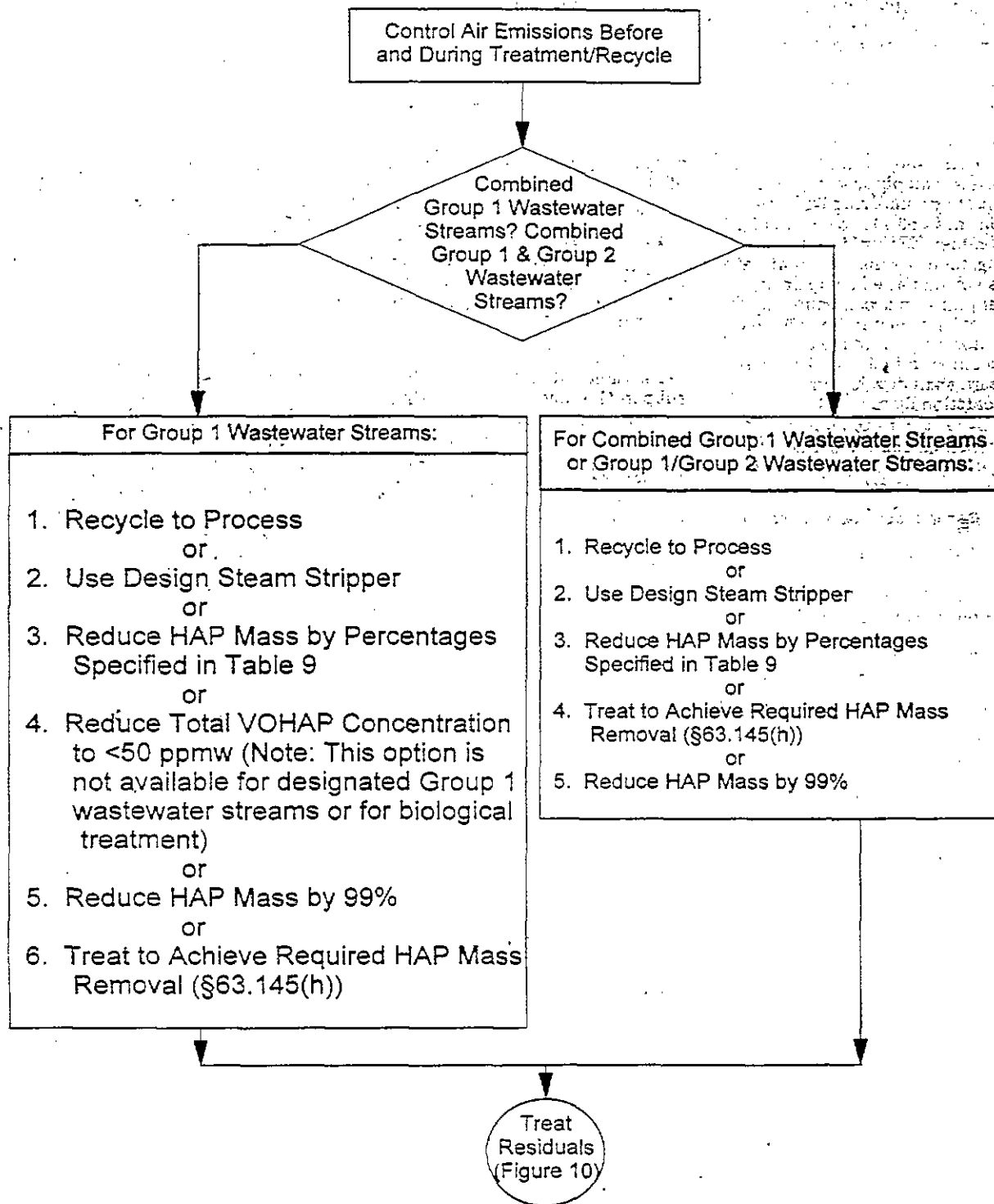


Figure 7. Compliance Options for Control of Table 9 HAP's (Refer to §63.138(c))

Subpart H—National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks

24. Section 63.175 is amended by revising paragraph (d)(4) introductory text to read as follows:

§ 63.175 Quality improvement program for valves.

(d) * * *

(4) The owner or operator must demonstrate progress in reducing the percent leaking valves each quarter the process unit is subject to the requirements of paragraph (d) of this section, except as provided in paragraphs (d)(4)(ii) and (d)(4)(iii) of this section.

25. Section 63.182 is amended by revising paragraphs (a)(6)(ii) and (d)(2)(vii) to read as follows:

§ 63.182 Reporting requirements.

(a) * * *

(6) * * *

(ii) A request for an extension of compliance must include the data described in § 63.6(i)(6)(i) (A), (B), and (D) of subpart A of this part.

(d) * * *

(2) * * *

(vii) The number of agitators for which leaks were detected as described in § 63.173(a) and (b) of this subpart;

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BILLING CODE 5560-50-P

40 CFR Part 70

[AD-FRL-5344-9]

Clean Air Act Final Interim Approval of the Operating Permits Program; Nevada Division of Environmental Protection; Nevada

AGENCY: Environmental Protection Agency ("EPA").

ACTION: Final Interim Approval.

SUMMARY: The EPA is promulgating interim approval of the title V operating permits program submitted by the Nevada Division of Environmental Protection ("NDEP" or "State") for the purpose of complying with federal requirements that mandate that states develop, and submit to EPA, programs for issuing operating permits to all major stationary sources and to certain other sources.

EFFECTIVE DATE: January 11, 1996.

ADDRESSES: A copy of NDEP's submittal and other supporting information used

in developing the final approval are available for inspection (docket number NV-DEP-95-1-OPS) during normal business hours at the following location: U.S. Environmental Protection Agency, Region IX, Air & Toxics Division, 75 Hawthorne Street, San Francisco, CA 94105.

FOR FURTHER INFORMATION CONTACT: Celia Bloomfield (telephone 415/744-1249), Mail Code A-5-2, U.S. Environmental Protection Agency, Region IX, Air & Toxics Division, 75 Hawthorne Street, San Francisco, CA 94105.

SUPPLEMENTARY INFORMATION:

I. Background and Purpose

Title V of the 1990 Clean Air Act Amendments (sections 501-507 of the Clean Air Act ("Act")), and implementing regulations at 40 Code of Federal Regulations ("CFR") part 70, require that states develop and submit operating permits programs to EPA by November 15, 1993, and that EPA act to approve or disapprove each program within 1 year after receiving the submittal. The EPA's program review occurs pursuant to section 502 of the Act and the part 70 regulations, which together outline criteria for approval or disapproval. Where a program substantially, but not fully, meets the requirements of part 70, EPA may grant the program interim approval for a period of up to 2 years. If EPA has not fully approved a program by 2 years after the November 15, 1993 date, or by the end of an interim program, it must establish and implement a federal program.

On August 7, 1995, EPA proposed interim approval of the operating permits program for NDEP ("NPRM"). See 60 FR 40140. In that Federal Register document, EPA also proposed approval of NDEP's interim mechanism for implementing section 112(g) and its program for delegation of section 112 standards as promulgated as they apply to title V and non-title V sources. Public comment was solicited on the three proposed actions, and EPA is responding to those comments in this document and in a separate "Response to Comments" document that is available in the docket at the Regional office.

II. Final Action and Implications

A. Analysis of State Submission and Response to Public Comments

The August 7, 1995 Federal Register notice proposed interim approval of NDEP's title V operating permits program as submitted on February 8, 1995. EPA is aware that NDEP has

revised its implementing regulations since the February 8, 1995 submission; however, those revisions have not been submitted to EPA for approval and are not part of the program being approved in today's final action.

EPA received comments on the NPRM from two commenters: the National Mining Association ("NMA") and NDEP. With one exception, the program deficiencies identified in the NPRM remain unchanged as a result of public comment. Based on public comment and further analysis, the deficiency identified in section II.B.1.(2) of the NPRM has been removed; i.e., NDEP's definition of "regulated air pollutant" is fully approvable. See section II.A.4. below for further discussion. The commenters also provided a few program clarifications which are discussed below. Furthermore, please note that an issue raised as a deficiency in the context of "insignificant activities" and discussed in section II.A.2.c. of the proposed notice has become a separate interim approval issue as a result of public comment. See section II.A.1. for more information. No adverse public comment was received on the proposed approvals of NDEP's program for delegation of section 112 standards as promulgated or transition mechanism for implementing section 112(g), and hence, those approvals have not been altered as a result of public comment.

1. Applicability

In response to a program deficiency identified by EPA in section II.B.1.(10) of the NPRM, NDEP commented that it does not plan to permit *any source* that is subject to the New Source Performance Standard ("NSPS") for new residential wood heaters or the National Emissions Standard for Hazardous Air Pollutants ("NESHAP") for asbestos demolition because the State has not accepted delegation for such standards.

In order to have a fully approvable program, a state must have authority to permit *all major sources* and to write permits that assure compliance with all federal applicable requirements. If under State law NDEP must receive delegation of a federal requirement before it can write that requirement into a permit or assure compliance with that requirement, then NDEP must seek and receive delegation in sufficient time to issue the permit. It is possible for Nevada to obtain delegation of an NSPS or NESHAP requirement solely for title V sources.

In the NPRM, EPA relied on the Nevada Attorney General's legal opinion (dated November 15, 1993) that NDEP has authority to issue permits to all

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 9 and 63

[AD-FRL-5336-2]

National Emission Standards for Hazardous Air Pollutants; Final Standards for Hazardous Air Pollutant Emissions From Wood Furniture Manufacturing Operations

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule and test method.

SUMMARY: This final rule promulgates standards that limit the emissions of hazardous air pollutants (HAP) from existing and new wood furniture manufacturing operations located at major sources. These final standards implement Section 112(d) of the Clean Air Act (CAA), as amended, which require the Administrator to regulate emissions of HAP listed in Section 112(b) of the CAA. The intent of the standards is to protect the public by requiring new and existing major sources to control emissions to the level attainable by implementing the maximum achievable control technology (MACT), taking into consideration the cost of achieving such emission reductions, any nonair quality and other air quality-related health and environmental impacts, and energy requirements.

Many wood furniture manufacturing facilities are major sources of HAP emissions. Individual facilities can emit more than 23 megagrams per year (Mg/yr) (25 tons per year [tons/yr]) of organic HAP, including toluene, xylene, methanol, methyl ethyl ketone, methyl isobutyl ketone, glycol ethers, and formaldehyde. All of these pollutants can cause reversible or irreversible toxic effects following exposure. The potential toxic effects include eye, nose, throat, and skin irritation and blood cell, heart, liver, and kidney damage, as well as reproductive effects. These adverse health effects are associated with a wide range of ambient concentrations and exposure times and are influenced by source-specific characteristics such as emission rates and local meteorological conditions. Health impacts are also dependent on multiple factors that affect human variability such as genetics, age, health status, (e.g., the presence of pre-existing disease), and lifestyle.

The EPA is also finalizing Method 311 with the standards. Method 311 will be

used to assist in demonstrating compliance with the emission limitations.

DATES: This regulation is effective December 7, 1995.

Judicial Review. Under Section 307(b)(1) of the CAA, judicial review of national emission standards for hazardous air pollutants (NESHAP) is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days of today's publication of this final rule. Under Section 307(b)(2) of the CAA, the requirements that are the subject of today's notice may not be challenged later in civil or criminal proceedings brought by the EPA to enforce these requirements.

ADDRESSES:

Docket: Docket No. A-93-10, containing information considered by the EPA in developing the promulgated NESHAP for wood furniture manufacturing operations, is available for public inspection and copying between 8 a.m. and 5:30 p.m., Monday through Friday, except for Federal holidays, at the EPA Air and Radiation Docket and Information Center, Room M1500, U. S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460; telephone (202) 260-7548. A reasonable fee may be charged for copying.

Background Information Document: A background information document (BID) for the promulgated NESHAP may be obtained from the docket; the U.S. EPA Library (MD-35), Research Triangle Park, North Carolina 27711, telephone number (919) 541-2777; or from National Technical Information Services, 5285 Port Royal Road, Springfield, Virginia 22161, telephone (703) 487-4650. Please refer to "National Emission Standards for Hazardous Air Pollutants for Wood Furniture Manufacturing Operations-Background Information for Final Standards" (EPA-453/R-95-018B). The BID contains a summary of changes made to the standards since proposal, public comments made on the proposed wood furniture manufacturing standard, and the EPA responses to the comments.

Electronic versions of the promulgation BID as well as this final rule are available for download from the EPA Technology Transfer Network (TTN), a network of electronic bulletin boards developed and operated by the Office of Air Quality Planning and Standards. The TTN provides information and technology exchange in

various areas of air pollution control. The service is free, except for the cost of a phone call. Dial (919) 541-5742 for data transfer of up to a 14,400 bits per second. If more information on TTN is needed, contact the systems operator at (919) 541-5384.

FOR FURTHER INFORMATION CONTACT: Mr. Paul Almodovar of the Coatings and Consumer Products Group, Emission Standards Division (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone (919) 541-0283.

SUPPLEMENTARY INFORMATION: The information presented in this preamble is organized as follows:

- I. The Standards
- II. Summary of Impacts
- III. Significant Changes to the Proposed Standards
 - A. Public Participation
 - B. Comments on the Proposed Standards
 - C. Significant Changes
 - D. Other Issues
- IV. Administrative Requirements
 - A. Docket
 - B. Paperwork Reduction Act
 - C. Executive Order 12866
 - D. Regulatory Flexibility Act
 - E. Unfunded Mandates Act

I. The Standards

The affected source for the promulgated standards is each facility that is engaged, either in part or in whole, in the manufacture of wood furniture or wood furniture components and that is located at a plant site that is a major source. The promulgated standards include emission limits on the finishing materials and contact adhesives used by the wood furniture industry and work practice standards to reduce emissions from all sources of HAP emissions. To allow owners and operators flexibility in meeting the emission limits, the promulgated standards include multiple options for complying with the limits. A summary of the emission limits and compliance options is presented in Table 1. A summary of the work practice standards is presented in Table 2.

The promulgated standards include methods for affected sources to demonstrate both initial and continuous compliance with both the emission limits and work practice standards. The majority of affected sources will demonstrate compliance through recordkeeping. Affected sources that use a control device to meet the emission limits must monitor the performance of the control device.

TABLE 1.—SUMMARY OF EMISSION LIMITS^a

Emission point	Existing source	New source
Finishing operations:		
(a) Achieve a weighted average VHAP content across all coatings (maximum kg VHAP/kg solids [lb VHAP/lb solids], as applied);	1.0	0.8
(b) Use compliant finishing materials (maximum kg VHAP/kg solids [lb VHAP/lb solids], as applied);		
—Stains	1.0	1.0
—washcoats	1.0	0.8
—sealers	1.0	0.8
—topcoats	1.0	0.8
—basecoats	1.0	0.8
—enamels	1.0	0.8
—thinners (maximum % HAP allowable); or	10.0	10.0
(c) As an alternative, use control device; or	1.0	0.8
(d) Use any combination of (a), (b), and (c)	1.0	0.8
Cleaning operations:		
Strippable spray booth material (maximum VOC content, kg VOC/kg solids [lb VOC/lb solids])	0.8	0.8
Contact adhesives:		
(a) Use compliant contact adhesives (maximum kg VHAP/kg solids [lb VHAP/lb solids], as applied) based on following criteria:		
i. For aerosol adhesives, and for contact adhesives applied to nonporous substrates	NA	NA
ii. For foam adhesives used in products that meet flammability requirements	1.8	0.2
iii. For all other contact adhesives (including foam adhesives used in products that do not meet flammability requirements); or	1.0	0.2
(b) Use a control device	1.0	0.2

^a The limits refer to the VHAP content of the coating, as applied.

^b Washcoats, basecoats, and enamels must comply with the limits presented in this table if they are purchased premade, that is, if they are not formulated onsite by thinning other finishing materials. If they are formulated onsite, they must be formulated using compliant finishing materials, i.e., those that meet the limits specified in this table, and thinners containing no more than 3.0 percent HAP by weight.

^c The control device must operate at an efficiency that is equivalent to no greater than 1.0 kilogram (or 0.8 kilogram) of VHAP being emitted from the affected emission source per kilogram of solids used.

^d There is no limit on the VHAP content of these adhesives.

^e The control device must operate at an efficiency that is equivalent to no greater than 1.0 kilogram (or 0.2 kilogram) of VHAP being emitted from the affected emission source per kilogram of solids used.

TABLE 2.—SUMMARY OF WORK PRACTICE STANDARDS^a

Emission source	Work practice
Finishing Operations	
Transfer equipment leaks	Develop written inspection and maintenance plan to address and prevent leaks. The plan must identify a minimum inspection frequency of 1/month.
Storage containers, including mixing equipment	When such containers are used for HAP or HAP-containing materials, keep covered when not in use.
Application equipment	Discontinue use of air spray guns. ^b
Finishing materials	Demonstrate that usage of HAP of potential concern have not increased except as allowed by proposed standards; document in the formulation assessment plan.
Cleaning Operations	
Guvline cleaning	—Collect cleaning solvent into a closed container. —Cover all containers associated with cleaning when not in use.
Spray booth cleaning	Do not use solvents except as allowed by the rule.
Washoff/general cleaning	—Do not use chemicals that are listed in Table 4 of the rule in concentrations subject to MSDS reporting, as required by OSHA. —Keep washoff tank covered when not in use. —Minimize dripping by tilting and/or rotating part to drain as much solvent as possible and allowing sufficient dry time. —Maintain a log of the quantity and type of solvent used for washoff and cleaning, as well as the quantity of waste solvent shipped offsite, and the fate of this waste (recycling or disposal). —Maintain a log of the number of pieces washed off, and the reason for the wash off.
Miscellaneous	
Operator training	All operators shall be trained on proper application, cleanup, and equipment use. The training program shall be written and retained onsite.
Implementation plan	Develop a plan to implement these work practice standards and maintain onsite.

^a The work practice standards apply to both existing and new major sources.

^b Air guns will be allowed only in the following instances:

—when they are used in conjunction with coatings that emit less than 1.0 kg VOC per kg of solids used;

- touchup and repair under limited conditions;
- when spray is automated;
- when add-on controls are employed;
- if the cumulative application is less than 5 percent of the total gallons of coating applied; or
- if the permitting agency determines that it is economically or technically infeasible to use other application technologies.

Existing affected sources that emit less than 50 tons of HAP in 1996 must comply with the promulgated standards by December 7, 1998. Existing affected sources that emit 50 tons or more of HAP in 1996 must comply with the promulgated standards by November 21, 1997. Existing area sources that become major sources are required to comply within one year after becoming a major source.

New affected sources must comply with the promulgated standards by December 7, 1995 or upon startup, whichever is later. New area sources that become major sources are required to comply with the promulgated standards immediately upon becoming a major source.

II. Summary of Impacts

These standards will reduce nationwide emissions of HAP from wood furniture manufacturing operations by approximately 29,759 Mg/yr (32,795 tons/yr). While the emission limits do not require the use of lower-VOC materials, the work practice standards should reduce the use of VOC containing materials and, therefore, VOC emissions. No significant adverse secondary air, water, solid waste, or energy impacts are anticipated from the promulgation of these standards.

The implementation of this regulation is expected to result in nationwide annualized costs for existing wood furniture manufacturing operations of \$15.3 million with a cost effectiveness of \$513/Mg (\$466/ton). Industry-wide capital costs resulting from the promulgated standards is expected to be approximately \$7.0 million.

III. Significant Changes to the Proposed Standards

A. Public Participation

The standards were proposed in the Federal Register on December 6, 1994 (59 FR 62652). The preamble to the proposed standards discussed the availability of the regulatory text. Public comments were solicited at the time of proposal, and copies of the regulatory text were distributed to interested parties. Electronic versions of the proposed preamble and regulation were made available to interested parties via the TTN (see ADDRESSES section of this preamble).

The preamble to the proposed standards provided the public the opportunity to request a public hearing.

However, a public hearing was not requested. The public comment period for the proposed standards was originally December 6, 1994 to February 21, 1995. Upon request from interested parties the comment period on the proposed standards was extended to March 21, 1995, and the comment period on Method 311 was extended to April 21, 1995. In all, 50 comment letters were received. The comments have been carefully considered, and changes have been made to the proposed standards when determined by the Administrator to be appropriate.

B. Comments on the Proposed Standards

Comments on the proposed standards were received from 50 commenters, composed mainly of States, trade organizations, coating manufacturers, and wood furniture manufacturers. A detailed discussion of these comments and responses can be found in the promulgation BID, which is referred to in the ADDRESSES section of this preamble. The summary of comments and responses in the BID serve as the basis for the revisions that have been made to the standards between proposal and promulgation. Most of the comment letters contained multiple comments. The comments have been divided into the following areas:

1. Applicability;
2. Definitions;
3. Selection of MACT;
4. Emission limits;
5. Work practice requirements;
6. Reporting and recordkeeping requirements;
7. Monitoring requirements;
8. Format of the standard;
9. Compliance provisions and dates;
10. Test Methods; and
11. Miscellaneous.

C. Significant Changes

Several changes have been made since the proposal of these standards. Some of the changes are substantive, while many changes were made to clarify portions of the rule that were unclear to the commenters. A summary of the major changes is presented below.

1. Addition of Category for Incidental Furniture Manufacturers

The EPA received several comments from facilities that manufacture small quantities of furniture at their facility, primarily for onsite use. For example, a

large laboratory facility may have a small shop onsite for manufacturing specialized pieces of laboratory furniture. Many army and navy bases have small woodworking shops onsite.

- The cutoff for finishing material usage included in the proposed standards did not exclude these sources from the standards, because they are major sources due to emissions from other operations. The majority of these commenters indicated that they were concerned about all of the work practice standards and the recordkeeping and reporting requirements associated with the proposed standards. They indicated that the environmental benefit of regulating their facilities under this subpart would be minimal.

The promulgated standards include a category of manufacturers known as incidental furniture manufacturers. An incidental furniture manufacturer is defined in the promulgated standards as "a major source that is primarily engaged in the manufacture of products other than wood furniture or wood furniture components and that uses no more than 100 gallons per month of finishing material or adhesives in the manufacture of wood furniture or wood furniture components." Because the promulgated standard regulates the amount of coating these facilities can use and still be considered incidental furniture manufacturers, emissions from wood furniture manufacturing operations at these facilities will be minimal. The EPA agrees with the commenters that the environmental benefit associated with regulating these facilities would be minimal. Therefore, in the promulgated standards, these facilities are exempted from the standard. However, these facilities will have to maintain records of coating and adhesive usage to demonstrate they are incidental wood furniture manufacturers.

2. Additional Mechanism for Exempting Smaller Sources From the Standards

The proposed standards established applicability cutoffs based on total material usage. Sources using no more than 250 gallons per month, or 3,000 gallons per rolling 12-month period, of finishing materials, adhesives, cleaning solvents, and washoff solvents, including materials used for operations other than wood furniture manufacturing, were automatically exempted from the regulation as long as

they maintained records demonstrating they were below the cutoffs.

In the final rule, these provisions are modified to ensure that they can serve the purpose of exempting a facility from the standard by limiting its potential to emit HAP to area source levels. A facility that otherwise would be a major source can, at the option of the owner or operator, become an area source exempt from other provisions of the rule by meeting the usage limits and associated criteria. The usage limits ensure that the facility's potential and actual emissions of HAP are below the major source thresholds of 10 tons of a single HAP or 25 tons of a combination of HAP. (The EPA expects that the usage limits will keep actual emissions from most facilities substantially below the major thresholds.)

To qualify as an area source under these provisions, at least 90 percent of annual HAP emissions from the plant site must come from finishing materials, adhesives, cleaning solvents, and washoff solvents. If the plant site has sources of HAP emissions other than these materials, the owner or operator must keep any records necessary to demonstrate that the facility meets the 90 percent criterion.

A facility may exceed the users limits and still remain an area source exempt from the standard if, before exceeding the limit, the facility obtains other limits that keep its potential to emit HAP below the major threshold. Otherwise, a facility that exceeds the usage limits becomes a major source and thereafter must comply with the standard starting with the applicable compliance date in the rule. These provisions prevent facilities from vacillating between area-source and major-source status while evading major source requirements. Also, these provisions make it possible from a legal standpoint to consider the usage cutoff levels as limiting a source's potential to emit HAP.

The EPA also requested comment on other mechanisms that could be used to exempt smaller sources from the regulation. Unless such a mechanism is provided in the standards or by State and local permitting authorities, many of these smaller facilities will have to enter the Title V permitting process in order to obtain a Federally enforceable limitation on their potential to emit. This would impose a substantial burden on many smaller facilities and on the State and local permitting agencies.

In response to the EPA request for comment, several commenters indicated that a reasonable mechanism to exempt these sources would be to establish an applicability cutoff based on total emissions of HAP materials, instead of

material usage in gallons. The EPA has included such a mechanism in the promulgated standards, again structured as an optional way for facilities to limit their potential to emit. Facilities that otherwise would be major sources are considered area sources if they meet the limits and criteria in the rule. To qualify, a facility must use materials containing no more than 4.5 Mg (5 tons) of any one HAP per rolling 12-month period or no more than 11.4 Mg (12.5 tons) of any combination of HAP per rolling 12-month period, including materials from source categories other than wood furniture. Also, at least 90 percent of their plantwide emissions per rolling 12-month period need to be associated with the manufacture of wood furniture or wood furniture components. These sources need to maintain records that demonstrate that annual emissions do not exceed these levels, including monthly usage records for all finishing, gluing, cleaning, and washoff materials; certified product data sheets for these materials; and any other records necessary to document emissions from source categories other than wood furniture.

3. Inclusion of Custom Cabinet Manufacturers Operating Under Standard Industrial Classification (SIC) Code 5712

Under the proposed standards, sources under any of nine SIC codes were considered wood furniture manufacturers. The SIC codes included 2434, which includes manufacturers of kitchen cabinets. However, one commenter pointed out that manufacturers of custom kitchen cabinets are included in SIC Code 5712. The commenter felt that the operations at these sources were not significantly different than those operating under SIC Code 2434 and that these sources should also be subject to the standards. The EPA agrees with the commenter, and the promulgated standards include custom kitchen cabinet manufacturers operating under SIC Code 5712.

4. Inclusion of Definitions for Wood Furniture and Wood Furniture Component

Two commenters requested that the EPA include definitions for "wood furniture" and "wood furniture component" in the rule. The EPA agrees that these definitions will help clarify which sources are subject to the rule and has included these definitions in the final rule.

5. Change in Title of the Formulation Assessment Plan

Because the formulation assessment plan only applies to VHAP of potential concern that are present in finishing materials, one commenter suggested that the title be changed to formulation assessment plan for finishing operations. The EPA agrees that this clarifies the scope of the formulation assessment plan and in the final rule the title is changed to Formulation Assessment plan for Finishing Operations.

6. Timeframe for Submitting Initial Notification

Several commenters requested that the date for submission of the initial notification be extended. One commenter requested that the date for submittal of the initial notification be extended to 270 days and two commenters requested that the date be extended to 180 days. The EPA agrees with the commenters and has extended the date for submittal of the initial notification to 270 days after the effective date of the final rule.

7. Compliance Options

The proposed rule allowed facilities to use one of four methods to demonstrate compliance with the standard: compliant coatings, averaging, an add-on control device, or a combination of compliant coatings and an add-on control device. The proposed rule did not allow facilities to use a combination of an add-on control device and averaging. One commenter pointed out that this should also be a compliance option. In some facilities, emissions from only one or two finishing lines will be directed to the control device. The emission reductions from these lines will typically be much greater than the reductions required for a facility using compliant coatings. These facilities would like to be allowed to average these "overcontrolled" finishing lines with uncontrolled lines. The EPA believes this is consistent with the regulatory negotiation agreement and with the CAA, both of which state that a facility should be able to use any compliance method that they can demonstrate achieves an equivalent level of reductions. Therefore, the EPA has included this compliance option in the final rule.

8. Guidelines for Determining Capture Efficiency

Since the wood furniture NESHAP was proposed, the EPA has released additional guidance on determining capture efficiency. This guidance allows facilities to use any method of

determining the capture efficiency of a control system as long as the data generated from the method meets one of two sets of criteria. These criteria are known as the data quality objective (DQO) approach and the lower confidence limit (LCL) approach. As one commenter requested, this new guidance has been included in the final rule.

9. Clarification of Compliance Dates

Under the proposed rule, the compliance date for sources emitting less than 50 tons of HAP per year is three years after the effective date of the rule. For sources emitting more than 50 tons of HAP per year, the compliance date is November 21, 1997. As one commenter pointed out, however, the proposed rule did not include guidance as to which year's emissions should be used to determine the compliance date for a facility. In the final rule, 1996 is identified as the baseline year for determining a facility's compliance date. If a facility's emissions in 1996 are less than 50 tons of HAP then the compliance date for that facility is December 7, 1998. If the facility's emissions are 50 tons of HAP or more in 1996 then the compliance date for the facility is November 21, 1997.

10. Clarification of Definitions and Emission Limits for Adhesives

Several commenters requested clarification of some of the definitions related to adhesives and also clarification as to which adhesives are subject to the emission limits. One commenter indicated they did not believe adhesives should be considered coatings. The EPA agrees and has changed the definition of coating so that it no longer includes adhesives. The definition of adhesive was also changed to clarify that adhesives should not be considered coatings or finishing materials under this subpart.

Several commenters also indicated that the rule should more accurately reflect that contact adhesives are the only types of adhesives that are subject to an emission limit under this subpart. Several changes have been made in the definitions, § 63.801, and in the summary of emission limits, § 63.802, that should clarify this issue.

D. Other Issues

During the EPA work group review of the final rule, two of the EPA offices represented on the work group indicated they had issues that they believed needed to be addressed in the preamble. Both EPA offices recognized that this rule was developed under a regulatory negotiation approach, and

they both indicated that they did not want these issues to impact negatively on the consensus achieved during the regulatory negotiation. These issues are addressed in the following paragraphs.

The EPA Office of Research and Development (ORD) expressed concern about the differential use of toxicity information in the regulation. In particular, the ORD was concerned about the prohibition of Class A and B₁/B₂ carcinogens in cleaning and washoff solvents. The ORD was concerned that this prohibition implies that these pollutants are "worse" than other HAP, which may cause serious chronic health effects and/or life-threatening acute effects. Concern was also expressed that the regulation draws a line between pollutants with "B" and "C" designations, when the scientific evidence may not support such a clear distinction. Because this regulation was developed through a negotiation process, ORD agreed to include this provision in the final regulation. However, it is important to emphasize that the decision to include such a provision in this specific rulemaking does not represent a generic policy decision on the use of weight-of-evidence designations.

The second issue, which was raised by the Office of Pollution Prevention and Toxics (OPPT), was also addressed in the preamble to the proposed rule. The preamble to the proposed rule stressed that urea-formaldehyde resins, which are used extensively in gluing operations in the wood furniture and are a source of formaldehyde emissions, are not subject to an emission limit under this regulation. During the development of the regulation, the EPA, working closely with urea-formaldehyde resin manufacturers and the wood furniture industry, decided that it would be more appropriate to regulate emissions from these adhesives under the NESHAP for plywood and particleboard manufacturing. The OPPT has agreed with this approach, but they indicated that the preamble to the final rule should reiterate the EPA intention to regulate these adhesives under a future rulemaking. Therefore, while the EPA is not regulating emissions from urea-formaldehyde resins at wood furniture manufacturing facilities under this rulemaking, emissions from these resins will be regulated under the NESHAP for plywood and particleboard manufacturing.

IV. Administrative Requirements

A. Docket

The docket is an organized and complete file of all the information

considered by the EPA in the development of this rule. The docket is a dynamic file; material is added throughout the rulemaking process. The docketing system is intended to allow members of the public to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the statement of the basis and purpose of the proposed and promulgated standards and the EPA responses to significant comments, the contents of the docket will serve as the record in case of judicial review [Section 307(d)(7)(A)].

B. Paperwork Reduction Act

The Office of Management and Budget (OMB) has approved the information collection requirements contained in this rule under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* and has assigned OMB control number 2060-0324.

The information required to be collected by this rule is necessary to identify the regulated entities who are subject to the rule and to ensure their compliance with the rule. The recordkeeping and reporting requirements are mandatory and are being established under authority of Section 114 of the CAA. All information submitted to the EPA for which a claim of confidentiality is made will be safeguarded according to the EPA policies set forth in Title 40, Part 2, subpart B—Confidentiality of Business Information.

The total annual reporting and recordkeeping burden for this collection averaged over the first three years is estimated to be 140,603 hours per year. The average burden, per respondent, is 187 hours per year. The rule requires an initial one-time notification from each respondent and subsequent reports/ notification would have to be submitted semiannually. There would be an estimated 750 respondents to the collection requirements. This estimate 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.

Send comments on the EPA need for this information, the accuracy of the

provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, OPPE Regulatory Information Division: U.S. Environmental Protection Agency (2136); 401 M St. SW.; Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th St. NW; Washington, DC 20503; marked "Attention: Desk Officer for EPA." Include the OMB control number in any correspondence.

C. Administrative Designation and Regulatory Analysis

Under Executive Order 12866 [58 FR 51735 (October 4, 1993)], the EPA is required to judge whether a regulation is "significant" and therefore subject to OMB review and the requirements of this Executive Order to prepare a regulatory impact analysis (RIA). The 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 the Executive Order 12866, OMB has notified the 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.

D. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires the EPA to consider potential impacts of proposed regulations on small business "entities." If a preliminary analysis indicates that a proposed regulation would have a significant economic impact on 20 percent or more of small entities, then a regulatory flexibility analysis must be performed. The EPA analysis of these impacts was presented in the preamble

to the proposed rule (59 FR 62652), and a copy of the Economic Impact Regulatory Flexibility Analysis is included in the docket. The final rule includes no changes that will be deleterious to small businesses.

E. Unfunded Mandates 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 to State, local, and Tribal governments, in the aggregate, or to the private sector, of \$100 million or more in any one year. Before promulgating an EPA rule for which a written statement is required, 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.

The EPA has determined that the action promulgated today does not include 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. Therefore, the requirements of the Unfunded Mandates Act do not apply to this action.

List of Subjects in 40 CFR Parts 9 and 63

Environmental Protection, Air Pollution Control, Hazardous Substances, Wood Furniture Manufacturing, Reporting and Recordkeeping Requirements.

Dated: November 14, 1995.

Carol M. Browner,
Administrator.

For the reasons set out in the preamble, Title 40, Chapter I, of the Code of Federal Regulations is amended as set forth below:

PART 9—[AMENDED]

1. The authority citation for part 9 continues to read as follows:

Authority: 7 U.S.C. 135 *et seq.*, 135-136y; 15 U.S.C. 2001, 2003, 2005, 2006, 2601-2671; 21 U.S.C. 331j; 346a, 348; 31 U.S.C. 9701; 33 U.S.C. 1251 *et seq.*, 1311, 1313d, 1314, 1321, 1326, 1330, 1344, 1345 (d) and (e), 1361; E.O. 11735, 38 FR 21234, 3 CFR, 1971-1975, Comp. p. 973; 42 U.S.C. 241, 242b, 243, 246, 300f, 300g, 300g-1, 300g-2, 300g-3, 300g-4, 300g-5, 300g-6, 300j-1, 300j-2, 300j-3, 300j-4, 300j-9, 1857 *et seq.*, 6901-G992k, 7401-7671q, 7542, 9601-9657, 11023, 11048.

2. Section 9.1 is amended by adding in numerical order a new entry to the table under the indicated heading to read as follows:

§ 9.1 OMB approvals under the Paperwork Reduction Act.

40 CFR citation	OMB control No.
National Emission Standards for Hazardous Air Pollutants for Source Categories: 63-806-63-807	2060-0324

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 JJ to read as follows:

Subpart JJ—National Emission Standards for Wood Furniture Manufacturing Operations

- Sec.
- 63.800 Applicability.
 - 63.801 Definitions.
 - 63.802 Emission limits.
 - 63.803 Work practice standards.
 - 63.804 Compliance procedures and monitoring requirements.
 - 63.805 Performance test methods.
 - 63.806 Recordkeeping requirements.
 - 63.807 Reporting requirements.
 - 63.808 Delegation of authority.
 - 63.809-63.819 [Reserved].

Tables to Subpart JJ

Subpart JJ—National Emission Standards for Wood Furniture Manufacturing Operations**§ 63.800 Applicability.**

(a) The affected source to which this subpart applies is each facility that is engaged, either in part or in whole, in the manufacture of wood furniture or wood furniture components and that is located at a plant site that is a major source as defined in 40 CFR part 63.2. The owner or operator of a source that meets the criteria for an incidental furniture manufacturer shall maintain purchase or usage records demonstrating the source meets the criteria specified in § 63.801 of this subpart, but the source shall not be subject to any other provisions of this subpart.

(b) A source that complies with the limits and criteria specified in paragraphs (b)(1), (b)(2), or (b)(3) of this section is an area source for the purposes of this subpart and is not subject to any other provision of this rule, provided that: In the case of paragraphs (b)(1) and (b)(2), finishing materials, adhesives, cleaning solvents and washoff solvents account for at least 90 percent of annual HAP emissions at the plant site, and if the plant site has HAP emissions that do not originate from the listed materials, the owner or operator keeps any records necessary to demonstrate that the 90 percent criterion is met. A source that initially relies on the limits and criteria specified in paragraphs (b)(1), (b)(2), and (b)(3) to become an area source, but subsequently exceeds the relevant limit (without first obtaining and complying with other limits that keep its potential to emit hazardous air pollutants below major source levels), becomes a major source and must comply thereafter with all applicable provisions of this subpart starting on the applicable compliance date in § 63.800. Nothing in this paragraph (b) is intended to preclude a source from limiting its potential to emit through other appropriate mechanisms that may be available through the permitting authority.

(1) The owner or operator of the source uses no more than 250 gallons per month, for every month, of coating, gluing, cleaning, and washoff materials at the source, including materials used for source categories other than wood furniture (surface coating), but excluding materials used in routine janitorial or facility grounds maintenance, personal uses by employees or other persons, the use of products for the purpose of maintaining

motor vehicles operated by the facility, or the use of toxic chemicals contained in intake water (used for processing or noncontact cooling) or intake air (used either as compressed air or for combustion). The owner or operator shall maintain records of the total gallons of coating, gluing, cleaning, and washoff materials used each month, and upon request submit such records to the Administrator. These records shall be maintained for five years.

(2) The owner or operator of the source uses no more than 3,000 gallons per rolling 12-month period, for every 12-month period, of coating, gluing, cleaning, and washoff materials at the source, including materials used for source categories other than wood furniture (surface coating), but excluding materials used in routine janitorial or facility grounds maintenance, personal uses by employees or other persons, the use of products for the purpose of maintaining motor vehicles operated by the facility, or the use of toxic chemicals contained in intake water (used for processing or noncontact cooling) or intake air (used either as compressed air or for combustion). A rolling 12-month period includes the previous 12 months of operation. The owner or operator of the source shall maintain records of the total gallons of coating, gluing, cleaning, and washoff materials used each month and the total gallons used each previous month, and upon request submit such records to the Administrator. Because records are needed over the previous set of 12 months, the owner or operator shall keep monthly records beginning no less than one year before the compliance date specified in § 63.800(e). Records shall be maintained for five years.

(3) The source uses materials containing no more than 4.5 Mg (5 tons) of any one HAP per rolling 12-month period or no more than 11.4 Mg (12.5 tons) of any combination of HAP per rolling 12-month period, including materials from source categories other than wood furniture; and at least 90 percent of the plantwide emissions per rolling 12-month period are associated with the manufacture of wood furniture or wood furniture components. The owner or operator shall maintain records that demonstrate that annual emissions do not exceed these levels, including monthly usage records for all finishing, gluing, cleaning, and washoff materials; certified product data sheets for these materials; and any other records necessary to document emissions from source categories other than wood furniture and upon request

submit such records to the Administrator. These records shall be maintained for five years.

(c) This subpart does not apply to research or laboratory facilities as defined in § 63.801.

(d) Owners or operators of affected sources shall also comply with the requirements of subpart A of this part (General Provisions), according to the applicability of subpart A to such sources, as identified in Table 1 of this subpart.

(e) The compliance date for existing affected sources that emit less than 50 tons per year of HAP in 1996 is December 7, 1998. The compliance date for existing affected sources that emit 50 tons or more of hazardous air pollutants in 1996 is November 21, 1997. The owner or operator of an existing area source that increases its emissions of (or its potential to emit) HAP such that the source becomes a major source that is subject to this subpart shall comply with this subpart one year after becoming a major source.

(f) New affected sources must comply with the provisions of this standard immediately upon startup or by December 7, 1995, whichever is later. New area sources that become major sources shall comply with the provisions of this standard immediately upon becoming a major source.

(g) Reconstructed affected sources are subject to the requirements for new affected sources. The costs associated with the purchase and installation of air pollution control equipment (e.g., incinerators, carbon adsorbers, etc.) are not considered in determining whether the facility has been reconstructed, unless the control equipment is required as part of the process (e.g., product recovery). Additionally, the costs of retrofitting and replacement of equipment that is installed specifically to comply with this subpart are not considered reconstruction costs. For example, an affected source may convert to waterborne coatings to meet the requirements of this subpart. At most facilities, this conversion will require the replacement of existing storage tanks, mix equipment, and transfer lines. The cost of replacing the equipment is not considered in determining whether the facility has been reconstructed.

§ 63.801 Definitions.

(a) All terms used in this subpart that are not defined below have the meaning given to them in the CAA and in subpart A (General Provisions) of this part.

Adhesive means any chemical substance that is applied for the purpose

of bonding two surfaces together other than by mechanical means. Under this subpart, adhesives shall not be considered coatings or finishing materials. 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.

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

Aerosol adhesive means an adhesive that is dispensed from a pressurized container as a suspension of fine solid or liquid particles in gas.

Affected source means a wood furniture manufacturing facility that is engaged, either in part or in whole, in the manufacture of wood furniture or wood furniture components and that is located at a plant site that is a major source as defined in 40 CFR part 63.2, excluding sources that meet the criteria established in § 63.800(a), (b) and (c) of this subpart.

Alternative method means any method of sampling and analyzing for an air pollutant that is not a reference or equivalent method but has been demonstrated to the Administrator's satisfaction to, in specific cases, produce results adequate for a determination of compliance.

As applied means the HAP and solids content of the coating or contact adhesive that is actually used for coating or gluing the substrate. It includes the contribution of materials used for in-house dilution of the coating or contact adhesive.

Basecoat means a coat of colored material, usually opaque, that is applied before graining inks, glazing coats, or other opaque finishing materials, and is usually topcoated for protection.

Baseline conditions means the conditions that exist prior to an affected source implementing controls, such as a control system.

Building enclosure means a building housing a process that meets the requirements of a temporary total enclosure. The EPA Method 204E is used to identify all emission points from the building enclosure and to determine which emission points must be tested. For additional information see *Guidelines for Determining Capture Efficiency*, January 1994. Docket No. A-93-10, Item No. IV-B-1.

Capture device means a hood, enclosed room, floor sweep, or other means of collecting solvent emissions or other pollutants into a duct so that the pollutant can be directed to a pollution

control device such as an incinerator or carbon adsorber.

Capture efficiency means the fraction of all organic vapors generated by a process that are directed to a control device.

Certified product data sheet (CPDS) means documentation furnished by coating or adhesive suppliers or an outside laboratory that provides the HAP content of a finishing material, contact adhesive, or solvent, by percent weight, measured using the EPA Method 311 (as promulgated in this subpart), or an equivalent or alternative method (or formulation data if the coating meets the criteria specified in § 63.805(a)); the solids content of a finishing material or contact adhesive by percent weight, determined using data from the EPA Method 24, or an alternative or equivalent method (or formulation data if the coating meets the criteria specified in § 63.805(a)); and the density, measured by EPA Method 24 or an alternative or equivalent method. Therefore, the reportable HAP content should represent the maximum aggregate emissions potential of the finishing material, adhesive, or solvent in concentrations greater than or equal to 1.0 percent by weight or 0.1 percent for HAP that are carcinogens, as defined by the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR part 1910), as formulated. The purpose of the CPDS is to assist the affected source in demonstrating compliance with the emission limitations presented in § 63.802.

(Note: Because the optimum analytical conditions under EPA Method 311 vary by coating, the coating or adhesive supplier may also choose to include on the CPDS the optimum analytical conditions for analysis of the coating, adhesive, or solvent using EPA Method 311. Such information may include, but not be limited to, separation column, oven temperature, carrier gas, injection port temperature, extraction solvent, and internal standard.)

Cleaning operations means operations in which organic solvent is used to remove coating materials or adhesives from equipment used in wood furniture manufacturing operations.

Coating means a protective, decorative, or functional film applied in a thin layer to a surface. Such materials include, but are not limited to, paints, topcoats, varnishes, sealers, stains, washcoats, basecoats, enamels, inks, and temporary protective coatings.

Coating application station means the part of a coating operation where the coating is applied, e.g., a spray booth.

Coating operation means those activities in which a coating is applied

to a substrate and is subsequently air-dried, cured in an oven, or cured by radiation.

Coating solids (or solids) means the part of the coating which remains after the coating is dried or cured; solids content is determined using data from the EPA Method 24, or an equivalent or alternative method.

Compliant coating/contact adhesive means a finishing material, contact adhesive, or strippable booth coating that meets the emission limits specified in Table 3 of this subpart.

Contact adhesive means an adhesive that is applied to two substrates, dried, and mated under only enough pressure to result in good contact. The bond is immediate and sufficiently strong to hold pieces together without further clamping, pressure, or airing.

Continuous coater means a finishing system that continuously applies finishing materials onto furniture parts moving along a conveyor. Finishing materials that are not transferred to the part are recycled to a reservoir. Several types of application methods can be used with a continuous coater including spraying, curtain coating, roll coating, dip coating, and flow coating.

Continuous compliance means that the affected source is meeting the emission limitations and other requirements of the rule at all times and is fulfilling all monitoring and recordkeeping provisions of the rule in order to demonstrate compliance.

Control device means any equipment that reduces the quantity of a pollutant that is emitted to the air. The device may destroy or secure the pollutant for subsequent recovery. Includes, but is not limited to, incinerators, carbon adsorbers, and condensers.

Control device efficiency means the ratio of the pollutant released by a control device and the pollutant introduced to the control device.

Control system means the combination of capture and control devices used to reduce emissions to the atmosphere.

Conventional air spray means a spray coating method in which the coating is atomized by mixing it with compressed air and applied at an air pressure greater than 10 pounds per square inch (gauge) at the point of atomization. Airless and air assisted airless spray technologies are not conventional air spray because the coating is not atomized by mixing it with compressed air. Electrostatic spray technology is also not considered conventional air spray because an electrostatic charge is employed to attract the coating to the workpiece.

Data quality objective (DQO) approach means a set of approval

criteria that must be met so that data from an alternative test method can be used in determining the capture efficiency of a control system. For additional information, see *Guidelines for Determining Capture Efficiency*, January 1994. (Docket No. A-93-10, Item No. IV-B-1).

Day means a period of 24 consecutive hours beginning at midnight local time, or beginning at a time consistent with a facility's operating schedule.

Disposed offsite means sending used organic solvent or coatings outside of the facility boundaries for disposal.

Emission means the release or discharge, whether directly or indirectly, of HAP into the ambient air.

Enamel means a coat of colored material, usually opaque, that is applied as a protective topcoat over a basecoat, primer, or previously applied enamel coats. In some cases, another finishing material may be applied as a topcoat over the enamel.

Equipment leak means emissions of volatile hazardous air pollutants from pumps, valves, flanges, or other equipment used to transfer or apply coatings, adhesives, or organic solvents.

Equivalent method means any method of sampling and analyzing for an air pollutant that has been demonstrated to the Administrator's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specific conditions.

Finishing material means a coating used in the wood furniture industry. Such materials include, but are not limited to, stains, basecoats, washcoats, enamels, sealers, and topcoats.

Finishing operation means those operations in which a finishing material is applied to a substrate and is subsequently air-dried, cured in an oven, or cured by radiation.

Foam adhesive means a contact adhesive used for gluing foam to fabric, foam to foam, and fabric to wood.

Gluing operation means those operations in which adhesives are used to join components, for example, to apply a laminate to a wood substrate or foam to fabric.

Incidental wood furniture manufacturer means a major source that is primarily engaged in the manufacture of products other than wood furniture or wood furniture components and that uses no more than 100 gallons per month of finishing material or adhesives in the manufacture of wood furniture or wood furniture components.

Incinerator means, for the purposes of this industry, an enclosed combustion device that thermally oxidizes volatile organic compounds to CO and CO₂. This

term does not include devices that burn municipal or hazardous waste material.

Janitorial maintenance means the upkeep of equipment or building structures that is not directly related to the manufacturing process, for example, cleaning of restroom facilities.

Lower confidence limit (LCL) approach means a set of approval criteria that must be met so that data from an alternative test method can be used in determining the capture efficiency of a control system. For additional information, see *Guidelines for Determining Capture Efficiency*, January 1994. (Docket No. A-93-10, Item No. IV-B-1).

Material safety data sheet (MSDS) means the documentation required for hazardous chemicals by the Occupational Safety and Health Administration (OSHA) Hazard Administration Standard (29 CFR Part 1910) for a solvent, cleaning material, contact adhesive, coating, or other material that identifies select reportable hazardous ingredients of the material, safety and health considerations, and handling procedures.

Noncompliant coating/contact adhesive means a finishing material, contact adhesive, or strippable booth coating that has a VHAP content (VOC content for the strippable booth coating) greater than the emission limitation presented in Table 3 of this subpart.

Nonporous substrate means a surface that is impermeable to liquids. Examples include metal, rigid plastic, flexible vinyl, and rubber.

Normally closed container means a container that is closed unless an operator is actively engaged in activities such as emptying or filling the container.

Operating parameter value means a minimum or maximum value established for a control device or process parameter that, 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 emission limit.

Organic solvent means a volatile organic liquid that is used for dissolving or dispersing constituents in a coating or contact adhesive, adjusting the viscosity of a coating or contact adhesive, or cleaning equipment. When used in a coating or contact adhesive, the organic solvent evaporates during drying and does not become a part of the dried film.

Overall control efficiency means the efficiency of a control system, calculated as the product of the capture and control device efficiencies, expressed as a percentage.

Permanent total enclosure means a permanently installed enclosure that completely surrounds a source of emissions such that all emissions are captured and contained for discharge through a control device. For additional information, see *Guidelines for Determining Capture Efficiency*, January 1994. (Docket No. A-93-10, Item No. IV-B-1).

Recycled onsite means the reuse of an organic solvent in a process other than cleaning or washoff.

Reference method means any method of sampling and analyzing for an air pollutant that is published in Appendix A of 40 CFR part 60.

Research or laboratory facility means any stationary source whose primary purpose is to conduct research and development to develop 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 manner.

Responsible official has the meaning given to it in 40 CFR part 70, State Operating Permit Programs (Title V permits).

Sealer means a finishing material used to seal the pores of a wood substrate before additional coats of finishing material are applied. Special purpose finishing materials that are used in some finishing systems to optimize aesthetics are not sealers.

Solvent means a liquid used in a coating or contact adhesive to dissolve or disperse constituents and/or to adjust viscosity. It evaporates during drying and does not become a part of the dried film.

Stain means any color coat having a solids content by weight of no more than 8.0 percent that is applied in single or multiple coats directly to the substrate. It includes, but is not limited to, nongrain raising stains, equalizer stains, prestains, sap stains, body stains, no-wipe stains, penetrating stains, and toners.

Storage containers means vessels or tanks, including mix equipment, used to hold finishing, gluing, cleaning, or washoff materials.

Strippable spray booth material means a coating that:

(1) Is applied to a spray booth wall to provide a protective film to receive overspray during finishing operations;

(2) That is subsequently peeled off and disposed; and

(3) By achieving (1) and (2), reduces or eliminates the need to use organic solvents to clean spray booth walls.

Substrate means the surface onto which a coating or contact adhesive is

applied (or into which a coating or contact adhesive is impregnated).

Temporary total enclosure means an enclosure that meets the requirements of § 63.805(e)(1) (i) through (iv) and is not permanent, but constructed only to measure the capture efficiency of pollutants emitted from a given source. Additionally, any exhaust point from the enclosure shall be at least four equivalent duct or hood diameters from each natural draft opening. For additional information, see *Guidelines for Determining Capture Efficiency*, January 1994. (Docket No. A-93-10, Item No. IV-B-1).

Thinner means a volatile liquid that is used to dilute coatings or contact adhesives (to reduce viscosity, color strength, and solids, or to modify drying conditions).

Topcoat means the last film-building finishing material that is applied in a finishing system.

Touchup and repair means the application of finishing materials to cover minor finishing imperfections.

VHAP means any volatile hazardous air pollutant listed in Table 2 to Subpart J).

VHAP of potential concern means any VHAP from the nonthreshold, high concern, or unrankable list in Table b of this subpart.

Volatile organic compound (VOC) means any organic compound which participates in atmospheric photochemical reactions, that is, any organic compound other than those which the Administrator designates as having negligible photochemical reactivity. A VOC may be measured by a reference method, an equivalent method, an alternative method, or by procedures specified under any rule. A reference method, an equivalent method, or an alternative method, however, may also measure nonreactive organic compounds. In such cases, the owner or operator may exclude the nonreactive organic compounds when determining compliance with a standard. For a list of compounds that the Administrator has designated as having negligible photochemical reactivity, refer to 40 CFR part 51.10.

Washcoat means a transparent special purpose finishing material having a solids content by weight of 12.0 percent by weight or less. Washcoats are applied over initial staining to protect, to control color, and to stiffen the wood fibers in order to aid sanding.

Washoff operations means those operations in which organic solvent is used to remove coating from wood furniture or a wood furniture component.

Wood furniture means any product made of wood, a wood product such as rattan or wicker, or an engineered wood product such as particleboard that is manufactured under any of the following standard industrial classification codes: 2434, 2511, 2512, 2517, 2519, 2521, 2531, 2541, 2599, or 5712.

Wood furniture component means any part that is used in the manufacture of wood furniture. Examples include, but are not limited to, drawer sides, cabinet doors, seat cushions, and laminated tops.

Wood furniture manufacturing operations means the finishing, gluing, cleaning, and washoff operations associated with the production of wood furniture or wood furniture components.

(b) The nomenclature used in this subpart has the following meaning:

(1) A_k = the area of each natural draft opening (k) in a total enclosure, in square meters.

(2) C_c = the VHAP content of a finishing material (c), in kilograms of volatile hazardous air pollutants per kilogram of coating solids (kg VHAP/kg solids), as supplied. Also given in pounds of volatile hazardous air pollutants per pound of coating solids (lb VHAP/lb solids).

(3) C_a = the concentration of VHAP in gas stream (j) exiting the control device, in parts per million by volume.

(4) C_{bi} = the concentration of VHAP in gas stream (i) entering the control device, in parts per million by volume.

(5) C_{di} = the concentration of VHAP in gas stream (i) entering the control device from the affected source, in parts per million by volume.

(6) C_{ke} = the concentration of VHAP in uncontrolled gas stream (k) emitted directly to the atmosphere from the affected source, in parts per million by volume.

(7) E = the emission limit achieved by an emission point or a set of emission points, in kg VHAP/kg solids (lb VHAP/lb solids).

(8) F = the control device efficiency, expressed as a fraction.

(9) FV = the average inward face velocity across all natural draft openings in a total enclosure, in meters per hour.

(10) G = the VHAP content of a contact adhesive, in kg VHAP/kg solids (lb VHAP/lb solids), as applied.

(11) M = the mass of solids in finishing material used monthly, kg solids/month (lb solids/month).

(12) N = the capture efficiency, expressed as a fraction.

(13) Q_{ai} = the volumetric flow rate of gas stream (i) entering the control device, in dry standard cubic meters per hour.

(14) Q_{bi} = the volumetric flow rate of gas stream (i) entering the control device, in dry standard cubic meters per hour.

(15) Q_{ci} = the volumetric flow rate of gas stream (i) entering the control device from the emission point, in dry standard cubic meters per hour.

(16) Q_{ke} = the volumetric flow rate of uncontrolled gas stream (k) emitted directly to the atmosphere from the emission point, in dry standard cubic meters per hour.

(17) Q_{in} = the volumetric flow rate of gas stream (i) entering the total enclosure through a forced makeup air duct, in standard cubic meters per hour (wet basis).

(18) Q_{out} = the volumetric flow rate of gas stream (j) exiting the total enclosure through an exhaust duct or hood, in standard cubic meters per hour (wet basis).

(19) R = the overall efficiency of the control system, expressed as a percentage.

(20) S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials.

(21) W = the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

(22) ac = after the control system is installed and operated.

(23) bc = before control.

§ 63.802 Emission limits.

(a) Each owner or operator of an existing affected source subject to this subpart shall:

(1) Limit VHAP emissions from finishing operations by meeting the emission limitations for existing sources presented in Table 3 of this subpart, using any of the compliance methods in § 63.804(a). To determine VHAP emissions from a finishing material containing formaldehyde or styrene, the owner or operator of the affected source shall use the methods presented in § 63.803(l)(2) for determining styrene and formaldehyde usage.

(2) Limit VHAP emissions from contact adhesives by achieving a VHAP limit for contact adhesives based on the following criteria:

(i) For foam adhesives (contact adhesives used for upholstery operations) used in products that meet the upholstered seating flammability requirements of California Technical Bulletin 116, 117, or 133, the Business and Institutional Furniture Manufacturers' Association's (BIFMA's) X5.7, UFAC flammability testing, or any similar requirements from local, State, or Federal fire regulatory agencies, the VHAP content of the adhesive shall not

exceed 1.8 kg VHAP/kg solids (1.8 lb VHAP/lb solids), as applied; or

(ii) For all other contact adhesives (including foam adhesives used in products that do not meet the standards presented in paragraph (a)(2)(i) of this section, but excluding aerosol adhesives and excluding contact adhesives applied to nonporous substrates, the VHAP content of the adhesive shall not exceed 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied.

(3) Limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

(b) Each owner or operator of a new affected source subject to this subpart shall:

(1) Limit VHAP emissions from finishing operations by meeting the emission limitations for new sources presented in Table 3 of this subpart using any of the compliance methods in § 63.804(d). To determine VHAP emissions from a finishing material containing formaldehyde or styrene, the owner or operator of the affected source shall use the methods presented in § 63.803(l)(2) for determining styrene and formaldehyde usage.

(2) Limit VHAP emissions from contact adhesives by achieving a VHAP limit for contact adhesives, excluding aerosol adhesives and excluding contact adhesives applied to nonporous substrates, of no greater than 0.2 kg VHAP/kg solids (0.2 lb VHAP/lb solids), as applied, using either of the compliance methods in § 63.804(e).

(3) Limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

§ 63.803 Work practice standards.

(a) *Work practice implementation plan.* Each owner or operator of an affected source subject to this subpart shall prepare and maintain a written work practice implementation plan that defines environmentally desirable work practices for each wood furniture manufacturing operation and addresses each of the work practice standards presented in paragraphs (b) through (l) of this section. The plan shall be developed no more than 60 days after the compliance date. The written work practice implementation plan shall be available for inspection by the Administrator upon request. If the Administrator determines that the work practice implementation plan does not adequately address each of the topics specified in paragraphs (b) through (l) of this section or that the plan does not

include sufficient mechanisms for ensuring that the work practice standards are being implemented, the Administrator may require the affected source to modify the plan. Revisions or modifications to the plan do not require a revision of the source's Title V permit.

(b) *Operator training course.* Each owner or operator of an affected source shall train all new and existing personnel, including contract personnel, who are involved in finishing, gluing, cleaning, and washoff operations, use of manufacturing equipment, or implementation of the requirements of this subpart. All new personnel, those hired after the compliance date of the standard, shall be trained upon hiring. All existing personnel, those hired before the compliance date of the standard, shall be trained within six months of the compliance date of the standard. All personnel shall be given refresher training annually. The affected source shall maintain a copy of the training program with the work practice implementation plan. The training program shall include, at a minimum, the following:

(1) A list of all current personnel by name and job description that are required to be trained;

(2) An outline of the subjects to be covered in the initial and refresher training for each position or group of personnel;

(3) Lesson plans for courses to be given at the initial and the annual refresher training that include, at a minimum, appropriate application techniques, appropriate cleaning and washoff procedures, appropriate equipment setup and adjustment to minimize finishing material usage and overspray, and appropriate management of cleanup wastes; and

(4) A description of the methods to be used at the completion of initial or refresher training to demonstrate and document successful completion.

(c) *Inspection and maintenance plan.* Each owner or operator of an affected source shall prepare and maintain with the work practice implementation plan a written leak inspection and maintenance plan that specifies:

(1) A minimum visual inspection frequency of once per month for all equipment used to transfer or apply coatings, adhesives, or organic solvents;

(2) An inspection schedule;

(3) Methods for documenting the date and results of each inspection and any repairs that were made;

(4) The timeframe between identifying the leak and making the repair, which adheres, at a minimum, to the following schedule:

(i) A first attempt at repair (e.g., tightening of packing glands) shall be made no later than five calendar days after the leak is detected; and

(ii) Final repairs shall be made within 15 calendar days after the leak is detected, unless the leaking equipment is to be replaced by a new purchase, in which case repairs shall be completed within three months.

(d) *Cleaning and washoff solvent accounting system.* Each owner or operator of an affected source shall develop an organic solvent accounting form to record:

(1) The quantity and type of organic solvent used each month for washoff and cleaning, as defined in § 63.801 of this subpart;

(2) The number of pieces washed off, and the reason for the washoff; and

(3) The quantity of spent solvent generated from each washoff and cleaning operation each month, and whether it is recycled onsite or disposed offsite.

(e) *Chemical composition of cleaning and washoff solvents.* Each owner or operator of an affected source shall not use cleaning or washoff solvents that contain any of the pollutants listed in Table 4 to this subpart, in concentrations subject to MSDS reporting as required by OSHA.

(f) *Spray booth cleaning.* Each owner or operator of an affected source shall not use compounds containing more than 8.0 percent by weight of VOC for cleaning spray booth components other than conveyors, continuous coaters and their enclosures, or metal filters, unless the spray booth is being refurbished. If the spray booth is being refurbished, that is the spray booth coating or other protective material used to cover the booth is being replaced, the affected source shall use no more than 1.0 gallon of organic solvent per booth to prepare the surface of the booth prior to applying the booth coating.

(g) *Storage requirements.* Each owner or operator of an affected source shall use normally closed containers for storing finishing, gluing, cleaning, and washoff materials.

(h) *Application equipment requirements.* Each owner or operator of an affected source shall use conventional air spray guns to apply finishing materials only under any of the following circumstances:

(1) To apply finishing materials that have a VOC content no greater than 1.0 lb VOC/lb solids, as applied;

(2) For touchup and repair under the following conditions:

(i) The touchup and repair occurs after completion of the finishing operation; or

(ii) The touchup and repair occurs after the application of stain and before the application of any other type of finishing material, and the materials used for touchup and repair are applied from a container that has a volume of no more than 2.0 gallons.

(3) When spray is automated, that is, the spray gun is aimed and triggered automatically, not manually;

(4) When emissions from the finishing application station are directed to a control device;

(5) The conventional air gun is used to apply finishing materials and the cumulative total usage of that finishing material is no more than 5.0 percent of the total gallons of finishing material used during that semiannual period; or

(6) The conventional air gun is used to apply stain on a part for which it is technically or economically infeasible to use any other spray application technology.

The affected source shall demonstrate technical or economic infeasibility by submitting to the Administrator a videotape, a technical report, or other documentation that supports the affected source's claim of technical or economic infeasibility. The following criteria shall be used, either independently or in combination, to support the affected source's claim of technical or economic infeasibility:

(i) The production speed is too high or the part shape is too complex for one operator to coat the part and the application station is not large enough to accommodate an additional operator; or

(ii) The excessively large vertical spray area of the part makes it difficult to avoid sagging or runs in the stain.

(i) *Line cleaning.* Each owner or operator of an affected source shall pump or drain all organic solvent used for line cleaning into a normally closed container.

(j) *Gun cleaning.* Each owner or operator of an affected source shall collect all organic solvent used to clean spray guns into a normally closed container.

(k) *Washoff operations.* Each owner or operator of an affected source shall control emissions from washoff operations by:

(1) Using normally closed tanks for washoff; and

(2) Minimizing dripping by tilting or rotating the part to drain as much solvent as possible.

(l) *Formulation assessment plan for finishing operations.* Each owner or operator of an affected source shall prepare and maintain with the work practice implementation plan a formulation assessment plan that:

(1) Identifies VHAP from the list presented in Table 5 of this subpart that are being used in finishing operations by the affected source;

(2) Establishes a baseline level of usage by the affected source, for each VHAP identified in paragraph (l)(1) of this section. The baseline usage level shall be the highest annual usage from 1994, 1995, or 1996, for each VHAP identified in paragraph (l)(1) of this section. For formaldehyde, the baseline level of usage shall be based on the amount of free formaldehyde present in the finishing material when it is applied. For styrene, the baseline level of usage shall be an estimate of unreacted styrene, which shall be calculated by multiplying the amount of styrene monomer in the finishing material, when it is applied, by a factor of 0.16. Sources using a control device to reduce emissions may adjust their usage based on the overall control efficiency of the control system, which is determined using the equation in § 63.805 (d) or (e).

(3) Tracks the annual usage of each VHAP identified in (l)(1) by the affected source that is present in amounts subject to MSDS reporting as required by OSHA.

(4) If, after November 1998, the annual usage of the VHAP identified in paragraph (l)(1) exceeds its baseline level, then the owner or operator of the affected source shall provide a written notification to the permitting authority that describes the amount of the increase and explains the reasons for exceedance of the baseline level. The following explanations would relieve the owner or operator from further action, unless the affected source is not in compliance with any State regulations or requirements for that VHAP:

(i) The exceedance is no more than 15.0 percent above the baseline level;

(ii) Usage of the VHAP is below the de minimis level presented in Table 5 of this subpart for that VHAP (sources using a control device to reduce emissions may adjust their usage based on the overall control efficiency of the control system, which is determined using the procedures in § 63.805 (d) or (e));

(iii) The affected source is in compliance with its State's air toxic regulations or guidelines for the VHAP; or

(iv) The source of the pollutant is a finishing material with a VOC content of no more than 1.0 kg VOC/kg solids (1.0 lb VOC/lb solids), as applied.

(5) If none of the above explanations are the reason for the increase, the owner or operator shall confer with the

permitting authority to discuss the reason for the increase and whether there are practical and reasonable technology-based solutions for reducing the usage. The evaluation of whether a technology is reasonable and practical shall be based on cost, quality, and marketability of the product, whether the technology is being used successfully by other wood furniture manufacturing operations, or other criteria mutually agreed upon by the permitting authority and owner or operator. If there are no practical and reasonable solutions, the facility need take no further action. If there are solutions, the owner or operator shall develop a plan to reduce usage of the pollutant to the extent feasible. The plan shall address the approach to be used to reduce emissions, a timetable for implementing the plan, and a schedule for submitting notification of progress.

(6) If after November 1998, an affected source uses a VHAP of potential concern for which a baseline level has not been previously established, then the baseline level shall be established as the de minimis level, based on 70 year exposure levels and data provided in the proposed rulemaking pursuant to Section 112(g) of the CAA, for that pollutant. A list of VHAP of potential concern is provided in Table 6 of this subpart. If usage of the VHAP of potential concern exceeds the de minimis level, then the affected source shall provide an explanation to the permitting authority that documents the reason for exceedance of the de minimis level. If the explanation is not one of those listed in paragraphs (l)(4)(i) through (l)(4)(iv), the affected source shall follow the procedures established in (l)(5).

§ 63.804 Compliance procedures and monitoring requirements.

(a) The owner or operator of an existing affected source subject to § 63.802(a)(1) shall comply with those provisions using any of the methods presented in § 63.804 (a)(1) through (a)(4).

(1) Calculate the average VHAP content for all finishing materials used at the facility using Equation 1, and maintain a value of E no greater than 1.0:

$$E = (M_{c1}C_{c1} + M_{c2}C_{c2} + \dots + M_{cn}C_{cn} + S_1W_1 + S_2W_2 + \dots + S_nW_n) / (M_{c1} + M_{c2} + \dots + M_{cn}) \quad \text{Equation 1}$$

(2) Use compliant finishing materials according to the following criteria:

(i) Demonstrate that each stain, sealer, and topcoat has a VHAP content of no more than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied, and each thinner contains no more than 10.0

percent VHAP by weight by maintaining certified product data sheets for each coating and thinner;

(ii) Demonstrate that each washcoat, basecoat, and enamel that is purchased pre-made, that is, it is not formulated onsite by thinning another finishing material, has a VHAP content of no more than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied, and each thinner contains no more than 10.0 percent VHAP by weight by maintaining certified product data sheets for each coating and thinner; and

(iii) Demonstrate that each washcoat, basecoat, and enamel that is formulated at the affected source is formulated using a finishing material containing no more than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids) and a thinner containing no more than 3.0 percent VHAP by weight.

(3) Use a control system with an overall control efficiency (R) such that the value of E_{bc} in Equation 2 is no greater than 1.0.

$$R = [(E_{bc} - E_{ac}) / E_{ac}] (100) \quad \text{Equation 2}$$

The value of E_{bc} in Equation 2 shall be calculated using Equation 1; or

(4) Use any combination of an averaging approach, as described in paragraph (a)(1) of this section, compliant finishing materials, as described in paragraph (a)(2) of this section, and a control system, as described in paragraph (a)(3) of this section.

(b) The owner or operator of an affected source subject to § 63.802(a)(2)(i) shall comply with the provisions by using compliant foam adhesives with a VHAP content no greater than 1.8 kg VHAP/kg solids (1.8 lb VHAP/lb solids), as applied.

(c) The owner or operator of an affected source subject to § 63.802(a)(2)(ii) shall comply with those provisions by using either of the methods presented in § 63.804 (c)(1) and (c)(2).

(1) Use compliant contact adhesives with a VHAP content no greater than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied; or

(2) Use a control system with an overall control efficiency (R) such that the value of G_{ac} is no greater than 1.0.

$$R = [(G_{bc} - G_{ac}) / G_{ac}] (100) \quad \text{Equation 3}$$

(d) The owner or operator of a new affected source subject to § 63.802(b)(1) may comply with those provisions by using any of the following methods:

(1) Calculate the average VHAP content across all finishing materials used at the facility using Equation 1, and maintain a value of E no greater than 0.8;

(2) Use compliant finishing materials according to the following criteria:

(i) Demonstrate that each sealer and topcoat has a VHAP content of no more than 0.8 kg VHAP/kg solids (0.8 lb VHAP/lb solids), as applied, each stain has a VHAP content of no more than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied, and each thinner contains no more than 10.0 percent VHAP by weight;

(ii) Demonstrate that each washcoat, basecoat, and enamel that is purchased pre-made, that is, it is not formulated onsite by thinning another finishing material, has a VHAP content of no more than 0.8 kg VHAP/kg solids (0.8 lb VHAP/lb solids), as applied, and each thinner contains no more than 10.0 percent VHAP by weight; and

(iii) Demonstrate that each washcoat, basecoat, and enamel that is formulated onsite is formulated using a finishing material containing no more than 0.8 kg VHAP/kg solids (0.8 lb VHAP/lb solids) and a thinner containing no more than 3.0 percent HAP by weight.

(3) Use a control system with an overall control efficiency (R) such that the value of E_{ac} in Equation 4 is no greater than 0.8.

$$R = [(E_{ac} - E_{bc}) / E_{bc}] (100) \quad \text{Equation 4}$$

The value of E_{ac} in Equation 4 shall be calculated using Equation 1; or

(4) Use any combination of an averaging approach, as described in (d)(1), compliant finishing materials, as described in (d)(2), and a control system, as described in (d)(3).

(e) The owner or operator of a new affected source subject to § 63.802(b)(2) shall comply with the provisions using either of the following methods:

(1) Use compliant contact adhesives with a VHAP content no greater than 0.2 kg VHAP/kg solids (0.2 lb VHAP/lb solids), as applied; or

(2) Use a control system with an overall control efficiency (R) such that the value of G_{ac} in Equation 3 is no greater than 0.2.

(f) *Initial compliance.* (1) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(1) or (b)(1) that comply through the procedures established in § 63.804 (a)(1) or (d)(1) shall submit the results of the averaging calculation (Equation 1) for the first month with the initial compliance status report required by § 63.807(b). The first month's calculation shall include data for the entire month in which the compliance date falls. For example, if the source's compliance date is November 21, 1997, the averaging calculation shall include data from November 1, 1997 to November 30, 1997.

(2) Owners or operators of an affected source subject to the provisions of

§ 63.802 (a)(1) or (b)(1) that comply through the procedures established in § 63.804 (a)(2) or (d)(2) shall submit an initial compliance status report, as required by § 63.807(b), stating that compliant stains, washcoats, sealers, topcoats, basecoats, enamels, and thinners, as applicable, are being used by the affected source.

(3) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(1) or (b)(1) that are complying through the procedures established in § 63.804 (a)(2) or (d)(2) and are applying coatings using continuous coaters shall demonstrate initial compliance by:

(i) Submitting an initial compliance status report, as required by § 63.807(b), stating that compliant coatings, as determined by the VHAP content of the coating in the reservoir and the VHAP content as calculated from records, and compliant thinners are being used; or

(ii) Submitting an initial compliance status report, as required by § 63.807(b), stating that compliant coatings, as determined by the VHAP content of the coating in the reservoir, are being used; the viscosity of the coating in the reservoir is being monitored; and compliant thinners are being used. The affected source shall also submit data that demonstrate that viscosity is an appropriate parameter for demonstrating compliance.

(4) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(1) or (b)(1) that comply through the procedures established in § 63.804 (a)(3) or (d)(3) shall demonstrate initial compliance by:

(i) Submitting a monitoring plan that identifies each operating parameter to be monitored for the capture device and discusses why each parameter is appropriate for demonstrating continuous compliance;

(ii) Conducting an initial performance test as required under § 63.7 using the procedures and test methods listed in § 63.7 and § 63.805 (c) and (d) or (e);

(iii) Calculating the overall control efficiency (R) following the procedures in § 63.805 (d) or (e); and

(iv) Determining those operating conditions critical to determining compliance and establishing one or more operating parameters that will ensure compliance with the standard.

(A) For compliance with a thermal incinerator, minimum combustion temperature shall be the operating parameter.

(B) For compliance with a catalytic incinerator equipped with a fixed catalyst bed, the minimum gas temperature both upstream and

downstream of the catalyst bed shall be the operating parameter.

(C) For compliance with a catalytic incinerator equipped with a fluidized catalyst bed, the minimum gas temperature upstream of the catalyst bed and the pressure drop across the catalyst bed shall be the operating parameters.

(D) For compliance with a carbon adsorber, the operating parameters shall be the total regeneration mass stream flow for each regeneration cycle and the carbon bed temperature after each regeneration, or the concentration level of organic compounds exiting the adsorber, unless the owner or operator requests and receives approval from the Administrator to establish other operating parameters.

(E) For compliance with a control device not listed in this section, one or more operating parameter values shall be established using the procedures identified in § 63.804(g)(4)(vi).

(v) Owners or operators complying with § 63.804(f)(4) shall calculate each site-specific operating parameter value as the arithmetic average of the maximum or minimum operating parameter values, as appropriate, that demonstrate compliance with the standards, during the three test runs required by § 63.805(c)(1).

(5) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(2) or (b)(2) that comply through the procedures established in § 63.804 (b), (c)(1), or (e)(1), shall submit an initial compliance status report, as required by § 63.807(b), stating that compliant contact adhesives are being used by the affected source.

(6) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(2)(ii) or (b)(2) that comply through the procedures established in § 63.804 (c)(2) or (e)(2), shall demonstrate initial compliance by:

(i) Submitting a monitoring plan that identifies each operating parameter to be monitored for the capture device and discusses why each parameter is appropriate for demonstrating continuous compliance;

(ii) Conducting an initial performance test as required under § 63.7 using the procedures and test methods listed in § 63.7 and § 63.805 (c) and (d) or (e);

(iii) Calculating the overall control efficiency (R) following the procedures in § 63.805 (d) or (e); and

(iv) Determining those operating conditions critical to determining compliance and establishing one or more operating parameters that will ensure compliance with the standard.

(A) For compliance with a thermal incinerator, minimum combustion

temperature shall be the operating parameter.

(B) For compliance with a catalytic incinerator equipped with a fixed catalyst bed, the minimum gas temperature both upstream and downstream of the catalyst shall be the operating parameter.

(C) For compliance with a catalytic incinerator equipped with a fluidized catalyst bed, the minimum gas temperature upstream of the catalyst bed and the pressure drop across the catalyst bed shall be the operating parameters.

(v) Owners or operators complying with § 63.804(f)(6) shall calculate each site-specific operating parameter value as the arithmetic average of the maximum or minimum operating values as appropriate, that demonstrate compliance with the standards, during the three test runs required by § 63.805(c)(1).

(7) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(3) or (b)(3) shall submit an initial compliance status report, as required by § 63.807(b), stating that compliant strippable spray booth coatings are being used by the affected source.

(8) Owners or operators of an affected source subject to the work practice standards in § 63.803 shall submit an initial compliance status report, as required by § 63.807(b), stating that the work practice implementation plan has been developed and procedures have been established for implementing the provisions of the plan.

(g) *Continuous compliance demonstrations.* (1) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(1) or (b)(1) that comply through the procedures established in § 63.804 (a)(1) or (d)(1) shall demonstrate continuous compliance by submitting the results of the averaging calculation (Equation 1) for each month within that semiannual period and submitting a compliance certification with the semiannual report required by § 63.807(c).

(i) The compliance certification shall state that the value of (E), as calculated by Equation 1, is no greater than 1.0 for existing sources or 0.8 for new sources. An affected source is in violation of the standard if E is greater than 1.0 for existing sources or 0.8 for new sources for any month. A violation of the monthly average is a separate violation of the standard for each day of operation during the month, unless the affected source can demonstrate through records that the violation of the monthly average can be attributed to a particular day or days during the period.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(2) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(1) or (b)(1) that comply through the procedures established in § 63.804 (a)(2) or (d)(2) shall demonstrate continuous compliance by using compliant coatings and thinners, maintaining records that demonstrate the coatings and thinners are compliant, and submitting a compliance certification with the semiannual report required by § 63.807(c).

(i) The compliance certification shall state that compliant stains, washcoats, sealers, topcoats, basecoats, enamels, and thinners, as applicable, have been used each day in the semiannual reporting period or should otherwise identify the periods of noncompliance and the reasons for noncompliance. An affected source is in violation of the standard whenever a noncompliant coating, as demonstrated by records or by a sample of the coating, is used.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(3) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(1) or (b)(1) that are complying through the procedures established in § 63.804 (a)(2) or (d)(2) and are applying coatings using continuous coaters shall demonstrate continuous compliance by following the procedures in paragraph (g)(3) (i) or (ii) of this section.

(i) Using compliant coatings, as determined by the VHAP content of the coating in the reservoir and the VHAP content as calculated from records, using compliant thinners, and submitting a compliance certification with the semiannual report required by § 63.807(c).

(A) The compliance certification shall state that compliant coatings have been used each day in the semiannual reporting period, or should otherwise identify the days of noncompliance and the reasons for noncompliance. An affected source is in violation of the standard whenever a noncompliant coating, as determined by records or by a sample of the coating, is used. Use of a noncompliant coating is a separate violation for each day the noncompliant coating is used.

(B) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(ii) Using compliant coatings, as determined by the VHAP content of the

coating in the reservoir, using compliant thinners, maintaining a viscosity of the coating in the reservoir that is no less than the viscosity of the initial coating by monitoring the viscosity with a viscosity meter or by testing the viscosity of the initial coating and retesting the coating in the reservoir each time solvent is added, maintaining records of solvent additions, and submitting a compliance certification with the semiannual report required by § 63.807(c).

(A) The compliance certification shall state that compliant coatings, as determined by the VHAP content of the coating in the reservoir, have been used each day in the semiannual reporting period. Additionally, the certification shall state that the viscosity of the coating in the reservoir has not been less than the viscosity of the initial coating, that is, the coating that is initially mixed and placed in the reservoir, for any day in the semiannual reporting period.

(B) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(C) An affected source is in violation of the standard when a sample of the as-applied coating exceeds the applicable limit established in § 63.804 (a)(2) or (d)(2), as determined using EPA Method 311, or the viscosity of the coating in the reservoir is less than the viscosity of the initial coating.

(4) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(1) or (b)(1) that comply through the procedures established in § 63.804 (a)(3) or (d)(3) shall demonstrate continuous compliance by installing, calibrating, maintaining, and operating the appropriate monitoring equipment according to manufacturer's specifications. The owner or operator shall also submit the excess emissions and continuous monitoring system performance report and summary report required by § 63.807(d) and § 63.10(e) of subpart A.

(i) Where a capture/control device is used, a device to monitor each site-specific operating parameter established in accordance with § 63.804(f)(6)(i) is required.

(ii) Where an incinerator is used, a temperature monitoring device

equipped with a continuous recorder is required.

(A) Where a thermal incinerator is used, a temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.

(B) Where a catalytic incinerator equipped with a fixed catalyst bed is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

(C) Where a catalytic incinerator equipped with a fluidized catalyst bed is used, a temperature monitoring device shall be installed in the gas stream immediately before the bed. In addition, a pressure monitoring device shall be installed to determine the pressure drop across the catalyst bed. The pressure drop shall be measured monthly at a constant flow rate.

(iii) Where a carbon adsorber is used one of the following is required:

(A) An integrating stream flow monitoring device having an accuracy of ± 10 percent, capable of recording the total regeneration stream mass flow for each regeneration cycle; and a carbon bed temperature monitoring device, having an accuracy of ± 1 percent of the temperature being monitored or ± 0.5 °C, whichever is greater, and capable of recording the carbon bed temperature after each regeneration and within 15 minutes of completing any cooling cycle;

(B) An organic monitoring device, equipped with a continuous recorder, to indicate the concentration level of organic compounds exiting the carbon adsorber; or

(C) Any other monitoring device that has been approved by the Administrator in accordance with § 63.804(f)(4)(iv)(D).

(iv) Owners or operators of an affected source shall not operate the capture or control device at a daily average value greater than or less than (as appropriate) the operating parameter values. The daily average value shall be calculated as the average of all values for a monitored parameter recorded during the operating day.

(v) Owners or operators of an affected source that are complying through the

use of a catalytic incinerator equipped with a fluidized catalyst bed shall maintain a constant pressure drop, measured monthly, across the catalyst bed.

(vi) An owner or operator who uses a control device not listed in § 63.804(f)(4) shall submit, for the Administrator's approval, a description of the device, test data verifying performance, and appropriate site-specific operating parameters that will be monitored to demonstrate continuous compliance with the standard.

(5) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(2) (i) or (ii) or (b)(2) that comply through the procedures established in § 63.804 (b), (c)(1), or (e)(1), shall submit a compliance certification with the semiannual report required by § 63.807(c).

(i) The compliance certification shall state that compliant contact and/or foam adhesives have been used each day in the semiannual reporting period, or should otherwise identify each day noncompliant contact and/or foam adhesives were used. Each day a noncompliant contact or foam adhesive is used is a single violation of the standard.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(6) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(2)(ii) or (b)(2) that comply through the procedures established in § 63.804 (c)(2) or (e)(2), shall demonstrate continuous compliance by installing, calibrating, maintaining, and operating the appropriate monitoring equipment according to the manufacturer's specifications. The owner or operator shall also submit the excess emissions and continuous monitoring system performance report and summary report required by § 63.807(d) and § 63.10(e) of subpart A of this part.

(i) Where a capture/control device is used, a device to monitor each site-specific operating parameter established in accordance with § 63.804(f)(6)(i) is required.

(ii) Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required.

(A) Where a thermal incinerator is used, a temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.

(B) Where a catalytic incinerator equipped with a fixed catalyst bed is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

(C) Where a catalytic incinerator equipped with a fluidized catalyst bed is used, a temperature monitoring device shall be installed in the gas stream immediately before the bed. In addition, a pressure monitoring device shall be installed to measure the pressure drop across the catalyst bed. The pressure drop shall be measured monthly at a constant flow rate.

(iii) Where a carbon adsorber is used one of the following is required:

(A) An integrating stream flow monitoring device having an accuracy of ± 10 percent, capable of recording the total regeneration stream mass flow for each regeneration cycle; and a carbon bed temperature monitoring device, having an accuracy of ± 1 percent of the temperature being monitored or ± 0.5 °C, whichever is greater, and capable of recording the carbon bed temperature after each regeneration and within 15 minutes of completing any cooling cycle;

(B) An organic monitoring device, equipped with a continuous recorder, to indicate the concentration level of organic compounds exiting the carbon adsorber; or

(C) Any other monitoring device that has been approved by the Administrator in accordance with § 63.804(f)(4)(iv)(D).

(iv) Owners or operators of an affected source shall not operate the capture or control device at a daily average value greater than or less than (as appropriate) the operating parameter values. The daily average value shall be calculated as the average of all values for a monitored parameter recorded during the operating day.

(v) Owners or operators of an affected source that are complying through the use of a catalytic incinerator equipped with a fluidized catalyst bed shall maintain a constant pressure drop, measured monthly, across the catalyst bed.

(vi) An owner or operator using a control device not listed in this section shall submit to the Administrator a description of the device, test data

verifying the performance of the device, and appropriate operating parameter values that will be monitored to demonstrate continuous compliance with the standard. Compliance using this device is subject to the Administrator's approval.

(7) Owners or operators of an affected source subject to the provisions of § 63.802 (a)(3) or (b)(3) shall submit a compliance certification with the semiannual report required by § 63.807(c).

(i) The compliance certification shall state that compliant strippable spray booth coatings have been used each day in the semiannual reporting period, or should otherwise identify each day noncompliant materials were used. Each day a noncompliant strippable booth coating is used is a single violation of the standard.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(8) Owners or operators of an affected source subject to the work practice standards in § 63.803 shall submit a compliance certification with the semiannual report required by § 63.807(c).

(i) The compliance certification shall state that the work practice implementation plan is being followed, or should otherwise identify the provisions of the plan that have not been implemented and each day the provisions were not implemented. During any period of time that an owner or operator is required to implement the provisions of the plan, each failure to implement an obligation under the plan during any particular day is a violation.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

§ 63.805 Performance test methods.

(a) The EPA Method 311 of Appendix A of part 63 shall be used in conjunction with formulation data to determine the VHAP content of the liquid coating. Formulation data shall be used to identify VHAP present in the coating. The EPA Method 311 shall then be used to quantify those VHAP identified through formulation data. The EPA Method 311 shall not be used to quantify HAP such as styrene and formaldehyde that are emitted during the cure. The EPA Method 24 (40 CFR part 60, Appendix A) shall be used to determine the solids content by weight and the density of coatings. If it is demonstrated to the satisfaction of the Administrator that a coating does not release VOC or HAP byproducts during

the cure, for example, all VOC and HAP present in the coating is solvent, then batch formulation information shall be accepted. The owner or operator of an affected source may request approval from the Administrator to use an alternative method for determining the VHAP content of the coating. In the event of any inconsistency between the EPA Method 24 or Method 311 test data and a facility's formulation data, that is, if the EPA Method 24/311 value is higher, the EPA Method 24/311 test shall govern unless after consultation, a regulated source could demonstrate to the satisfaction of the enforcement agency that the formulation data were correct. Sampling procedures shall follow the guidelines presented in "Standard Procedures for Collection of Coating and Ink Samples for VOC Content Analysis by Reference Method 24 and Reference Method 24A," EPA-340/1-91-010. (Docket No. A-93-10, Item No. IV-A-1).

(b) Owners or operators demonstrating compliance in accordance with § 63.804 (f)(4) or (f)(6) and § 63.804 (g)(4) or (g)(6), or complying with any of the other emission limits of § 63.802 by operating a capture or control device shall determine the overall control efficiency of the control system (R) as the product of the capture and control device efficiency, using the test methods cited in § 63.805(c) and the procedures in § 63.805 (d) or (e).

(c) When an initial compliance demonstration is required by § 63.804 (f)(4) or (f)(6) of this subpart, the procedures in paragraphs (c)(1) through (c)(6) of this section shall be used in determining initial compliance with the provisions of this subpart.

(1) The EPA Method 18 (40 CFR part 60, Appendix A) shall be used to determine the HAP concentration of gaseous air streams. The test shall consist of three separate runs, each lasting a minimum of 30 minutes.

(2) The EPA Method 1 or 1A (40 CFR part 60, Appendix A) shall be used for sample and velocity traverses.

(3) The EPA Method 2, 2A, 2C, or 2D (40 CFR part 60, Appendix A) shall be used to measure velocity and volumetric flow rates.

(4) The EPA Method 3 (40 CFR part 60, appendix A) shall be used to analyze the exhaust gases.

(5) The EPA Method 4 (40 CFR part 60, Appendix A) shall be used to measure the moisture in the stack gas.

(6) The EPA Methods 2, 2A, 2C, 2D, 3, and 4 shall be performed, as applicable, at least twice during each test period.

(d) Each owner or operator of an affected source demonstrating compliance in accordance with § 63.804 (f)(4) or (f)(6) shall perform a gaseous emission test using the following procedures:

(1) Construct the overall HAP emission reduction system so that all volumetric flow rates and total HAP emissions can be accurately determined by the applicable test methods specified in § 63.805(c) (1) through (6);

(2) Determine capture efficiency from the affected emission point(s) by capturing, venting, and measuring all HAP emissions from the affected emission point(s). During a performance test, the owner or operator shall isolate

affected emission point(s) located in an area with other nonaffected gaseous emission sources from all other gaseous emission point(s) by any of the following methods:

(i) Build a temporary total enclosure (see § 63.801) around the affected emission point(s); or

(ii) Use the building that houses the process as the enclosure (see § 63.801);

(iii) Use any alternative protocol and test method provided they meet either the requirements of the data quality objective (DQO) approach or the lower confidence level (LCL) approach (see § 63.801);

(iv) Shut down all nonaffected HAP emission point(s) and continue to exhaust fugitive emissions from the

affected emission point(s) through any building ventilation system and other room exhausts such as drying ovens. All exhaust air must be vented through stacks suitable for testing; or

(v) Use another methodology approved by the Administrator provided it complies with the EPA criteria for acceptance under part 63, appendix A, Method 301.

(3) Operate the control device with all affected emission points that will subsequently be delivered to the control device connected and operating at maximum production rate;

(4) Determine the efficiency (F) of the control device using the following equation:

$$F = \frac{\sum_{i=1}^n Q_{bi} C_{bi} - \sum_{j=1}^p Q_{aj} C_{aj}}{\sum_{i=1}^n Q_{bi} C_{bi}} \quad (\text{Equation 5})$$

(5) Determine the efficiency (N) of the capture system using the following equation:

$$N = \frac{\sum_{i=1}^n Q_{di} C_{di}}{\sum_{i=1}^n Q_{di} C_{di} + \sum_{k=1}^p Q_{fk} C_{fk}} \quad (\text{Equation 6})$$

(6) For each affected source complying with § 63.802(a)(1) in accordance with § 63.804(a)(3), compliance is demonstrated if the product of (F×N)(100) yields a value (R) such that the value of E_{ac} in Equation 2 is no greater than 1.0.

(7) For each new affected source complying with § 63.802(b)(1) in accordance with § 63.804(d)(3), compliance is demonstrated if the product of (F×N)(100) yields a value (R) such that the value of E_{ac} in Equation 4 is no greater than 0.8.

(8) For each affected source complying with § 63.802(a)(2)(ii) in accordance with § 63.804(c)(2), compliance is demonstrated if the product of (F×N)(100) yields a value (R) such that the value of G_{ac} in Equation 3 is no greater than 1.0.

(9) For each new affected source complying with § 63.802(b)(2) in accordance with § 63.804(e)(2), compliance is demonstrated if the product of (F×N)(100) yields a value (R)

such that the value of G_{ac} in Equation 3 is no greater than 0.2.

(e) An alternative method to the compliance method in § 63.805(d) is the installation of a permanent total enclosure around the affected emission point(s). A permanent total enclosure presents prima facie evidence that all HAP emissions from the affected emission point(s) are directed to the control device. Each affected source that complies using a permanent total enclosure shall:

(1) Demonstrate that the total enclosure meets the requirements in paragraphs (e)(1) (i) through (iv). The owner or operator of an enclosure that does not meet these requirements may apply to the Administrator for approval of the enclosure as a total enclosure on a case-by-case basis. The enclosure shall be considered a total enclosure if it is demonstrated to the satisfaction of the Administrator that all HAP emissions from the affected emission point(s) are contained and vented to the control

device. The requirements for automatic approval are as follows:

(i) The total area of all natural draft openings shall not exceed 5 percent of the total surface area of the total enclosure's walls, floor, and ceiling;

(ii) All sources of emissions within the enclosure shall be a minimum of four equivalent diameters away from each natural draft opening;

(iii) The average inward face velocity (FV) across all natural draft openings shall be a minimum of 3,600 meters per hour as determined by the following procedures:

(A) All forced makeup air ducts and all exhaust ducts are constructed so that the volumetric flow rate in each can be accurately determined by the test methods specified in § 63.805 (c)(2) and (3). Volumetric flow rates shall be calculated without the adjustment normally made for moisture content; and

(B) Determine FV by the following equation:

SLC

$$FV = \frac{\sum_{j=1}^n Q_{out j} - \sum_{i=1}^p Q_{in i}}{\sum_{k=1}^q A_k} \quad (\text{Equation 7})$$

(iv) All access doors and windows whose areas are not included as natural draft openings and are not included in the calculation of FV shall be closed during routine operation of the process.

(2) Determine the control device efficiency using Equation (5), and the test methods and procedures specified in § 63.805 (c)(1) through (6).

(3) For each affected source complying with § 63.802(a)(1) in accordance with § 63.804(a)(3), compliance is demonstrated if:

- (i) The installation of a permanent total enclosure is demonstrated ($N=1$);
- (ii) The value of F is determined from Equation (5); and
- (iii) The product of $(F \times N)(100)$ yields a value (R) such that the value of E_{ac} in Equation 2 is no greater than 1.0.

(4) For each new affected source complying with § 63.802(b)(1) in accordance with § 63.804(d)(3), compliance is demonstrated if:

- (i) The installation of a permanent total enclosure is demonstrated ($N=1$);
- (ii) The value of F is determined from Equation (5); and
- (iii) The product of $(F \times N)(100)$ yields a value (R) such that the value of E_{ac} in Equation 4 is no greater than 0.8.

(5) For each affected source complying with § 63.802(a)(2)(ii) in accordance with § 63.804(c)(2), compliance is demonstrated if:

- (i) The installation of a permanent total enclosure is demonstrated ($N=1$);
- (ii) The value of F is determined from Equation (5); and
- (iii) The product of $(F \times N)(100)$ yields a value (R) such that the value of G_{ac} in Equation 3 is no greater than 1.0.

(6) For each new affected source complying with § 63.802(b)(2) in accordance with § 63.804(e)(2), compliance is demonstrated if:

- (i) The installation of a permanent total enclosure is demonstrated ($N=1$);
- (ii) The value of F is determined from Equation (5); and
- (iii) The product of $(F \times N)(100)$ yields a value (R) such that the value of G_{ac} in Equation 3 is no greater than 0.2.

§ 63.806 Recordkeeping requirements.

(a) The owner or operator of an affected source subject to this subpart shall fulfill all recordkeeping requirements of § 63.10 of subpart A, according to the applicability criteria in § 63.800(d) of this subpart.

(b) The owner or operator of an affected source subject to the emission limits in § 63.802 of this subpart shall maintain records of the following:

(1) A certified product data sheet for each finishing material, thinner, contact adhesive, and strippable spray booth coating subject to the emission limits in § 63.802; and

(2) The VHAP content, in kg VHAP/kg solids (lb VHAP/lb solids), as applied, of each finishing material and contact adhesive subject to the emission limits in § 63.802; and

(3) The VOC content, in kg VOC/kg solids (lb VOC/lb solids), as applied, of each strippable booth coating subject to the emission limits in § 63.802 (a)(3) or (b)(3).

(c) The owner or operator of an affected source following the compliance method in § 63.804 (a)(1) or (d)(1) shall maintain copies of the averaging calculation for each month following the compliance date, as well as the data on the quantity of coatings and thinners used that is necessary to support the calculation of E in Equation 1.

(d) The owner or operator of an affected source following the compliance procedures of § 63.804 (f)(3)(ii) and (g)(3)(ii) shall maintain the records required by § 63.806(b) as well as records of the following:

- (1) Solvent and coating additions to the continuous coater reservoir;
- (2) Viscosity measurements; and
- (3) Data demonstrating that viscosity is an appropriate parameter for demonstrating compliance.

(e) The owner or operator of an affected source subject to the work practice standards in § 63.803 of this subpart shall maintain onsite the work practice implementation plan and all records associated with fulfilling the requirements of that plan, including, but not limited to:

- (1) Records demonstrating that the operator training program required by § 63.803(b) is in place;
- (2) Records collected in accordance with the inspection and maintenance plan required by § 63.803(c);
- (3) Records associated with the cleaning solvent accounting system required by § 63.803(d);
- (4) Records associated with the limitation on the use of conventional air

spray guns showing total finishing material usage and the percentage of finishing materials applied with conventional air spray guns for each semiannual period as required by § 63.803(h)(5).

(5) Records associated with the formulation assessment plan required by § 63.803(l); and

(6) Copies of documentation such as logs developed to demonstrate that the other provisions of the work practice implementation plan are followed.

(f) The owner or operator of an affected source following the compliance method of § 63.804 (f)(4) or (g)(4) shall maintain copies of the calculations demonstrating that the overall control efficiency (R) of the control system results in the value of E_{ac} required by Equations 2 or 4, records of the operating parameter values, and copies of the semiannual compliance reports required by § 63.807(d).

(g) The owner or operator of an affected source following the compliance method of § 63.804 (f)(6) or (g)(6), shall maintain copies of the calculations demonstrating that the overall control efficiency (R) of the control system results in the applicable value of G_{ac} calculated using Equation 3, records of the operating parameter values, and copies of the semiannual compliance reports required by § 63.807(d).

(h) The owner or operator of an affected source subject to the emission limits in § 63.802 and following the compliance provisions of § 63.804(f)(1), (2), (3), (5), (7) and (8) and § 63.804(g)(1), (2), (3), (5), (7), and (8) shall maintain records of the compliance certifications submitted in accordance with § 63.807(c) for each semiannual period following the compliance date.

(i) The owner or operator of an affected source shall maintain records of all other information submitted with the compliance status report required by § 63.9(h) and § 63.807(b) and the semiannual reports required by § 63.807(c).

(j) The owner or operator of an affected source shall maintain all records in accordance with the requirements of § 63.10(b)(1).

§ 63.807 Reporting requirements.

(a) The owner or operator of an affected source subject to this subpart

shall fulfill all reporting requirements of § 63.7 through § 63.10 of subpart A (General Provisions) according to the applicability criteria in § 63.800(d) of this subpart.

(b) The owner or operator of an affected source demonstrating compliance in accordance with § 63.804(f) (1), (2), (3), (5), (7) and (8) shall submit the compliance status report required by § 63.9(h) of subpart A (General Provisions) no later than 60 days after the compliance date. The report shall include the information required by § 63.804(f) (1), (2), (3), (5), (7), and (8) of this subpart.

(c) The owner or operator of an affected source demonstrating compliance in accordance with § 63.804(g) (1), (2), (3), (5), (7), and (8) shall submit a report covering the previous 6 months of wood furniture manufacturing operations:

(1) The first report shall be submitted 30 calendar days after the end of the first 6-month period following the compliance date.

(2) Subsequent reports shall be submitted 30 calendar days after the end of each 6-month period following the first report.

(3) The semiannual reports shall include the information required by § 63.804(g) (1), (2), (3), (5), (7), and (8), a statement of whether the affected source was in compliance or noncompliance, and, if the affected source was in noncompliance, the measures taken to bring the affected source into compliance.

(4) The frequency of the reports required by paragraph (c) of this section shall not be reduced from semiannually regardless of the history of the owner's or operator's compliance status.

(d) The owner or operator of an affected source demonstrating compliance in accordance with § 63.804(g) (4) and (6) of this subpart shall submit the excess emissions and continuous monitoring system performance report and summary report required by § 63.10(e) of subpart A. The report shall include the monitored operating parameter values required by § 63.804(g) (4) and (6). If the source experiences excess emissions, the report shall be submitted quarterly for at least 1 year after the excess emissions occur and until a request to reduce reporting frequency is approved, as indicated in § 63.10(e)(3)(C). If no excess emissions

occur, the report shall be submitted semiannually.

(e) The owner or operator of an affected source required to provide a written notification under § 63.803(1)(4) shall include in the notification one or more statements that explains the reasons for the usage increase. The notification shall be submitted no later than 30 calendar days after the end of the annual period in which the usage increase occurred.

§ 63.808 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under § 112(d) of the Clean Air Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) The authority conferred in § 63.804(f)(4)(iv) (D) and (E), § 63.804(g)(4)(iii)(C), § 63.804(g)(4)(vi), § 63.804(g)(6)(vi), § 63.805(a), § 63.805(d)(2)(V), and § 63.805(e)(1) shall not be delegated to any State.

§§ 63.809–63.819 [Reserved]

Tables to Subpart JJ to Part 63

TABLE 1.—GENERAL PROVISIONS APPLICABILITY TO SUBPART JJ

Reference	Applies to subpart JJ	Comment
63.1(a)	Yes	
63.1(b)(1)	No	Subpart JJ specifies applicability.
63.1(b)(2)	Yes	
63.1(b)(3)	Yes	
63.1(c)(1)	No	Subpart JJ specifies applicability.
63.1(c)(2)	No	Area sources are not subject to subpart JJ.
63.1(c)(4)	Yes	
63.1(c)(5)	Yes	
63.1(e)	Yes	
63.2	Yes	Additional terms are defined in 63.801(a) of subpart JJ. When overlap between subparts A and JJ occurs, subpart JJ takes precedence.
63.3	Yes	Other units used in subpart JJ are defined in 63.801(b).
63.4	Yes	
63.5	Yes	
63.6(a)	Yes	
63.6(b)(1)	Yes	
63.6(b)(2)	Yes	
63.6(b)(3)	Yes	
63.6(b)(4)	No	May apply when standards are proposed under Section 112(f) of the CAA.
63.6(b)(5)	Yes	
63.6(b)(7)	Yes	
63.6(c)(1)	Yes	
63.6(c)(2)	No	
63.6(c)(5)	Yes	
63.6(e)(1)	Yes	
63.6(e)(2)	Yes	
63.6(e)(3)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.6(f)(1)	No	Affected sources complying through the procedures specified in 63.804 (a)(1), (a)(2), (b), (c)(1), (d)(1), (d)(2), (e)(1), and (e)(2) are subject to the emission standards at all times, including periods of startup, shutdown, and malfunction.
63.6(f)(2)	Yes	
63.6(f)(3)	Yes	
63.6(g)	Yes	
63.6(h)	No.	
63.6 (f)(1)–(i)(3)	Yes	
63.6(i)(4)(i)	Yes	

TABLE 1.—GENERAL PROVISIONS APPLICABILITY TO SUBPART JJ—Continued

Reference	Applies to subpart JJ	Comment
63.6(i)(4)(ii)	No.	
63.6 (i)(5)—(i)(14) ...	Yes	
63.6(i)(16)	Yes	
63.6(j)	Yes	
63.7	Yes	Applies only to affected sources using a control device to comply with the rule.
63.8	Yes	Applies only to affected sources using a control device to comply with the rule.
63.9(a)	Yes	
63.9(b)	Yes	Existing sources are required to submit initial notification report within 270 days of the effective date.
63.9(c)	Yes	
63.9(d)	Yes	
63.9(e)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.9(f)	No	
63.9(g)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.9(h)	Yes	63.9(h)(2)(ii) applies only to affected sources using a control device to comply with the rule.
63.9(i)	Yes	
63.9(j)	Yes	
63.10(a)	Yes	
63.10(b)(1)	Yes	
63.10(b)(2)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.10(b)(3)	Yes	
63.10(c)	Yes	
63.10(d)(1)	Yes	
63.10(d)(2)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.10(d)(3)	No	
63.10(d)(4)	Yes	
63.10(d)(5)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.10(e)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.10(f)	Yes	
63.11	No	
63.12–63.15	Yes	

TABLE 2.—LIST OF VOLATILE HAZARDOUS AIR POLLUTANTS

Chemical name	CAS No.
Acetaldehyde	75070
Acetamide	60355
Acetonitrile	75053
Acetophenone	98862
2-Acetylaminofluorene	53963
Acrolein	107028
Acrylamide	79061
Acrylic acid	79107
Acrylonitrile	107131
Allyl chloride	107051
4-Aminobiphenyl	92671
Aniline	62533
o-Anisidine	90040
Benzene	71432
Benzidine	92875
Benzotrichloride	98077
Benzyl chloride	100447
Biphenyl	92524
Bis(2-ethylhexyl) phthalate (DEHP)	117817
Bis(chloromethyl) ether	542881
Bromoform	75252
1,3-Butadiene	106990
Caprolactam	105602
Carbon disulfide	75150
Carbon tetrachloride	56235
Carbonyl sulfide	463581
Catechol	120809
Chloroacetic acid	79118
2-Chloroacetophenone	532274
Chlorobenzene	108907
Chloroform	67663
Chloromethyl methyl ether	107302
Chloroprene	126998

TABLE 2.—LIST OF VOLATILE HAZARDOUS AIR POLLUTANTS—Continued

Chemical name	CAS No.
Cresols (isomers and mixture)	1319773
o-Cresol	95487
m-Cresol	108394
p-Cresol	106445
Cumene	98828
2,4-D (2,4-Dichlorophenoxyacetic acid, including salts and esters)	94757
DDE (1,1-Dichloro-2,2-bis (p-chlorophenyl) ethylene)	72559
Diazomethane	334833
Dibenzofuran	132649
1,2-Dibromo-3-chloropropane	96123
Dibutylphthalate	84742
1,4-Dichlorobenzene	106467
3,3'-Dichlorobenzidine	91941
Dichloroethyl ether (Bis (2-chloroethyl) ether)	111444
1,3-Dichloropropene	542756
Diethanolamine	111422
N,N-Dimethylaniline	121697
Diethyl sulfate	64675
3,3'-Dimethoxybenzidine	119904
4-Dimethylaminoazobenzene	60117
3,3'-Dimethylbenzidine	119937
Dimethylcarbamoyl chloride	79447
N,N-Dimethylformamide	68122
1,1-Dimethylhydrazine	57147
Dimethyl phthalate	131113
Dimethyl sulfate	77781
4,6-Dinitro-o-cresol, and salts	51285
2,4-Dinitrophenol	121142
2,4-Dinitrotoluene	123911
1,4-Dioxane (1,4-Diethyleneoxide)	123911
1,2-Diphenylhydrazine	122667

TABLE 2.—LIST OF VOLATILE HAZARDOUS AIR POLLUTANTS—Continued

Chemical name	CAS No.
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106898
1,2-Epoxybutane	106887
Ethyl acrylate	140885
Ethylbenzene	100414
Ethyl carbamate (Urethane)	51796
Ethyl chloride (Chloroethane)	75003
Ethylene dibromide (Di-bromoethane)	106934
Ethylene dichloride (1,2-Di-chloroethane)	107062
Ethylene glycol	107211
Ethylene oxide	75218
Ethylenethiourea	96457
Ethylidene dichloride (1,1-Di-chloroethane)	75343
Formaldehyde	50000
Glycol ethers	0
Hexachlorobenzene	118741
Hexachloro-1,3-butadiene	87683
Hexachloroethane	67721
Hexamethylene-1,6-diisocyanate	822060
Hexamethylphosphoramide	680319
Hexane	110543
Hydrazine	302012
Hydroquinone	123319
Isophorone	78591
Maleic anhydride	108316
Methanol	67561
Methyl bromide (Bromomethane)	74839
Methyl chloride (Chloromethane)	74873
Methyl chloroform (1,1,1-Trichloroethane)	71556
Methyl ethyl ketone (2-Butanone)	78933

TABLE 2.—LIST OF VOLATILE HAZARDOUS AIR POLLUTANTS—Continued

Chemical name	CAS No.
Methylhydrazine	60344
Methyl iodide (Iodomethane)	74884
Methyl isobutyl ketone (Hexone) ..	108101
Methyl isocyanate	624839
Methyl methacrylate	80626
Methyl tert-butyl ether	1634044
4,4'-Methylenebis (2-chloroaniline)	101144
Methylene chloride (Dichloromethane)	75092
4,4'-Methylenediphenyl diisocyanate (MDI)	101688
4,4'-Methylenedianiline	101779
Naphthalene	91203
Nitrobenzene	98953
4-Nitrobiphenyl	92933
4-Nitrophenol	100027
2-Nitropropane	79469
N-Nitroso-N-methylurea	684935
N-Nitrosodimethylamine	62769
N-Nitrosomorpholine	59892
Phenol	108952
p-Phenylenediamine	106503
Phosgene	75445
Phthalic anhydride	85449
Polychlorinated biphenyls (Aroclors)	1336363

TABLE 2.—LIST OF VOLATILE HAZARDOUS AIR POLLUTANTS—Continued

Chemical name	CAS No.
Polycyclic Organic Matter ^a	0
1,3-Propane sultone	1120714
beta-Propiolactone	57578
Propionaldehyde	123386
Propoxur (Baygon)	114261
Propylene dichloride (1,2-Dichloropropane)	78875
Propylene oxide	75569
1,2-Propylenimine (2-Methyl aziridine)	75558
Quinone	106514
Styrene	100425
Styrene oxide	96093
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746016
1,1,2,2-Tetrachloroethane	79345
Tetrachloroethylene (Perchloroethylene)	127184
Toluene	108883
2,4-Toluenediamine	95807
Toluene-2,4-diisocyanate	584849
o-Toluidine	95534
1,2,4-Trichlorobenzene	120821
1,1,2-Trichloroethane	79005
Trichloroethylene	79016

TABLE 2.—LIST OF VOLATILE HAZARDOUS AIR POLLUTANTS—Continued

Chemical name	CAS No.
2,4,5-Trichlorophenol	95954
2,4,6-Trichlorophenol	88062
Triethylamine	121448
Trifluralin	1582098
2,2,4-Trimethylpentane	540841
Vinyl acetate	108054
Vinyl bromide	593602
Vinyl chloride	75014
Vinylidene chloride (1,1-Dichloroethylene)	75354
Xylenes (isomers and mixture)	1330207
o-Xylene	95476
m-Xylene	108383
p-Xylene	106423

^aIncludes mono- and diethers of ethylene glycol, diethylene glycols and triethylene glycol; R-(OCH₂CH₂)_nRR-OR where:

n = 1, 2, or 3,
R = alkyl or aryl groups
R' = R, H, or groups which, when removed, yield glycol ethers with the structure: R-(OCH₂CH₂)_n-OH. Polymers are excluded from the glycol category.

^bIncludes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100°C.

TABLE 3.—SUMMARY OF EMISSION LIMITS

Emission point	Existing source	New source
Finishing Operations:		
(a) Achieve a weighted average VHAP content across all coatings (maximum kg VHAP/kg solids [lb VHAP/lb solids], as applied)	1.0	0.8
(b) Use compliant finishing materials (maximum kg VHAP/kg solids [lb VHAP/lb solids], as applied):		
—stains	1.0	1.0
—washcoats	1.0	0.8
—sealers	1.0	0.8
—topcoats	1.0	0.8
—basecoats	1.0	0.8
—enamels	1.0	0.8
—thinners (maximum % HAP allowable); or	10.0	10.0
(c) As an alternative, use control device; or	1.0	0.8
(d) Use any combination of (a), (b), and (c)	1.0	0.8
Cleaning Operations:		
Strippable spray booth material (maximum VOC content, kg VOC/kg solids [lb VOC/lb solids])	0.8	0.8
Contact Adhesives:		
(a) Use compliant contact adhesives (maximum kg VHAP/kg solids [lb VHAP/lb solids], as applied) based on following criteria:		
i. For aerosol adhesives, and for contact adhesives applied to nonporous substrates	NA	NA
ii. For foam adhesives used in products that meet flammability requirements	1.8	0.2
iii. For all other contact adhesives (including foam adhesives used in products that do not meet flammability requirements); or	1.0	0.2
(b) Use a control device	1.0	0.2

^aThe limits refer to the VHAP content of the coating, as applied.

^bWashcoats, basecoats, and enamels must comply with the limits presented in this table if they are purchased premade, that is, if they are not formulated onsite by thinning other finishing materials. If they are formulated onsite, they must be formulated using compliant finishing materials, i.e., those that meet the limits specified in this table, and thinners containing no more than 3.0 percent HAP by weight.

^cThe control device must operate at an efficiency that is equivalent to no greater than 1.0 kilogram (or 0.8 kilogram) of VHAP being emitted from the affected emission source per kilogram of solids used.

^dThere is no limit on the VHAP content of these adhesives.

^eThe control device must operate at an efficiency that is equivalent to no greater than 1.0 kilogram (or 0.2 kilogram) of VHAP being emitted from the affected emission source per kilogram of solids used.

TABLE 4.—POLLUTANTS EXCLUDED FROM USE IN CLEANING AND WASHOFF SOLVENTS

Chemical name	CAS No.
4-Aminobiphenyl	92671
Styrene oxide	96093
Diethyl sulfate	84675
N-Nitrosomorpholine	59892
Dimethyl formamide	68122
Hexamethylphosphoramide	680319
Acetamide	60355
4,4'-Methylenedianiline	101779
o-Anisidine	90040
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746016
Beryllium salts	
Benzidine	92875
N-Nitroso-N-methylurea	684935
Bis(chloromethyl)ether	542881
Dimethyl carbamoyl chloride	79447
Chromium compounds (hexavalent)	
1,2-Propylenimine (2-Methyl aziridine)	75558
Arsenic and inorganic arsenic compounds	99999904
Hydrazine	302012
1,1-Dimethyl hydrazine	57147
Beryllium compounds	7440417
1,2-Dibromo-3-chloropropane	96123
N-Nitrosodimethylamine	62759
Cadmium compounds	
Benzo (a) pyrene	50328
Polychlorinated biphenyls (Aroclors)	1336363
Heptachlor	76448
3,3'-Dimethyl benzidine	119937
Nickel subsulfide	12035722
Acrylamide	79061
Hexachlorobenzene	118741
Chlordane	57749
1,3-Propane sultone	1120714
1,3-Butadiene	106990
Nickel refinery dust	
2-Acetylaminofluorine	53963
3,3'-Dichlorobenzidine	53963
Lindane (hexachlorocyclohexane, gamma)	58899
2,4-Toluene diamine	95807
Dichloroethyl ether (Bis(2-chloroethyl)ether)	111444
1,2-Diphenylhydrazine	122667
Toxaphene (chlorinated camphene)	8001352
2,4-Dinitrotoluene	121142
3,3'-Dimethoxybenzidine	119904
Formaldehyde	50000
4,4'-Methylene bis(2-chloroaniline)	101144
Acrylonitrile	107131
Ethylene dibromide(1,2-Dibromoethane)	106934
DDE (1,1-p-chlorophenyl 1-2 dichloroethylene)	72559
Chlorobenzilate	510156
Dichlorvos	62737
Vinyl chloride	75014
Coke Oven Emissions	99999908
Ethylene oxide	75218
Ethylene thiourea	96457
Vinyl bromide (bromoethene)	593602
Selenium sulfide (mono and di)	7488564
Chloroform	67663
Pentachlorophenol	87865
Ethyl carbamate (Urethane)	51796

TABLE 4.—POLLUTANTS EXCLUDED FROM USE IN CLEANING AND WASHOFF SOLVENTS—Continued

Chemical name	CAS No.
Ethylene dichloride (1,2-Dichloroethane)	107062
Propylene dichloride (1,2-Dichloropropane)	78875
Carbon tetrachloride	56235
Benzene	71432
Methyl hydrazine	60344
Ethyl acrylate	140885
Propylene oxide	75569
Aniline	62533
1,4-Dichlorobenzene(p)	106467
2,4,6-Trichlorophenol	88062
Bis(2-ethylhexyl)phthalate (DEHP)	117817
o-Toluidine	95534
Propoxur	114261
Trichloroethylene	79016
1,4-Dioxane (1,4-Diethyleneoxide)	123911
Acetaldehyde	75070
Bromoform	75252
Captan	133062
Epichlorohydrin	106898
Methylene chloride (Dichloromethane)	75092
Tetrachloroethylene (Perchloroethylene)	127184
Dibenz (ah) anthracene	53703
Chrysene	218019
Dimethyl aminoazobenzene	60117
Benzo (a) anthracene	56553
Benzo (b) fluoranthene	205992
Antimony trioxide	1309644
2-Nitropropane	79469
1,3-Dichloropropene	542756
7, 12-Dimethylbenz(a)anthracene	57976
Benz(c)acridine	225514
Indeno(1,2,3-cd)pyrene	193395
1,2,7,8-Dibenzopyrene	189559

TABLE 5.—LIST OF VHAP OF POTENTIAL CONCERN IDENTIFIED BY INDUSTRY

Chemical	CAS No.	EPA de minimis, tons/yr
Dimethyl formamide ..	68122	1.0
Formaldehyde	50000	0.2
Methylene chloride	75092	4.0
2-Nitropropane	79469	1.0
Isophorone	78591	0.7
Styrene monomer	1000425	1.0
Phenol	108952	0.1
Diethanolamine	11422	5.0
2-Methoxyethanol	109864	10.0
2-Ethoxyethyl acetate	111159	5.0

TABLE 6.—VHAP OF POTENTIAL CONCERN

CAS No.	Chemical name
"Nonthreshold" Pollutants	
92671	4-Aminobiphenyl.
96093	Styrene oxide.
84675	Diethyl sulfate.

TABLE 6.—VHAP OF POTENTIAL CONCERN—Continued

CAS No.	Chemical name
59892	N-Nitrosomorpholine.
68122	Dimethyl formamide.
80319	Hexamethylphosphoramide.
60355	Acetamide.
101779	4,4'-Methylenedianiline.
90040	o-Anisidine.
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin.
92875	Benzidine
684935	N-Nitroso-N-methylurea.
542881	Bis(chloromethyl)ether.
79447	Dimethyl carbamoyl chloride.
75558	1,2-Propylenimine (2-Methyl aziridine).
57147	1,1-Dimethyl hydrazine.
96123	1,2-Dibromo-3-chloropropane.
62759	N-Nitrosodimethylamine.
50328	Benzo (a) pyrene.
1336363	Polychlorinated biphenyls (Aroclors).
76448	Heptachlor.
119937	3,3'-Dimethyl benzidine.
79061	Acrylamide.
118741	Hexachlorobenzene.
57749	Chlordane.
1120714	1,3-Propane sultone.
106990	1,3-Butadiene.
53963	2-Acetylaminofluorine.
53963	3,3'-Dichlorobenzidine.
58899	Lindane (hexachlorocyclohexane, gamma).
95807	2,4-Toluene diamine.
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether).
122667	1,2 - Diphenylhydrazine.
8001352	Toxaphene (chlorinated camphene).
121142	2,4-Dinitrotoluene.
119904	3,3'-Dimethoxybenzidine.
50000	Formaldehyde.
101144	4,4'-Methylene bis(2-chloroaniline).
107131	Acrylonitrile.
106934	Ethylene dibromide(1,2-Dibromoethane).
72559	DDE (1,1-p-chlorophenyl 1-2 dichloroethylene).
510156	Chlorobenzilate.
62737	Dichlorvos.
75014	Vinyl chloride.
75218	Ethylene oxide.
96457	Ethylene thiourea.
593602	Vinyl bromide (bromoethene).
67663	Chloroform.
87865	Pentachlorophenol.
51796	Ethyl carbamate (Urethane).
107062	Ethylene dichloride (1,2-Dichloroethane).
78875	Propylene dichloride (1,2-Dichloropropane).
56235	Carbon tetrachloride.
71432	Benzene.
140885	Ethyl acrylate.
75569	Propylene oxide.
62533	Aniline.
106467	1,4-Dichlorobenzene(p).
88062	2,4,6-Trichlorophenol.
117817	Bis(2-ethylhexyl)phthalate (DEHP).
95534	o-Toluidine.
114261	Propoxur.

TABLE 6.—VHAP OF POTENTIAL CONCERN—Continued

CAS No.	Chemical name
79016	Trichloroethylene.
123911	1,4-Dioxane (1,4-Diethyleneoxide).
75070	Acetaldehyde.
75252	Bromoform.
133062	Captan.
106898	Epichlorohydrin.
75092	Methylene chloride (Dichloromethane).
127184	Tetrachloroethylene (Perchloroethylene).
53703	Dibenz (ah) anthracene.
218019	Chrysene.
60117	Dimethyl aminoazobenzene.
56553	Benzo (a) anthracene.
205992	Benzo (b) fluoranthene.
79469	2-Nitropropane.
542756	1,3-Dichloropropane.
57976	7,12-Dimethylbenz (a) anthracene.
225514	Benz (c) acridine.
193395	Indeno (1,2,3-cd) pyrene.
189559	1,2,7,8-Dibenzopyrene.
79345	1,1,2,2-Tetrachloroethane.
91225	Quinoline.
75354	Vinylidene chloride (1,1-Dichloroethylene).
87683	Hexachlorobutadiene.
82688	Pentachloronitrobenzene (Quintobenzene).
78591	Isophorone.
79005	1,1,2-Trichloroethane.
74873	Methyl chloride (Chloromethane).
67721	Hexachloroethane.
1582098	Trifluralin.
1319773	Cresols/Cresylic acid (isomers and mixture).
108394	m-Cresol.
75343	Ethylidene dichloride (1,1-Dichloroethane).
95487	o-Cresol.
106445	p-Cresol.
74884	Methyl iodide (Iodomethane).
100425	Styrene*.
107051	Allyl chloride.
334883	Diazomethane.
95954	2,4,5-Trichlorophenol.
133904	Chloramben.
106887	1,2-Epoxybutane.
108054	Vinyl acetate.
126998	Chloroprene.
123319	Hydroquinone.
92933	4-Nitrobiphenyl

"High-Concern" Pollutants

56382	Parathion.
13463393	Nickel Carbonyl.
60344	Methyl hydrazine.
75218	Ethylene oxide.
151564	Ethylene imine.
77781	Dimethyl sulfate.
107302	Chloromethyl methyl ether.
57578	beta-Propiolactone.
100447	Benzyl chloride.
98077	Benzotrichloride.
107028	Acrolein.
584849	2,4-Toluene diisocyanate.
75741	Tetramethyl lead.
78002	Tetraethyl lead.

TABLE 6.—VHAP OF POTENTIAL CONCERN—Continued

CAS No.	Chemical name
12108133	Methylcyclopentadienyl manganese.
624839	Methyl isocyanate.
77474	Hexachlorocyclopentadiene.
62207765	Fluorine.
10210681	Cobalt carbonyl.
79118	Chloroacetic acid.
534521	4,6-Dinitro-o-cresol, and salts.
101688	Methylene diphenyl diisocyanate.
108952	Phenol.
62384	Mercury, (acetato-o) phenyl.
98862	Acetophenone.
108316	Maleic anhydride.
532274	2-Chloroacetophenone.
51285	2,4-Dinitrophenol.
108864	2-Methoxy ethanol.
98953	Nitrobenzene.
74839	Methyl bromide (Bromomethane).
75150	Carbon disulfide.
121697	N,N-Dimethylaniline.

"Unrankable" Pollutants

106514	Quinone.
123386	Propionaldehyde.
120809	Catechol.
85449	Phthalic anhydride.
463531	Carbonyl sulfide.
132649	Dibenzofurans.
100027	4-Nitrophenol.
540841	2,2,4-Trimethylpentane.
11422	Diethanolamine.
822060	Hexamethylene-1,6-diisocyanate
	Glycol ethers ^b
	Polycyclic organic matter ^c

* = Currently an EPA weight of evidence classification is under review.

^a The EPA does not currently have an official weight-of-evidence classification for styrene. For purposes of this rule, styrene is treated as a "nonthreshold" pollutant. (See data report form in appendix A of the hazard ranking technical background document.)

^b Except for 2-ethoxy ethanol, ethylene glycol monobutyl ether, and 2-methoxy ethanol.

^c Except for benzo(b)fluoranthene, benzo(a)anthracene, benzo(a)pyrene, 7,12-dimethylbenz(a)anthracene, benz(c)acridine, chrysene, dibenz(ah)anthracene, 1,2,7,8-dibenzopyrene, indeno(1,2,3-cd)pyrene, but including dioxins and furans.

3. Appendix A of part 63 is amended by adding Method 311 to read as follows:

Appendix A to Part 63—Test Methods**Method 311—Analysis of Hazardous Air Pollutant Compounds in Paints and Coatings by Direct Injection Into a Gas Chromatograph****1. Scope and Application**

1.1 Applicability. This method is applicable for determination of most compounds designated by the U.S. Environmental Protection Agency as volatile hazardous air pollutants (HAP's) (See Reference 1) that are contained in paints and coatings. Styrene, ethyl acrylate, and methyl methacrylate can be measured by ASTM D

4827-93 or ASTM D 4747-87. Formaldehyde can be measured by ASTM PS 9-94 or ASTM D 1979-91. Toluene diisocyanate can be measured in urethane prepolymers by ASTM D 3432-89. Method 311 applies only to those volatile HAP's which are added to the coating when it is manufactured, not to those which may form as the coating cures (reaction products or cure volatiles). A separate or modified test procedure must be used to measure these reaction products or cure volatiles in order to determine the total volatile HAP emissions from a coating. Cure volatiles are a significant component of the total HAP content of some coatings. The term "coating" used in this method shall be understood to mean paints and coatings.

1.2 Principle. The method uses the principle of gas chromatographic separation and quantification using a detector that responds to concentration differences. Because there are many potential analytical systems or sets of operating conditions that may represent useable methods for determining the concentrations of the compounds cited in Section 1.1 in the applicable matrices, all systems that employ this principle, but differ only in details of equipment and operation, may be used as alternative methods, provided that the prescribed quality control, calibration, and method performance requirements are met. Certified product data sheets (CPDS) may also include information relevant to the analysis of the coating sample including, but not limited to, separation column, oven temperature, carrier gas, injection port temperature, extraction solvent, and internal standard.

2. Summary of Method

Whole coating is added to dimethylformamide and a suitable internal standard compound is added. An aliquot of the sample mixture is injected onto a chromatographic column containing a stationary phase that separates the analytes from each other and from other volatile compounds contained in the sample. The concentrations of the analytes are determined by comparing the detector responses for the sample to the responses obtained using known concentrations of the analytes.

3. Definitions [Reserved]**4. Interferences**

4.1 Coating samples of unknown composition may contain the compound used as the internal standard. Whether or not this is the case may be determined by following the procedures of Section 11 and deleting the addition of the internal standard specified in Section 11.5.3. If necessary, a different internal standard may be used.

4.2 The GC column and operating conditions developed for one coating formulation may not ensure adequate resolution of target analytes for other coating formulations. Some formulations may contain nontarget analytes that coelute with target analytes. If there is any doubt about the identification or resolution of any gas chromatograph (GC) peak, it may be necessary to analyze the sample using a different GC column or different GC operating conditions.

4.3 Cross-contamination may occur whenever high-level and low-level samples are analyzed sequentially. The order of sample analyses specified in Section 11.7 is designed to minimize this problem.

4.4 Cross-contamination may also occur if the devices used to transfer coating during the sample preparation process or for injecting the sample into the GC are not adequately cleaned between uses. All such devices should be cleaned with acetone or other suitable solvent and checked for plugs or cracks before and after each use.

5. Safety

5.1 Many solvents used in coatings are hazardous. Precautions should be taken to avoid unnecessary inhalation and skin or eye contact. This method may involve hazardous materials, operations, and equipment. This test method does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this test method to establish appropriate safety and health practices and to determine the applicability of regulatory limitations in regards to the performance of this test method.

5.2 Dimethylformamide is harmful if inhaled or absorbed through the skin. The user should obtain relevant health and safety information from the manufacturer. Dimethylformamide should be used only with adequate ventilation. Avoid contact with skin, eyes, and clothing. In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes. If eyes are affected, consult a physician. Remove and wash contaminated clothing before reuse.

5.3 User's manuals for the gas chromatograph and other related equipment should be consulted for specific precautions to be taken related to their use.

6. Equipment and Supplies

Note: Certified product data sheets (CPDS) may also include information relevant to the analysis of the coating sample including, but not limited to, separation column, oven temperature, carrier gas, injection port temperature, extraction solvent, and internal standard.

6.1 Sample Collection.

6.1.1 Sampling Containers. Dual-seal sampling containers, four to eight fluid ounce capacity, should be used to collect the samples. Glass sample bottles or plastic containers with volatile organic compound (VOC) impermeable walls must be used for corrosive substances (e.g., etch primers and certain coating catalysts such as methyl ethyl ketone (MEK) peroxide). Sample containers, caps, and inner seal liners must be inert to the compounds in the sample and must be selected on a case-by-case basis.

6.1.1.1 Other routine sampling supplies needed include waterproof marking pens, tubing, scrapers/spatulas, clean rags, paper towels, cooler/ice, long handle tongs, and mixing/stirring paddles.

6.1.2 Personal safety equipment needed includes eye protection, respiratory protection, a hard hat, gloves, steel toe shoes, etc.

6.1.3 Shipping supplies needed include shipping boxes, packing material, shipping labels, strapping tape, etc.

6.1.4 Data recording forms and labels needed include coating data sheets and sample can labels.

Note: The actual requirements will depend upon the conditions existing at the source sampled.

6.2 Laboratory Equipment and Supplies.

6.2.1 Gas Chromatograph (GC). Any instrument equipped with a flame ionization detector and capable of being temperature programmed may be used. Optionally, other types of detectors (e.g., a mass spectrometer), and any necessary interfaces, may be used, provided that the detector system yields an appropriate and reproducible response to the analytes in the injected sample. Autosampler injection may be used, if available.

6.2.2 Recorder. If available, an electronic data station or integrator may be used to record the gas chromatogram and associated data. If a strip chart recorder is used, it must meet the following criteria: A 1 to 10 millivolt (mV) linear response with a full scale response time of 2 seconds or less and a maximum noise level of ± 0.03 percent of full scale. Other types of recorders may be used as appropriate to the specific detector installed provided that the recorder has a full scale response time of 2 seconds or less and a maximum noise level of ± 0.03 percent of full scale.

6.2.3 Column. The column must be constructed of materials that do not react with components of the sample (e.g., fused silica, stainless steel, glass). The column should be of appropriate physical dimensions (e.g., length, internal diameter) and contain sufficient suitable stationary phase to allow separation of the analytes. DB-5, DB-Wax, and FFAP columns are commonly used for paint analysis; however, it is the responsibility of each analyst to select appropriate columns and stationary phases.

6.2.4 Tube and Tube Fittings. Supplies to connect the GC and gas cylinders.

6.2.5 Pressure Regulators. Devices used to regulate the pressure between gas cylinders and the GC.

6.2.6 Flow Meter. A device used to determine the carrier gas flow rate through the GC. Either a digital flow meter or a soap film bubble meter may be used to measure gas flow rates.

6.2.7 Septa. Seals on the GC injection port through which liquid or gas samples can be injected using a syringe.

6.2.8 Liquid Charging Devices. Devices used to inject samples into the GC such as clean and graduated 1, 5, and 10 microliter (μ l) capacity syringes.

6.2.9 Vials. Containers that can be sealed with a septum in which samples may be prepared or stored. The recommended size is 25 ml capacity. Mininert® valves have been found satisfactory and are available from Pierce Chemical Company, Rockford, Illinois.

6.2.10 Balance. Device used to determine the weights of standards and samples. An analytical balance capable of accurately weighing to 0.0001 g is required.

7. Reagents and Standards

7.1 Purity of Reagents. Reagent grade chemicals shall be used in all tests. Unless otherwise specified, all reagents shall

conform to the specifications of the Committee on Analytical Reagents of the American Chemical Society, where such specifications are available. Other grades may be used provided it is first ascertained that the reagent is of sufficient purity to permit its use without lessening the accuracy of determination.

7.2 Carrier Gas. Helium carrier gas shall have a purity of 99.995 percent or higher. High purity nitrogen may also be used. Other carrier gases that are appropriate for the column system and analyte may also be used. Ultra-high purity grade hydrogen gas and zero-grade air shall be used for the flame ionization detector.

7.3 Dimethylformamide (DMF). Solvent for all standards and samples. Some other suitable solvent may be used if DMF is not compatible with the sample or coelutes with a target analyte.

Note: DMF may coelute with ethylbenzene or p-xylene under the conditions described in the note under Section 6.2.3.

7.4 Internal Standard Materials. The internal standard material is used in the quantitation of the analytes for this method. It shall be gas chromatography spectrophotometric quality or, if this grade is not available, the highest quality available. Obtain the assay for the internal standard material and maintain at that purity during use. The recommended internal standard material is 1-propanol; however, selection of an appropriate internal standard material for the particular coating and GC conditions used is the responsibility of each analyst.

7.5 Reference Standard Materials. The reference standard materials are the chemicals cited in Section 1.1 which are of known identity and purity and which are used to assist in the identification and quantification of the analytes of this method. They shall be the highest quality available. Obtain the assays for the reference standard materials and maintain at those purities during use.

7.6 Stock Reference Standards. Stock reference standards are dilutions of the reference standard materials that may be used on a daily basis to prepare calibration standards, calibration check standards, and quality control check standards. Stock reference standards may be prepared from the reference standard materials or purchased as certified solutions.

7.6.1 Stock reference standards should be prepared in dimethylformamide for each analyte expected in the coating samples to be analyzed. The concentrations of analytes in the stock reference standards are not specified but must be adequate to prepare the calibration standards required in the method. A stock reference standard may contain more than one analyte provided all analytes are chemically compatible and no analytes coelute. The actual concentrations prepared must be known to within 0.1 percent (e.g., 0.1000 ± 0.0001 g/g solution). The following procedure is suggested. Place about 35 ml of dimethylformamide into a tared ground-glass stoppered 50 ml volumetric flask. Weigh the flask to the nearest 0.1 mg. Add 12.5 g of the reference standard material and reweigh the flask. Dilute to volume with dimethylformamide and reweigh. Stopper the

flask and mix the contents by inverting the flask several times. Calculate the concentration in grams per gram of solution from the net gain in weights, correcting for the assayed purity of the reference standard material.

Note: Although a glass-stoppered volumetric flask is convenient, any suitable glass container may be used because stock reference standards are prepared by weight.

7.6.2 Transfer the stock reference standard solution into one or more Teflon-sealed screw-cap bottles. Store, with minimal headspace, at -10°C to 0°C and protect from light.

7.6.3 Prepare fresh stock reference standards every six months, or sooner if analysis results from daily calibration check standards indicate a problem. Fresh stock reference standards for very volatile HAP's may have to be prepared more frequently.

7.7 Calibration Standards. Calibration standards are used to determine the response of the detector to known amounts of reference material. Calibration standards must be prepared at a minimum of three concentration levels from the stock reference standards (see Section 7.6). Prepare the calibration standards in dimethylformamide (see Section 7.3). The lowest concentration standard should contain a concentration of analyte equivalent either to a concentration of no more than 0.01% of the analyte in a coating or to a concentration that is lower than the actual concentration of the analyte in the coating, whichever concentration is higher. The highest concentration standard should contain a concentration of analyte equivalent to slightly more than the highest concentration expected for the analyte in a coating. The remaining calibration standard should contain a concentration of analyte roughly at the midpoint of the range defined by the lowest and highest concentration calibration standards. The concentration range of the standards should thus correspond to the expected range of analyte concentrations in the prepared coating samples (see Section 11.5). Each calibration standard should contain each analyte for detection by this method expected in the actual coating samples (e.g., some or all of the compounds listed in Section 1.1 may be included). Each calibration standard should also contain an appropriate amount of internal standard material (response for the internal standard material is within 25 to 75 percent of full scale on the attenuation setting for the particular reference standard concentration level). Calibration Standards should be stored for 1 week only in sealed vials with minimal headspace. If the stock reference standards were prepared as specified in Section 7.6, the calibration standards may be prepared by either weighing each addition of the stock reference standard or by adding known volumes of the stock reference standard and calculating the mass of the standard reference material added. Alternative 1 (Section 7.7.1) specifies the procedure to be followed when the stock reference standard is added by volume. Alternative 2 (Section 7.7.2) specifies the procedure to be followed when the stock reference standard is added by weight.

Note: To assist with determining the appropriate amount of internal standard to add, as required here and in other sections of this method, the analyst may find it advantageous to prepare a curve showing the area response versus the amount of internal standard injected into the GC.

7.7.1 Preparation Alternative 1. Determine the amount of each stock reference standard and dimethylformamide solvent needed to prepare approximately 25 ml of the specific calibration concentration level desired. To a tared 25 ml vial that can be sealed with a crimp-on or Mininert[®] valve, add the total amount of dimethylformamide calculated to be needed. As quickly as practical, add the calculated amount of each stock reference standard using new pipets (or pipet tips) for each stock reference standard. Reweigh the vial and seal it. Using the known weights of the standard reference materials per ml in the stock reference standards, the volumes added, and the total weight of all reagents added to the vial, calculate the weight percent of each standard reference material in the calibration standard prepared. Repeat this process for each calibration standard to be prepared.

7.7.2 Preparation Alternative 2. Determine the amount of each stock reference standard and dimethylformamide solvent needed to prepare approximately 25 ml of the specific calibration concentration level desired. To a tared 25 ml vial that can be sealed with a crimp-on or Mininert[®] valve, add the total amount of dimethylformamide calculated to be needed. As quickly as practical, add the calculated amount of a stock reference standard using a new pipet (or pipet tip) and reweigh the vial. Repeat this process for each stock reference standard to be added. Seal the vial after obtaining the final weight. Using the known weight percents of the standard reference materials in the stock reference standards, the weights of the stock reference standards added, and the total weight of all reagents added to the vial, calculate the weight percent of each standard reference material in the calibration standard prepared. Repeat this process for each calibration standard to be prepared.

8. Sample Collection, Preservation, Transport, and Storage

8.1 Copies of material safety data sheets (MSDS's) for each sample should be obtained prior to sampling. The MSDS's contain information on the ingredients, and physical and chemical properties data. The MSDS's also contain recommendations for proper handling or required safety precautions. Certified product data sheets (CPDS) may also include information relevant to the analysis of the coating sample including, but not limited to, separation column, oven temperature, carrier gas, injection port temperature, extraction solvent, and internal standard.

8.2 A copy of the blender's worksheet can be requested to obtain data on the exact coating being sampled. A blank coating data sheet form (see Section 18) may also be used. The manufacturer's formulation information from the product data sheet should also be obtained.

8.3 Prior to sample collection, thoroughly mix the coating to ensure that a

representative, homogeneous sample is obtained. It is preferred that this be accomplished using a coating can shaker or similar device; however, when necessary, this may be accomplished using mechanical agitation or circulation systems.

8.3.1 Water-thinned coatings tend to incorporate or entrain air bubbles if stirred too vigorously; mix these types of coatings slowly and only as long as necessary to homogenize.

8.3.2 Each component of multicomponent coatings that harden when mixed must be sampled separately. The component mix ratios must be obtained at the facility at the time of sampling and submitted to the analytical laboratory.

8.4 Sample Collection. Samples must be collected in a manner that prevents or minimizes loss of volatile components and that does not contaminate the coating reservoir. A suggested procedure is as follows. Select a sample collection container, which has a capacity at least 25 percent greater than the container in which the sample is to be transported. Make sure both sample containers are clean and dry. Using clean, long-handled tongs, turn the sample collection container upside down and lower it into the coating reservoir. The mouth of the sample collection container should be at approximately the midpoint of the reservoir (do not take the sample from the top surface). Turn the sample collection container over and slowly bring it to the top of the coating reservoir. Rapidly pour the collected coating into the sample container, filling it completely. It is important to fill the sample container completely to avoid any loss of volatiles due to volatilization into the headspace. Return any unused coating to the reservoir or dispose as appropriate.

Note: If a company requests a set of samples for its own analysis, a separate set of samples, using new sample containers, should be taken at the same time.

8.5 Once the sample is collected, place the sample container on a firm surface and insert the inner seal in the container by placing the seal inside the rim of the container, inverting a screw cap, and pressing down on the screw cap which will evenly force the inner seal into the container for a tight fit. Using clean towels or rags, remove all residual coating material from the outside of the sample container after inserting the inner seal. Screw the cap onto the container.

8.5.1 Affix a sample label (see Section 18) clearly identifying the sample, date collected, and person collecting the sample.

8.5.2 Prepare the sample for transportation to the laboratory. The sample should be maintained at the coating's recommended storage temperature specified on the Material Safety Data Sheet, or, if no temperature is specified, the sample should be maintained within the range of 5°C to 38°C .

8.9 The shipping container should adhere to U.S. Department of Transportation specification DOT 12-B. Coating samples are considered hazardous materials; appropriate shipping procedures should be followed.

9. Quality Control

9.1 Laboratories using this method should operate a formal quality control program. The minimum requirements of the program should consist of an initial demonstration of laboratory capability and an ongoing analysis of blanks and quality control samples to evaluate and document quality data. The laboratory must maintain records to document the quality of the data generated. When results indicate atypical method performance, a quality control check standard (see Section 9.4) must be analyzed to confirm that the measurements were performed in an in-control mode of operation.

9.2 Before processing any samples, the analyst must demonstrate, through analysis of a reagent blank, that there are no interferences from the analytical system, glassware, and reagents that would bias the sample analysis results. Each time a set of analytical samples is processed or there is a change in reagents, a reagent blank should be processed as a safeguard against chronic laboratory contamination. The blank samples should be carried through all stages of the sample preparation and measurement steps.

9.3 Required instrument quality control parameters are found in the following sections:

9.3.1 Baseline stability must be demonstrated to be ≤ 5 percent of full scale using the procedures given in Section 10.1.

9.3.2 The GC calibration is not valid unless the retention time (RT) for each analyte at each concentration is within ± 0.05 min of the retention time measured for that analyte in the stock standard.

9.3.3 The retention time (RT) of any sample analyte must be within ± 0.05 min of the average RT of the analyte in the calibration standards for the analyte to be considered tentatively identified.

9.3.4 The GC system must be calibrated as specified in Section 10.2.

9.3.5 A one-point daily calibration check must be performed as specified in Section 10.3.

9.4 To establish the ability to generate results having acceptable accuracy and precision, the analyst must perform the following operations.

9.4.1 Prepare a quality control check standard (QCCS) containing each analyte expected in the coating samples at a concentration expected to result in a response between 25 percent and 75 percent of the limits of the calibration curve when the sample is prepared as described in Section 11.5. The QCCS may be prepared from reference standard materials or purchased as certified solutions. If prepared in the laboratory, the QCCS must be prepared independently from the calibration standards.

9.4.2 Analyze three aliquots of the QCCS according to the method beginning in Section 11.5.3 and calculate the weight percent of each analyte using Equation 1, Section 12.

9.4.3 Calculate the mean weight percent ($\bar{X}$) for each analyte from the three results obtained in Section 9.4.2.

9.4.4 Calculate the percent accuracy for each analyte using the known concentrations (Ti) in the QCCS using Equation 3, Section 12.

9.4.5 Calculate the percent relative standard deviation (percent RSD) for each analyte using Equation 7, Section 12, substituting the appropriate values for the relative response factors (RRF's) in said equation.

9.4.6 If the percent accuracy (Section 9.4.4) for all analytes is within the range 90 percent to 110 percent and the percent RSD (Section 9.4.5) for all analytes is ≤ 20 percent, system performance is acceptable and sample analysis may begin. If these criteria are not met for any analyte, then system performance is not acceptable for that analyte and the test must be repeated for those analytes only. Repeated failures indicate a general problem with the measurement system that must be located and corrected. In this case, the entire test, beginning at Section 9.4.1, must be repeated after the problem is corrected.

9.5 Great care must be exercised to maintain the integrity of all standards. It is recommended that all standards be stored at -10°C to 0°C in screw-cap amber glass bottles with Teflon liners.

9.6 Unless otherwise specified, all weights are to be recorded within 0.1 mg.

10. Calibration and Standardization.

10.1 Column Baseline Drift. Before each calibration and series of determinations and before the daily calibration check, condition the column using procedures developed by the laboratory or as specified by the column supplier. Operate the GC at initial (i.e., before sample injection) conditions on the lowest attenuation to be used during sample analysis. Adjust the recorder pen to zero on the chart and obtain a baseline for at least one minute. Initiate the GC operating cycle that would be used for sample analysis. On the recorder chart, mark the pen position at the end of the simulated sample analysis cycle. Baseline drift is defined as the absolute difference in the pen positions at the beginning and end of the cycle in the direction perpendicular to the chart movement. Calculate the percent baseline drift by dividing the baseline drift by the chart width representing full-scale deflection and multiply the result by 100.

10.2 Calibration of GC. Bring all stock standards and calibration standards to room temperature while establishing the GC at the determined operating conditions.

10.2.1 Retention Times (RT's) for Individual Compounds.

Note: The procedures of this subsection are required only for the initial calibration. However, it is good laboratory practice to follow these procedures for some or all analytes before each calibration. The procedures were written for chromatograms output to a strip chart recorder. More modern instruments (e.g., integrators and electronic data stations) determine and print out or display retention times automatically.

The RT for each analyte should be determined before calibration. This provides a positive identification for each peak observed from the calibration standards. Inject an appropriate volume (see Note in Section 11.5.2) of one of the stock reference standards into the gas chromatograph and record on the chart the pen position at the time of the injection (see Section 7.6.1).

Inject an aliquot of the stock reference standard as required in dimethylformamide to achieve a concentration that will result in an on-scale response. Operate the gas chromatograph according to the determined procedures. Select the peak(s) that correspond to the analyte(s) (and internal standard, if used) and measure the retention time(s). If a chart recorder is used, measure the distance(s) on the chart from the injection point to the peak maxima. These distances, divided by the chart speed, are defined as the RT's of the analytes in question. Repeat this process for each of the stock reference standard solutions.

Note: If gas chromatography with mass spectrometer detection (GC-MS) is used, a stock reference standard may contain a group of analytes, provided all analytes are adequately separated during the analysis. Mass spectral library matching can be used to identify the analyte associated with each peak in the gas chromatogram. The retention time for the analyte then becomes the retention time of its peak in the chromatogram.

10.2.2 Calibration. The GC must be calibrated using a minimum of three concentration levels of each potential analyte. (See Section 7.7 for instructions on preparation of the calibration standards.) Beginning with the lowest concentration level calibration standard, carry out the analysis procedure as described beginning in Section 11.7. Repeat the procedure for each progressively higher concentration level until all calibration standards have been analyzed.

10.2.2.1 Calculate the RT's for the internal standard and for each analyte in the calibration standards at each concentration level as described in Section 10.2.1. The RT's for the internal standard must not vary by more than 0.10 minutes. Identify each analyte by comparison of the RT's for peak maxima to the RT's determined in Section 10.2.1.

10.2.2.2 Compare the retention times (RT's) for each potential analyte in the calibration standards for each concentration level to the retention times determined in Section 10.2.1. The calibration is not valid unless all RT's for all analytes meet the criteria given in Section 9.3.2.

10.2.2.3 Tabulate the area responses and the concentrations for the internal standard and each analyte in the calibration standards. Calculate the response factor for the internal standard (RF_i) and the response factor for each compound relative to the internal standard (RRF) for each concentration level using Equations 5 and 6, Section 12.

10.2.2.4 Using the RRF's from the calibration, calculate the percent relative standard deviation (percent RSD) for each analyte in the calibration standard using Equation 7, Section 12. The percent RSD for each individual calibration analyte must be less than 15 percent. This criterion must be met in order for the calibration to be valid. If the criterion is met, the mean RRF's determined above are to be used until the next calibration.

10.3 Daily Calibration Checks. The calibration curve (Section 10.2.2) must be checked and verified at least once each day that samples are analyzed. This is

accomplished by analyzing a calibration standard that is at a concentration near the midpoint of the working range and performing the checks in Sections 10.3.1, 10.3.2, and 10.3.3.

10.3.1 For each analyte in the calibration standard, calculate the percent difference in the RRF from the last calibration using Equation 8, Section 12. If the percent difference for each calibration analyte is less than 10 percent, the last calibration curve is assumed to be valid. If the percent difference for any analyte is greater than 5 percent, the analyst should consider this a warning limit. If the percent difference for any one calibration analyte exceeds 10 percent, corrective action must be taken. If no source of the problem can be determined after corrective action has been taken, a new three-point (minimum) calibration must be generated. This criterion must be met before quantitative analysis begins.

10.3.2 If the RRF_x for the internal standard changes by more than ±20 percent from the last daily calibration check, the system must be inspected for malfunctions and corrections made as appropriate.

10.3.3 The retention times for the internal standard and all calibration check analytes must be evaluated. If the retention time for the internal standard or for any calibration check analyte changes by more than 0.10 min from the last calibration, the system must be inspected for malfunctions and corrections made as required.

11. Procedure

11.1 All samples and standards must be allowed to warm to room temperature before analysis. Observe the given order of ingredient addition to minimize loss of volatiles.

11.2 Bring the GC system to the determined operating conditions and condition the column as described in Section 10.1.

Note: The temperature of the injection port may be an especially critical parameter. Information about the proper temperature may be found on the CPDS.

11.3 Perform the daily calibration checks as described in Section 10.3. Samples are not to be analyzed until the criteria in Section 10.3 are met.

11.4 Place the as-received coating sample on a paint shaker, or similar device, and shake the sample for a minimum of 5 minutes to achieve homogenization.

11.5 Note: The steps in this section must be performed rapidly and without interruption to avoid loss of volatile organics. These steps must be performed in a laboratory hood free from solvent vapors. All weights must be recorded to the nearest 0.1 mg.

11.5.1 Add 16 g of dimethylformamide to each of two tared vials (A and B) capable of being septum sealed.

11.5.2 To each vial add a weight of coating that will result in the response for the major constituent being in the upper half of the linear range of the calibration curve.

Note: The magnitude of the response obviously depends on the amount of sample injected into the GC as specified in Section 11.8. This volume must be the same as used for preparation of the calibration curve, otherwise shifts in compound retention times may occur. If a sample is prepared that results in a response outside the limits of the calibration curve, new samples must be prepared; changing the volume injected to bring the response within the calibration curve limits is not permitted.

11.5.3 Add a weight of internal standard to each vial (A and B) that will result in the response for the internal standard being between 25 percent and 75 percent of the linear range of the calibration curve.

11.5.4 Seal the vials with crimp-on or Mininert[®] septum seals.

11.6 Shake the vials containing the prepared coating samples for 60 seconds. Allow the vials to stand undisturbed for ten minutes. If solids have not settled out on the bottom after 10 minutes, then centrifuge at 1,000 rpm for 5 minutes. The analyst also has the option of injecting the sample without allowing the solids to settle.

11.7 Analyses should be conducted in the following order: daily calibration check sample, method blank, up to 10 injections from sample vials (i.e., one injection each from up to five pairs of vials, which corresponds to analysis of 5 coating samples).

11.8 Inject the prescribed volume of supernatant from the calibration check sample, the method blank, and the sample vials onto the chromatographic column and record the chromatograms while operating the system under the specified operating conditions.

Note: The analyst has the option of injecting the unseparated sample.

12. Data Analysis and Calculations

12.1 Qualitative Analysis. An analyte (e.g., those cited in Section 1.1) is considered tentatively identified if two criteria are satisfied: (1) elution of the sample analyte within ±0.05 min of the average GC retention time of the same analyte in the calibration standard; and (2) either (a) confirmation of the identity of the compound by spectral matching on a gas chromatograph equipped with a mass selective detector or (b) elution of the sample analyte within ±0.05 min of the average GC retention time of the same analyte in the calibration standard analyzed on a dissimilar GC column.

12.1.1 The RT of the sample analyte must meet the criteria specified in Section 9.3.3.

12.1.2 When doubt exists as to the identification of a peak or the resolution of two or more components possibly comprising one peak, additional confirmatory techniques (listed in Section 12.1) must be used.

12.2 Quantitative Analysis. When an analyte has been identified, the quantification of that compound will be based on the internal standard technique.

12.2.1 A single analysis consists of one injection from each of two sample vials (A and B) prepared using the same coating. Calculate the concentration of each identified analyte in the sample as follows:

$$\text{HAP}_{wt\%} = 100 \times \frac{(A_x)(W_{is})}{(A_{is})(RRF_x)(W_x)} \quad \text{Eq. (1)}$$

where:

HAP_{wt%} = weight percent of the analyte in coating.

A_x = Area response of the analyte in the sample.

W_{is} = Weight of internal standard added to sample, g.

A_{is} = Area response of the internal standard in the sample.

RRF_x = Mean relative response factor for the analyte in the calibration standards.

W_x = Weight of coating added to the sample solution, g.

12.2.2 Report results for duplicate analysis (sample vials A and B) without correction.

12.3 Precision Data. Calculate the percent difference between the measured concentrations of each analyte in vials A and B as follows.

12.3.1 Calculate the weight percent of the analyte in each of the two sample vials as described in Section 12.2.1.

12.3.2 Calculate the percent difference for each analyte as:

$$\% \text{Diff}_i = 100 \times \frac{|A_i - B_i|}{\frac{(A_i + B_i)}{2}} \quad \text{Eq. (2)}$$

where A_i and B_i are the measured concentrations of the analyte in vials A and B.

12.4 Calculate the percent accuracy for analytes in the QCCS (See Section 9.4) as follows:

$$\% \text{ Accuracy}_x = 100 \times \frac{\bar{X}_x}{T_x} \quad \text{Eq. (3)}$$

where X_x is the mean measured value and T_x is the known true value of the analyte in the QCCS.

12.5 Obtain retention times (RT's) from data station or integrator or, for chromatograms from a chart recorder, calculate the RT's for analytes in the

calibration standards (See Section 10.2.2.2) as follows:

$$\text{RT} = \frac{\text{Distance from injection to peak maximum}}{\text{Recorder chart speed}} \quad \text{Eq. (4)}$$

12.6 Calculate the response factor for the internal standard (See Section 10.2.2.3) as follows:

$$\text{RF}_{is} = \frac{A_{is}}{C_{is}} \quad \text{Eq. (5)}$$

where:

A_{is} = Area response of the internal standard.

C_{is} = Weight percent of the internal standard.

12.7 Calculate the relative response factors for analytes in the calibration standards (See Section 10.2.2.3) as follows:

where:

$$\text{RRF}_x = \frac{A_x}{\text{RF}_{is} C_x} \quad \text{Eq. (6)}$$

RRF_x = Relative response factor for an individual analyte.

A_x = Area response of the analyte being measured.

C_x = Weight percent of the analyte being measured.

12.8 Calculate the percent relative standard deviation of the relative response factors for analytes in the calibration standards (See Section 10.2.2.4) as follows:

$$\% \text{RSD} = 100 \times \frac{\sqrt{\frac{\sum_{i=1}^n (\text{RRF}_x - \overline{\text{RRF}_x})^2}{n-1}}}{\overline{\text{RRF}_x}} \quad \text{Eq. (7)}$$

where:

n = Number of calibration concentration levels used for an analyte.

RRF_x = Individual RRF for an analyte.

$\overline{\text{RRF}_x}$ = Mean of all RRF's for an analyte.

12.9 Calculate the percent difference in the relative response factors between the

calibration curve and the daily calibration checks (See Section 10.3) as follows:

$$\% \text{ Difference} = \frac{|\overline{\text{RRF}_x} - \text{RRF}_c|}{\overline{\text{RRF}_x}} \times 100 \quad \text{Eq. (8)}$$

where:

$\overline{\text{RRF}_x}$ = mean relative response factor from last calibration.

RRF_c = relative response factor from calibration check standard.

13. Measurement of Reaction Byproducts That are HAP. [Reserved]

14. Method Performance. [Reserved]

15. Pollution Prevention. [Reserved]

16. Waste Management

16.1 The coating samples and laboratory standards and reagents may contain compounds which require management as hazardous waste. It is the laboratory's responsibility to ensure all wastes are

managed in accordance with all applicable laws and regulations.

16.2 To avoid excessive laboratory waste, obtain only enough sample for laboratory analysis.

16.3 It is recommended that discarded waste coating solids, used rags, used paper towels, and other nonglass or nonsharp waste materials be placed in a plastic bag before disposal. A separate container, designated "For Sharp Objects Only," is recommended for collection of discarded glassware and other sharp-edge items used in the laboratory. It is recommended that unused or excess samples and reagents be placed in a solvent-resistant plastic or metal container with a lid or cover designed for flammable liquids. This container should not be stored in the area where analytical work is performed. It is recommended that a record be kept of all compounds placed in the container for identification of the contents upon disposal.

17. References

1. Clean Air Act Amendments, Public Law 101-549, Titles I-XI, November, 1990.
2. Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection

into a Gas Chromatograph. ASTM Designation D3792-79.

3. Standard Practice for Sampling Liquid Paints and Related Pigment Coatings. ASTM Designation D3925-81.

4. Standard Test Method for Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings by Direct Injection into a Gas Chromatograph. ASTM Designation D4457-85.

5. Standard Test Method for Determining the Unreacted Monomer Content of Latexes Using Capillary Column Gas Chromatography. ASTM Designation D4827-93.

6. Standard Test Method for Determining Unreacted Monomer Content of Latexes Using Gas-Liquid Chromatography. ASTM Designation D 4747-87.

7. Method 301—"Field Validation of Pollutant Measurement Methods from Various Waste Media," 40 CFR 63, Appendix A.

8. "Reagent Chemicals, American Chemical Society Specifications," American Chemical

Society, Washington, DC. For suggestions on the testing of reagents not listed by the American Chemical Society, see "Reagent Chemicals and Standards" by Joseph Rosin, D. Van Nostrand Co., Inc., New York, NY and the "United States Pharmacopeia."

18. Tables, Diagrams, Flowcharts, and Validation Data

Agency: _____
 Inspector: _____
 Date/Time: _____
 Sample ID#: _____
 Source ID: _____
 Coating Name/Type: _____
 Plant Witness: _____
 Type Analysis Required: _____
 Special Handling: _____
 Sample Container Label _____
 Coating Data _____
 Date: _____
 Source: _____

Data	Sample ID No.	Sample ID No.
Coating:		
Supplier Name		
Name and Color of Coating		
Type of Coating (primer, clearcoat, etc.)		
Identification Number for Coating		
Coating Density (lbs/gal)		
Total Volatiles Content (wt percent)		
Water Content (wt percent)		
Exempt Solvents Content (wt percent)		
VOC Content (wt percent)		
Solids Content (vol percent)		
Diluent Properties:		
Name		
Identification Number		
Diluent Solvent Density (lbs/gal)		
VOC Content (wt percent)		
Water Content (wt percent)		
Exempt Solvent Content (wt percent)		
Diluent/Solvent Ratio (gal diluent solvent/gal coating)		

Stock Reference Standard

Name of Reference Material: _____
 Supplier Name: _____
 Lot Number: _____
 Purity: _____
 Name of Solvent Material: _____
 Dimethylformamide _____
 Supplier Name: _____
 Lot Number: _____
 Purity: _____
 Date Prepared: _____
 Prepared By: _____
 Notebook/page no.: _____

PREPARATION INFORMATION

1. Weight Empty Flask g
2. Weight Plus DMF g

PREPARATION INFORMATION— Continued

3. Weight Plus Reference Material g
4. Weight After Made to Volume g
5. Weight DMF (lines 2-1+3-4) g
6. Weight Ref. Material (lines 3-2) g
7. Corrected Weight of Reference Material (line 6 times purity) g
8. Fraction Reference Material in Standard (Line 7 + Line 5) soln. g/g
9. Total Volume of Standard Solution ml
10. Weight Reference Material per ml of Solution (Line 7 + Line 9) g/ml

PREPARATION INFORMATION— Continued

Laboratory ID No. for this Standard: _____
 Expiration Date for this Standard: _____
CALIBRATION STANDARD
 Date Prepared: _____
 Date Expires: _____
 Prepared By: _____
 Notebook/page: _____
 Calibration Standard Identification No.: _____
 Final Weight Flask Plus Reagents g
 Weight Empty Flask g
 Total Weight Of Reagents g

[illegible][illegible]

Calibration Date: _____

Analyte	Calib. STD ID	Calib. STD ID	Calib. STD ID	Mean	percent RSD of RF	Is RT within ±0.05 min of RT for stock? (Y/N)	Is percent RSD <30% (Y/ N)
Name:							
RT							
RF							
Name:							
RT							
RF							
Name:							
RT							
RF							
Name:							
RT							
RF							
Name:							
RT							
RF							
Name:							
RT							
RF							
Name:							
RT							
RF							

Analyst:

Date:

Calibration Check Standard ID No.:

Expiration Date:

[illegible]

* Retention time (RT) change (difference) must be less than ± 0.10 minutes.

• Response factor (RF) change (difference) must be less than 20 percent for each analyte and for the internal standard.

Analyzed By:

Vial A ID No.:

Date:

Vial B ID No.:

Sample preparation information	Vial A (g)	Vial B (g)
Measured:		
wt empty vial		
wt plus DMF		
wt plus sample		
wt plus internal		
standard		
Calculated:		
wt DMF		
wt sample		
wt internal standard		

ANALYSIS RESULTS: DUPLICATE SAMPLES

Analyte	Area response		RF	Wt percent in sample		
	Vial A	Vial B		Vial A	Vial B	Average
.....						
.....						
.....						
.....						
.....						
.....						
.....						
.....						
.....						
.....						
Internal Standard						

[FR Doc. 95-29358 Filed 12-6-95; 8:45 am]

BILLING CODE 6560-50-P

(Authority: 39 U.S.C. 3220(a)(2), 5 U.S.C. 301)

3. Section 1.701 is revised to read as follows:

§ 1.701 Contact person for missing children official mail program.

The Department of Veterans Affairs contact person for the Missing Children Official Mail Program is: Mrs. Roslynd R. Stewart, Information Management Service (045A4), Office of Policy and Program Assistance, Office of Information Resources Management, Office of Management, Department of Veterans Affairs, 810 Vermont Avenue, NW., Washington, DC 20420-0001. Telephone: (202) 565-8949.

(Authority: 39 U.S.C. 3220(a)(2), 5 U.S.C. 301)

§ 1.702 [Amended]

4. In § 1.702, paragraph (b) is amended by removing "If doing so would be cost effective, the Department of Veterans Affairs shall insert via automated insertion equipment" and adding, in its place, "The Department of Veterans Affairs will insert"; by removing "types of"; by removing "data processing" and adding, in its place, "automation"; and by removing "may be" and adding, in its place, "are".

5. In § 1.702, paragraph (c) is amended by removing "will be" in both places and adding, in its place in both places, "is"; and by removing "the Mail and Travel Policy Division" and adding, in its place, "Information Management Service".

6. In § 1.702, paragraph (d) is amended by removing "(i.e. use or destroy)"; by removing "will be" and adding, in its place, "is"; by removing "contract" and adding, in its place, "contact"; by removing "envelopes"; and by removing "as to" and adding, in its place, "as of".

7. In § 1.702, paragraph (h) is amended by removing "regulations" and adding, in its place, "regulations".

8. Section 1.703 is revised to read as follows:

§ 1.703 Percentage estimate.

It is the Department of Veterans Affairs objective that 20 percent of its first class official mail addressed to the public contain missing children photographs and information.

(Authority: 39 U.S.C. 3220(a)(2), 5 U.S.C. 301)

§ 1.705 [Amended]

9. In § 1.705, paragraph (a) is amended by removing "which are ordered and/or stocked in quantities which" and adding, in its place,

"ordered and stocked in quantities that".

10. In § 1.705, paragraph (c) is amended by removing "and/or" and adding, in its place, "or".

11. In § 1.705, paragraph (e) is amended by removing "return, address areas" and adding, in its place, "return address area"; and by removing "OJDP" and adding, in its place, "Office of Juvenile Justice and Delinquency Prevention".

[FR Doc. 95-23146 Filed 9-18-95; 8:45 am]
BILLING CODE 3220-01-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 9 and 63

[AD-FRL-5272-8]

RIN 2060-AD02

Federal Standards for Marine Tank Vessel Loading Operations and National Emission Standards for Hazardous Air Pollutants for Marine Tank Vessel Loading Operations

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates standards under section 183(f) of the Clean Air Act (the Act) and requires reasonably available control technology (RACT) to limit air emissions of volatile organic compounds (VOC) and hazardous air pollutants (HAP) from new and existing marine tank vessel loading operations. VOC emissions, together with nitrogen oxides are precursors to the formation of tropospheric ozone, which can impair lung capacity, cause eye, nose and throat irritation, timber and other valuable crops such as soybeans and cotton. The health effects of exposure to HAPs can include cancer, respiratory irritation and damage to the nervous system. An additional set of standards promulgate national emission standards for hazardous air pollutants (NESHAP) under section 112 of the Act for marine tank vessel loading operations and require existing and new major sources to control emissions using maximum achievable control technology (MACT) to control HAP.

EFFECTIVE DATE: This regulation is effective September 19, 1995. See **SUPPLEMENTARY INFORMATION** section concerning judicial review.

ADDRESSES: Technical Support Document. The Technical Support Document (TSD) for the promulgated

standards may be obtained from the U.S. Department of Commerce, National Technical Information Service (NTIS), Springfield, Virginia 22161, telephone number (703) 487-4650. Please refer to "Federal Standards for Marine Tank Vessel Loading Operations and National Emission Standards For Hazardous Air Pollutants For Marine Tank Vessel Loading Operations—Technical Support Document for Final Standards." Document Number PB95-234514. The TSD contains: (1) a summary of public comments made on the proposed standards and the Administrator's response to the comments and (2) a summary of the changes made to the standards since proposal.

Electronic versions of the promulgation TSD as well as this final rule are available for download from the EPA's Technology Transfer Network (TTN), a network of electronic bulletin boards developed and operated by the Office of Air Quality Planning and Standards (select "CAAA" "Title III"). The TTN provides information and technology exchange in various areas of air pollution control. The service is free, except for the cost of a phone call. Dial (919) 541-5742 for data transfer of up to a 14,400 bits per second (bps). If more information on TTN is needed, contact the systems operator at (919) 541-5384. A copy of the TSD has also been placed in the Docket at the address given below.

Docket. Docket No. A-90-44, containing supporting information used in developing the promulgated standards, is available for public inspection and copying from 8 a.m. to 4 p.m., Monday through Friday, at the EPA's Air and Radiation Docket and Information Center, Waterside Mall, Room M-1500, Ground Floor, 401 M Street SW., Washington, DC 20460. A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: For information concerning the standards or technical aspects, contact Mr. David Markwordt at (919) 541-0837, Emission Standards Division (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

SUPPLEMENTARY INFORMATION: Under section 307(b)(1) of the Act, judicial review of NESHAP is available only by the filing of a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days of today's publication of this rule. Under section 307(b)(2) of the Act, the requirements that are the subject of today's notice may not be challenged later in civil or criminal proceedings.

brought by the EPA to enforce these requirements.

The information presented in this preamble is organized as follows:

- I. The Standards
- II. Summary of Impacts
- III. Significant Changes to the Proposed Standards
 - A. Public Participation
 - B. Comments on the Proposed Standards
 - C. Significant Changes
 - D. Minor Changes
 - E. Other Significant Issues
- IV. Administrative Requirements

- A. Docket
- B. Paperwork Reduction Act
- C. Administrative Designation and Regulatory Analysis
- D. Regulatory Flexibility Act
- E. Unfunded Mandates Act

I. The Standards

A summary of today's final standards is listed in Table 1. Included in this table are applicability cutoffs based on annual throughput (under section 183(f)) and HAP emissions (under section 112), separation of marine tank

vessel loading operations at petroleum refineries (which are now included under the petroleum refineries source category), and emission standards based on subcategory determinations for offshore terminals and the Alyeska Pipeline Service Company's (APSC's) Valdez Marine Terminal (VMT). The promulgated regulations allow for several alternative compliance technologies to allow owners or operators maximum compliance flexibility.

TABLE 1.—FINAL STANDARDS, NATIONAL COSTS, AND EMISSION REDUCTIONS

Section of act	Subcategory	Standard	Emission reduction, Mg/yr	Annual cost, \$MM
183(f)	New and existing terminals having throughput of ≥ 1.6 billion liters per year (10 million barrels per year) of gasoline or ≥ 32 billion liters per year (200 million barrels per year) of crude oil.	98 percent reduction in emissions if using combustion techniques; 95 percent reduction in emissions if using recovery techniques.	13,000 (VOC), 900 (HAP).	20–40.
112	Existing major source terminals having emissions of hazardous air pollutants (HAP) of 10/25 tons per year or more from loading of marine tank vessels.	97 percent reduction in HAP emissions	7,000 (VOC), 750 (HAP).	20–40.
112	Existing major source terminals collocated at petroleum refineries having HAP emissions of 10/25 tons per year or more from loading of marine tank vessels; new major source terminals regardless of HAP emissions from marine tank vessel loading (both existing and new sources are regulated under the Gasoline Refineries NESHAP).	97 percent reduction in HAP emissions for existing sources, 98 percent reduction in HAP emissions for new sources; emissions averaging with petroleum refinery emissions points is allowed.	Impacts included in previous subcategory data.	Impacts included in previous subcategory data.
112	Existing major source terminals having HAP emissions of less than 10/25 tons per year from loading of marine tank vessels.	No control	None	None.
112	New major source terminals regardless of HAP emissions from marine tank vessel loading.	98 percent reduction in HAP emissions	None	None.
112 and 183(f)	Existing major source terminals located more than 0.8 kilometers (0.5 miles) offshore.	No control	None	None.
112	New major source terminals located more than 0.8 kilometers (0.5 miles) offshore.	95 percent reduction in HAP emissions	None	None.
112 and 183(f)	Alyeska Pipeline Service Company's Valdez Marine Terminal.	98 percent reduction in emissions with maximum throughput limits.	19,000 (VOC), 2,500 (HAP).	20.

Sources required to reduce emissions are also required to monitor the performance of control technology installed to achieve the required emissions reductions. Baseline parameters may be established by owners or operators during initial performance tests, or continuous emissions monitoring devices may be used to provide indicators of performance. The baseline parameters may be based on manufacturer's recommended operating parameters or other parameters selected by the source and approved by the Administrator.

Sources are also required to develop and implement an operation and maintenance plan that describes a program of corrective action for varying (i.e., exceeding baseline parameters) air pollution control equipment and monitoring equipment used to comply with these emissions standards. This plan includes operating parameters that shall be monitored and recorded as indicators of proper operation of the air pollution control devices.

In developing these final monitoring requirements and compliance provisions, the Agency has provided

significant flexibility to owners or operators of sources required to reduce emissions in regard to selecting monitoring protocols, yet has assured compliance with the standards. Compliance is assured through reporting and recordkeeping requirements that specify annual reports of system performance. This reporting interval is compressed to semi-annual for sources that experience excess emissions.

Owners or operators of all marine tank vessel loading operations subject to the federal standards promulgated

under section 183(f) of the Act (RACT sources) are required to commence construction of its vapor collection system and air pollution control device(s) within 2 years from September 19, 1995. These RACT sources are required to complete the installation of the control technology needed to comply with the standards within 3 years from September 19, 1995. Owners or operators of new RACT sources with an initial startup after September 21, 1998 are required to comply with all requirements upon startup. A RACT source may request a waiver of final compliance for up to 1 year if it can prove that the additional time is necessary for the installation of controls.

Owners or operators of marine tank vessel loading operations subject only to the requirements promulgated under section 112(d) of the Act (MACT standards) are required to install the control technology needed to comply with the standards within 4 years from September 19, 1995. Owners or operators of new MACT-only sources with initial startup after September 20, 1999 are required to comply with all requirements upon startup.

The VMT owners or operators are required to install the control technology needed to comply with the standards within 30 months from September 19, 1995.

II. Summary of Impacts

These standards will reduce nationwide emissions of hazardous air pollutants (HAP) from marine tank vessel loading operations by approximately 4,150 Mg (4,565 tons) after 1999 compared to the emissions that would result in the absence of the standards. These standards will reduce emissions of volatile organic compounds (VOC) from marine tank vessel loading operations by approximately 39,000 Mg (42,900 tons) after 1999 compared to the emissions that would result in the absence of the standards. No significant adverse secondary air, water, solid waste, or energy impacts are anticipated from the promulgation of these standards.

The implementation of this regulation is expected to result in nationwide annualized costs for existing marine tank vessel loading operations of \$60 million to \$100 million beyond baseline based on an analysis of applying controls to all existing facilities not currently controlled to the level of the standards. Nationwide capital costs expected to result from these regulations are approximately \$266 million to \$440 million.

As discussed in this preamble under Regulatory Flexibility Act Compliance,

the economic impact analysis performed for this rulemaking showed that the estimated maximum price increases for the affected products varied, but were not large (less than 1%). These price-increase estimates reflect the control cost increases for transporting crude and products. Because these increases are small and because the elasticities of demand for petroleum products are small, estimated percent output reductions were minimal. Correspondingly, estimated employment reductions were also relatively small.

Potentially significant economic impacts on some of the smaller affected terminal operations were identified, although the decision not to require emission controls for existing smaller operations greatly reduces the potential for adverse economic impacts on small terminal operations. These potential impacts would result from the high per barrel control cost differential between the smaller and larger terminal operations that would need to control emissions. Some of these smaller terminal operations, to the extent that they are competing with nearby larger or unaffected terminal operations, could have had difficulty raising prices to cover cost increases and could have been significantly adversely impacted by this rule.

The potential economic impact on marine tank vessel owners was substantially reduced because of the decision not to require emission controls on small existing terminals in this rulemaking. Because only a small percentage of U.S. marine transported volume of products will be impacted by the standard, only a relatively small percentage of U.S. marine tank vessels will need to retrofit. Thus, only the vessels that will need the least cost to retrofit (most likely the larger, newer, double-skin vessels) will do so, leading to some degree of dedicated service. It is expected that vessel owners that do retrofit will be able to pass most retrofit costs forward in terms of higher prices.

III. Significant Changes to the Proposed Standards

Proposed standards for marine tank vessel loading operations were published in the Federal Register on May 13, 1994 (59 FR 25004). Under section 183(f) of the Act, the proposed rule would have required a 98 percent reduction in emissions (or a 95 percent reduction, if recovery techniques were used) from marine tank vessel loading and unloading operations that load either 100 million barrels per year of crude oil or 5 million barrels per year of gasoline. Sources would have had 2

years to comply with these RACT standards. Under section 112(d) of the Act, the proposed rule also would have required owners or operators of major sources that emit 1 ton per year or more of HAP from marine tank vessel loading and unloading operations to reduce total HAP emissions by at least 93 percent. Sources would have had 3 years to comply with these MACT standards. The control devices used to meet these standards were required to be operated at 98 and 95 percent efficiencies for combustion and recovery control technologies respectively. The EPA also proposed to regulate emissions from ballasting.

Three alternatives were proposed to ensure vessel tightness: (1) Pressure test the vessel, (2) perform a leak test on all components using Method 21 of appendix A of 40 CFR part 60, or (3) load the vessel at less than atmospheric pressure.

Proposed monitoring requirements required owners or operators to monitor any valves that could divert flow from a control device if those bypass valves could not be secured. Monitoring criteria were also proposed for combustion devices, carbon adsorbers, condensers, absorbers, and flares. Owners or operators were generally required to establish operating parameters during an initial performance test and then monitor combustion temperature for combustion devices, VOC concentration in the exhaust stream for carbon adsorbers, exhaust stream temperature for condensers, VOC outlet concentration for absorbers, and continuous presence of a flame and the vent stream flow for flares. Criteria to apply for and obtain approval for alternative monitoring criteria (and for alternative monitoring devices) were also specified in the proposed rule.

Under the proposed rule, owners or operators of sources required to install controls would have had to fulfill the reporting and recordkeeping requirements of the part 63 General Provisions, including submittal of the following reports: (1) Initial notification that the source is subject to the standards, (2) notification of initial performance test, (3) initial notification of compliance status, (4) annual excess emissions and monitoring system performance report and/or summary report, and (5) an annual emissions estimation report. These sources would also have been required to maintain documentation that vessels loaded at the facility were vapor tight. All information was to have been made readily available to the Administrator or

delegated State authority for a minimum of 5 years.

In addition, the Agency requested comment on several issues, including the subcategorization of certain types of terminals. On August 31, 1994, the Agency published a notice reopening the comment period to request comment on amending the Marine Tank Vessel Loading and the Petroleum Refinery source categories to move marine terminals collocated at petroleum refineries to the Petroleum Refineries source category (59 FR 44955). On March 8, 1995, the Agency reopened the comment period to request comment on extending the proposed compliance dates (60 FR 12703).

A. Public Participation

Prior to proposal of the standards, interested parties were advised by public notice in the Federal Register (56 FR 1186) of a meeting of the National Air Pollution Control Techniques Advisory Committee to discuss the regulation of this source category. This meeting was held on January 31, 1991. The meeting was open to the public, and each attendee was given an opportunity to comment on the standards recommended for proposal.

The standards were proposed, and the preamble was published in the Federal Register on May 13, 1994 (59 FR 25004). The preamble to the proposed standards discussed the availability of the regulatory text and proposal TSD, which described the regulatory alternatives considered and the impacts of those alternatives. Public comments were solicited at the time of proposal, and copies of the regulatory text and TSD were distributed to interested parties. Electronic versions of the preamble, regulation, and TSD were made available to interested parties via the TTN (see ADDRESSES section of this preamble).

To provide interested persons the opportunity for oral presentation of data, views, or arguments concerning the proposed standards, a public hearing was held on June 15, 1994 in Research Triangle Park, North Carolina. The public comment period was from May 13 to July 18, 1994. The Agency also reopened the public comment period for specific comments on two occasions—August 31, 1994 (59 FR 44955) and March 8, 1995 (60 FR 12723). In all, over 150 comment letters were received (including seven duplicates). Additional information received from interested parties but not submitted directly to the docket was included in the docket as additional comments on the proposed regulation. Information submitted after the close of

the comment period is also included in the docket and may appear on the docket index as public comments in docket category IV-D. The comments have been carefully considered, and changes have been made to the proposed standards when determined by the Administrator to be appropriate.

B. Comments on the Proposed Standards

Comments on the proposed standards were received from 143 commenters composed mainly of States, environmental groups, private citizens, control device vendors, industry, and trade associations. A detailed discussion of these comments and responses can be found in the promulgation TSD, which is referred to in the ADDRESSES section of this preamble. The summary of comments and responses in the TSD serves as the basis for the revisions that have been made to the regulations between proposal and promulgation. Most of the comment letters contained multiple comments. A summary of the revisions to the regulations along with discussion of the comments on the major issues is provided below. In the TSD, the comments have been divided into the following areas:

- (1) Applicability of standards.
- (2) Inclusion of certain terminals with the petroleum refinery source category.
- (3) Subcategorization issues.
- (4) RACT/MACT.
- (5) Compliance schedule for Titles I and III standards.
- (6) Compliance, performance testing, and monitoring requirements.
- (7) Vapor tightness requirements.
- (8) Leak detection and repair.
- (9) Reporting and recordkeeping requirements.
- (10) General provisions interaction.
- (11) Wording of regulation.
- (12) Administrative record/sources of information.
- (13) Cost effectiveness/impacts.
- (14) Miscellaneous.
- (15) Comments on proposed appendices to 40 CFR part 64.

C. Significant Changes

Several changes have been made since the proposal of these standards. The majority of the changes have been made to clarify portions of the rule that were unclear to the commenters. A summary of the major changes is presented below.

(1) *Removal of unloading operations (ballasting) from the source category.* In the proposed rule, the Agency included regulations proscribing emissions from ballasting of vessels following unloading of vessels. Comments asserted that ballasting operations are performed by vessel operators, not by

the regulated terminal sources. The Agency agrees with this interpretation of the affected source. The Agency also agrees that regulating ballasting operations would be difficult to enforce. The Agency's intent in prohibiting ballasting emissions in the proposed regulation was to provide a cross-reference with existing Coast Guard regulations addressing ballasting in vessels. The Coast Guard rules require vessels to have segregated ballast tanks for crude oil loadings. The Agency sees no benefit to restating Coast Guard requirements for ballasting. Moreover, EPA agrees that the relatively low amount of actual emissions associated with ballasting does not justify dual regulation of ballasting. As discussed in the proposal TSD, the total VOC emissions from crude oil tankship ballasting were estimated to be approximately 950 Mg/yr. Based on the portion of HAP in crude oil vapor, total HAP emissions from ballasting are less than 120 Mg/yr. Ballasting emissions will diminish in the future because tankships built since 1980 are required by domestic law and international agreement to use segregated ballast tanks that do not emit vapors during ballasting. Therefore, in order to prevent confusion in the regulated community, the Agency does not address ballasting or bunkering emissions in the final regulation. The Agency defers to the U.S. Coast Guard's existing standards (33 CFR parts 155 and 157; and 46 CFR parts 30 et al.).

(2) *Extension of the compliance schedule for section 183(f) ("Title I") and section 112 ("Title III") standards.* In the proposed rule, EPA proposed to establish compliance deadlines of 2 years for the section 183(f) standards, and 3 years for the section 112 standards. The Agency received numerous comments regarding these schedules that stated the length of the compliance periods was insufficient to comply with the standards. Commenters noted that facilities' abilities to install pollution control devices are constrained by several factors, including the following: (1) The limited number of contractors experienced in installing control equipment in marine loading facilities; (2) the numerous facilities that will need to meet the standards at the same time; and (3) the lead time needed to meet permitting and safety requirements from permitting authorities and the U.S. Coast Guard.

Commenters stated that EPA had discretion to extend the compliance period under section 183(f), noting the ambiguity of the term "effective date" and that the evidence indicated that the proposed emission control technologies

would not be "reasonably available, considering costs, nonair-quality benefits, environmental impacts, energy requirements, and safety factors" within 2 years. Commenters also noted that EPA had the authority to provide for a waiver of compliance with MACT standards under section 112 for up to 1 year if certain findings were made.

On March 8, 1995, EPA reopened the comment period to receive more comments on the issue of whether the compliance periods for the RACT and MACT regulations should be extended. Numerous commenters indicated support for extending the compliance periods, generally reiterating the views expressed in earlier comments. Some commenters also pointed out that greater environmental benefits can sometimes be obtained by granting longer compliance periods, which can allow for better designed, more robust, safer and more advanced technologies, and in this instance, could result in greater use of recovery technologies (rather than incineration). Commenters also noted that previous attempts by States to regulate tank vessel loading in less than 3 years resulted in the need for numerous waivers as it became clear that the deadlines could not be met. One commenter provided a list of several marine loading terminals in California that had installed emission control equipment and indicated that almost all of these installation projects took at least 3 years to complete.

The Agency agrees with the commenters that permitting and safety approvals from permitting authorities and the Coast Guard, the dearth of skilled engineering and construction firms, and the history of facilities being unable to comply with existing regulations compels the Agency to extend the date for full compliance with the RACT and MACT rules. In these final standards, EPA allows sources regulated under section 183(f) 3 years to be in full compliance with the emission control requirements promulgated under section 183(f). In addition, RACT sources may request a waiver of up to 1 year to achieve full compliance with the requirements if they can show that the additional period is necessary for the installation of controls. The Agency believes that this result is consistent with section 183(f). Section 183(f) requires the application of "reasonably available" control technology, considering costs, any non-air quality benefits, environmental impacts, energy requirements, and safety factors. The overwhelming evidence received by the Agency indicates that most, if not all, sources that must install emission control devices cannot do so within 2

years. States that have attempted to enforce such a requirement have been forced to provide waivers to the regulated sources. Given the relative scarcity of qualified contractors and the permitting and other requirements necessary for such construction, it is clear that the emission control technologies required by this rule will not be "reasonably available" within 2 years of the promulgation of this rule. Moreover, the information provided to the Agency indicates that a 2-year deadline may force regulated sources to install equipment that is less reliable and that may cause safety concerns. Given the emphasis that Congress put on safety in these regulations and the fact that the Coast Guard will need to review such installations prior to operation, a 2-year deadline seems contrary to Congress' broad intent and may result in conflicts with Coast Guard requirements. The Agency has in the past provided sources with reasonable time to complete actions required by the Clean Air Act. See EPA rulemaking on fuel/fuel additives published on June 27, 1994 (59 FR 33042).

Moreover, EPA believes that the imprecision of the term "effective date" could also provide EPA with the ability to allow compliance after 2 years. The distinction between "effective dates" of regulations and "compliance dates" is important and has been a clear part of administrative procedure for many years. See, e.g., section 112(i)(3); *Natural Resources Defense Council v. Environmental Protection Agency*, 22 F. 3d 1125, 1138 (D.C. Cir. 1994).

The Agency is requiring regulated RACT sources to provide proof that they have commenced construction of vapor collection systems and air pollution control devices within 2 years after promulgation of the final standards. The Agency believes that these actions can reasonably be achieved within 2 years of promulgation.

The Agency believes that most RACT terminals will be able to meet the emissions reduction requirements contained in the final standards within the 3 years following the promulgation date. The Agency estimates that only 8 terminals subject to the RACT requirements are not presently controlling emissions to the level specified in the standards. These terminals are among the largest terminals in the U.S., and can reasonably be expected to have in-house staff capable of assisting in the design and installation of control technology. Furthermore, the Agency is aware that some of these terminals are already designing control equipment in

anticipation of these final RACT requirements.

The EPA shall allow existing sources regulated solely under section 112 four years to be in full compliance with the emission control requirements promulgated under section 112. Sources must generally comply with MACT standards under section 112 within 3 years of promulgation. However, section 112(i) of the Act specifically allows EPA to provide sources with a waiver of up to 1 year to achieve full compliance with the requirements if they can show that the additional period is necessary for installing the controls. Commenters stated that standards containing similar compliance dates for a large number of sources would result in numerous facilities competing for a limited number of experienced contractors in order to meet the standards at the same time. Commenters suggested a staggered compliance schedule for the sources affected by the standards. Commenters also stated that many sources would require more than 3 years to install the required control equipment given the limited number of contractors experienced in installing control equipment in marine loading facilities and the lead time needed to meet permitting and safety requirements from permitting authorities and the U.S. Coast Guard.

The Agency agrees with the commenters that many MACT sources would probably require 1-year waivers if there was a 3-year compliance date for MACT sources in the final rule. The Agency notes that these sources are typically smaller than the sources regulated under RACT, and would not be as likely to have in-house staff capable of assisting in the design and installation of control technology. Therefore, the Agency believes that the sources controlled under section 112 that are not controlled under section 183(f) should automatically receive a waiver of 1 year that will allow a total of four years from September 19, 1995 to comply with the MACT emission reduction requirements. The Agency believes that this total of 4 years is sufficient time for the estimated 20 sources presently uncontrolled to design and install control technologies sufficient to meet the MACT standards. The Agency believes that the staggered compliance schedule (i.e., 3 years for RACT terminals and 4 years for MACT terminals) coupled with the reduced number of terminals required to control emissions under the final rule should alleviate commenters' concerns about the scarcity of qualified installation consultants and vendors. This extended

schedule is also expected to address concerns regarding permitting delays.

The Agency is providing the VMT with 30 months to be in full compliance with these regulations. The Agency believes, per its discussions with APSC, that this extension provides sufficient time to comply with the promulgated rule.

(3) *Addition of new subcategories under the section 112 regulations for offshore terminals and for the Alyeska Pipeline Service Corporation's Valdez Marine Terminal.* In the proposed rule, the Agency established two subcategories based on size for the section 112 MACT regulations. The Agency also solicited comments on whether additional subcategories should be established under the MACT regulations for specific types of terminals based on particular characteristics of those types of terminals of which the Agency had no information at that time. Based on information received in the public comments, the Agency has determined that two additional subcategories exist within the marine tank vessel loading operation source category.

(a) *Subcategory for offshore terminals.* As stated in the solicitation of comments in the proposed rule, the Agency does not believe that a facility at least one-half mile offshore is part of a land-based contiguous site. The Agency also stated that such offshore terminals present unique regulatory challenges such as costs, environmental impacts, and/or size constraints. The Agency requested information regarding the feasibility and costs of controlling emissions from offshore terminals. The Agency also requested comments on whether offshore terminals should be grouped into a separate subcategory and what the control status of terminals in such a subcategory should be. Comments in response to this request indicated that these types of vessel loading operations face significant challenges in controlling emissions that were different from land-based, contiguous loading operations. These challenges include high costs, technical complications, and permitting requirements that would result from requirements to construct new platforms to locate control equipment adjacent to the offshore terminal or additional subsea or surface lines to route loading vapors to onshore control equipment. Commenters noted that these challenges are either non-existent or not as pronounced for onshore, contiguous terminals. The Agency has therefore determined that a subcategory for these types of terminals is justified and has based its definition for offshore

terminals on a minimum distance of one-half mile from the terminal's furthest loading point to the shore, regardless of the existence of subsea lines. (See the discussion in section 2.3.2 of the TSD for the rationale supporting the one-half mile limit).

Once the Agency determined that offshore terminals should be placed in a subcategory for the MACT standards, the MACT floor was determined (see Docket A-90-44, Item Number IV-B-2). Based on information received from commenters, (see Docket A-90-44, Item Number IV-D-136) the Agency estimates that there are fewer than 20 offshore terminals having subsea lines. None of these terminals presently control emissions from marine tank vessel loading. The Agency is also aware of additional offshore terminals that do not have subsea lines. Two of these terminals are known to presently control emissions (see Docket A-90-44, Item Number IV-D-80). Based on the information available to the Agency, the MACT floor for this subcategory is no control of HAP emissions (see MACT floor memorandum in Docket A-90-44, Item Number IV-B-2). Data submitted by commenters showed that the costs associated with the control of offshore terminals are between two and five times more expensive than comparable onshore control techniques (see Docket A-90-44, Item numbers IV-D-108 and IV-D-136). Because of the poor cost effectiveness resulting from these significantly higher costs, as well as the environmental, safety, and technical challenges associated with requiring control more efficient than the MACT floor, the Agency has selected the MACT floor level of no control for offshore marine tank vessel loading operations.

The Agency also determined that offshore terminals loading 10 million barrels or more per year of gasoline or 200 million barrels or more of crude oil should not be required to control VOC or HAP emissions under section 183(f) RACT requirements. Although one commenter (see Docket A-90-44, Item Number IV-D-80) noted two controlled offshore terminals, no information was submitted regarding the specific control techniques used at these two terminals. Since most of the other comments noted that the significantly higher costs and poor cost effectiveness shown by these sources (see previous paragraph) would make control requirements unreasonable for these offshore terminals, the Agency determined that requirement for controls at offshore RACT terminals would not be consistent with the requirements for the technology to be "reasonable."

(b) *Subcategory for Alyeska Pipeline Service Company's Valdez Marine Terminal.* In the proposed rule, the Agency solicited comment on the possibility of placing the VMT in a separate subcategory. Comments from APSC and several other commenters representing State and local governments, industry, private citizens, and environmental groups were considered by the Agency in developing this final rule.

The Agency has determined that the VMT should be placed in a separate subcategory for the following reasons: (1) The VMT is the largest (by a significant amount) crude oil loading operation in the U.S.; (2) special circumstances, including climatic and economic conditions, require keeping the oil moving through the pipeline; (3) severe meteorological conditions result in increased loading irregularity; (4) the VMT throughput projections show declining throughput over the next several years. Several comments from environmental groups, State and local agencies, and private citizens in the Valdez area did not object to placing VMT in a separate subcategory provided that emissions were controlled. Based on all of these factors, the Agency determined that APSC's VMT should be placed in a separate subcategory.

Once the subcategory for VMT was established, the Agency determined the MACT floor for the subcategory (see Docket A-90-44, Item Number IV-B-2). The VMT presently does not control emissions, therefore the MACT floor is no control. However, the Agency noted that in all of the comments received concerning the establishment of this subcategory, the cost effectiveness associated with requiring controls more stringent than the MACT floor is not prohibitive. The annual emissions reductions anticipated from controlling VMT are expected to be approximately 19,000 Mg (20,900 tons) of VOC and approximately 2,500 Mg (2,750 tons) of HAP. The annual costs anticipated with today's regulation of VMT are expected to be \$20 million. The resulting cost effectiveness is approximately \$1,050 per megagram based on VOC or approximately \$8,000 per megagram based on HAP. The Agency therefore selected a strategy for both MACT and RACT standards for VMT that requires a reduction in emissions by 98 percent efficiency of all throughput loaded from at least two of the terminal's loading berths. Maximum limits for total throughput and throughput at uncontrolled berths (above which all VMT loading berths would be required to reduce emissions by 98 percent) are included as part of these standards.

These throughput limits address the projected decreasing throughput that would necessitate the use of only two berths for routine loading after 2001. Provisions to allow for scheduled maintenance of the controlled berths are also established in the VMT standards.

Some commenters initially noted that the cost of controlling VOC may be high relative to the benefits of controlling VOC at a remote site in an Arctic ozone attainment area. Additionally, some commenters initially stated that the benefits of controlling HAP would not appear to justify the costs. However, the Agency has also considered later comments from the APSC, the State of Alaska, the Prince William Sound Regional Citizens Advisory Committee (a local citizens group) and private citizens in determining MACT/RACT for the VMT. These commenters agreed that a Federal rule mandating control of primary emissions at the APSC was acceptable. After careful consideration of the costs, the environmental impacts and the comments, the Agency decided that MACT for this subcategory was control beyond the level of the MACT floor (see Docket A-44-90, Item Number IV-B-2).

(4) *Expansion of the petroleum refineries source category to include marine tank vessel loading operations collocated at petroleum refinery operations.* The preamble to the proposed petroleum refinery NESHAP published in the Federal Register on July 15, 1994 (59 FR 36130) requested comments on whether marine tank vessel loading operations at refineries should be included in emissions averaging. On August 31, 1994, the EPA also reopened the comment period for the proposed NESHAP for Marine Tank Vessel Loading Operations (59 FR 44955) to request comment on whether marine terminals collocated at refineries should be moved to the petroleum refinery source category. During the comment period for the gasoline distribution NESHAP, commenters requested that bulk gasoline terminals contiguous to a refinery be regulated by the petroleum refinery NESHAP.

Several commenters responding to the marine tank vessel loading operations proposed NESHAP supported averaging of refinery process unit emissions with emissions from marine terminals and gasoline distribution operations that are located at refineries. The commenters cited more cost effective emission reduction as the advantage of including these emission points in emissions averaging and specifically commented that the costs per Mg emission reduction of the marine tank vessel loading emission controls are high. These

commenters also claimed that emission calculation procedures for loading are well established and that adding marine loading to the averaging provisions will not appreciably increase the complexity of enforcement. Other commenters opposed including marine tank vessel loading and gasoline distribution in emissions averaging. Some commenters claimed that these are separate source categories, and the Act does not permit averaging across source categories. Others were concerned that including marine loading in averages could result in uncontrolled peak emissions.

In the final rules, emissions from marine tank vessel loading operations, bulk gasoline terminal or pipeline breakout station storage vessels, and bulk gasoline terminal loading racks at petroleum refineries are allowed to be included in emissions averages. The petroleum refinery source category and source definitions have been changed to include marine tank vessel loading operations, bulk gasoline terminal and pipeline breakout station storage vessels, equipment leaks, and bulk gasoline terminal loading racks classified under SIC codes 5171 (Petroleum Bulk Stations and Terminals) and 4613 (Refined Petroleum Pipelines) that are located at refinery plant sites. Note that these operations are closely connected with refinery process unit operations since they transfer products of the refinery process units.

A marine tank vessel loading operation or gasoline terminal or pipeline breakout station that is collocated at a petroleum refinery can be considered part of the same source as the refinery subject to this rule. Because these operations are redefined to be part of the source subject to the rule, the prohibition against intersource averaging is not violated. However, all terminals subject to section 183(f), regardless of location will not be allowed to average emissions with petroleum refinery sources.

In keeping with EPA's stated goal of increasing flexibility in rulemakings, this decision has been made to provide more opportunities to average. This decision optimizes the opportunities for refiners to find cost-effective emission reductions from overall facility operations on-site. Costs and cost effectiveness of controlling a particular kind of emission point, such as marine tank vessel loading, will vary depending on many site-specific factors. Emissions averaging allows the owner and operator to find the optimal control strategy for their particular situation.

Including emissions from marine tank vessel loading operations, bulk gasoline

terminal or pipeline breakout station storage vessels, and bulk gasoline terminal loading racks in emissions averages will result in equivalent or greater overall HAP emission reduction at each refinery. The averaging provisions are structured such that "debits" generated by not controlling an emission point that otherwise would require control must be balanced by achieving extra control at other refinery emission points covered by the NESHAP.

With regard to commenter's concerns about peak emissions, the quarterly cap on the ratio of debits to credits is intended to limit the possibility of exposure peaks. Furthermore, because loading operations occur fairly frequently and emissions from an individual vessel filling or loading event are relatively small, such emissions are not expected to cause significant exposure peaks. Moreover, no evidence has been presented that emissions averaging would permit a very different mix of emissions to occur than would point-by-point compliance. That is, peaks of exposures from batch streams, storage, and loading operations should be equally likely under point-by-point compliance as under emissions averaging; therefore, emissions averaging does not represent a less effective control strategy. Furthermore, in order to receive approval for an emissions average, the owner or operator is required to demonstrate that the emissions average does not increase the risk or hazard relative to compliance without averaging.

(5) *Revision to the subcategories established based on annual HAP emissions from 1 ton per year to 10 tons per year of any single HAP or 25 tons per year of total HAP.* The proposed standards grouped major source terminals into two subcategories based on HAP emissions: Terminals with HAP emissions of 1 ton per year or more and terminals having HAP emissions of less than 1 ton per year. In the preamble of the proposed rule, the Agency requested comment on establishing these subcategories based on size (i.e., HAP emissions). In the public comments, the Agency found general, though not universal, agreement on establishing subcategories based on size for this source category. However, some of the comments encouraged the Agency to raise the HAP emissions level of the controlled subcategory. The final standards continue to group major source terminals into subcategories based on HAP emissions; however, these subcategories were changed to terminals with emissions of 10 tons per year or more of any single HAP or 25

tons per year or more of total HAP and terminals having HAP emissions of less than 10 tons per year of all single HAP or less than 25 tons per year of total HAP. The Agency based this decision on information found in the comments received. Commenters noted that prior state regulations generally (though not invariably) distinguished between large tank vessel loading facilities that are responsible for the vast majority of emissions and small tank vessel loading facilities that are substantially less cost effective to regulate. (As discussed below, the incremental cost effectiveness of moving from the 10/25 ton per year distinction to the 1-ton delineation is between \$80,000 and \$112,000 per megagram, while the cost effectiveness of the 10/25 ton delineation is between \$14,500 and \$24,000 per megagram.)

Though section 112 does not provide any language indicating the criteria for subcategorization, section 112(d)(1) of the Act states that EPA may distinguish among classes, types, and sizes of sources in establishing standards. EPA believes that division of this source category into two subcategories based on size is appropriate in this instance. (See section 2.3.1 of the promulgation TSD for additional discussion of the subcategories based on size.)

(6) *Incorporation of minimum vapor pressure limit.* The Agency received several comments regarding HAP having low vapor pressures. Most of these commenters stated that these low vapor pressure HAPs are not presently controlled under existing State regulations and that the control of these low vapor pressure compounds presents technical challenges and imposes significantly greater costs to the affected industry. The proposed rule enabled individual facilities to determine which products to control to achieve the 93 percent mass limit. Therefore, facilities would not have had to control low vapor pressure liquids under the proposed rule if higher vapor pressure liquids were available for control. Based on the comments received, the Agency altered the format of the MACT standards to explicitly exempt low vapor pressure liquids consistent with State requirements and recalculated the control requirement for liquids above the vapor pressure limit. Therefore, the MACT floor for existing sources is no control for liquids having a vapor pressure below 1.5 psia and 97 percent control for liquids having a vapor pressure 1.5 psia or greater. Because no low vapor pressure liquids are required to be controlled at any of the known existing sources, the MACT floor for new sources is also no control for

liquids having a vapor pressure below 1.5 psia and 98 percent control for liquids having a vapor pressure 1.5 psia or greater. The format of the standard was changed to an efficiency format to reflect the new approach.

The issue of cost effectiveness to control emission streams from the loading of these low vapor pressure materials was also a realistic concern of the commenters. As the MACT floor for regulation of such activities is no control, EPA has discretion, based on section 112(d)'s criteria used for going beyond the floor, to institute a vapor pressure limit. Because of the high costs cited by commenters, the Agency elected not to require controls more stringent than the MACT floor for these low vapor pressure HAP. The Agency therefore selected a vapor pressure limit of 1.5 psia for determining the HAP emissions reduction for the final standards. Control of HAP having vapor pressures below this limit is not required to meet the standards.

(7) *Recalculation of the MACT floors.* The MACT floors determined for this final rulemaking are different than those in the proposed rule. These final rule MACT floors reflect changes in the Agency's regulation of marine tank vessel loading including: (1) The establishment of subcategories for offshore terminals and the VMT terminal; (2) the incorporation of a 1.5 psia minimum vapor pressure limit instead of the weighted average as was proposed; and (3) the increase of the levels of the subcategories based on size (i.e., HAP emissions) from 1 ton per year to 10/25 tons per year. The MACT floors for the final rule also reflect comments on the proposed rule. However, the Agency has not changed the way in which the MACT floors for the final rule have been calculated. With the exception of the MACT floor for VMT, the MACT floors for existing and new sources in the marine tank vessel loading source category are shown in Table 1.

Using the criteria established in section 112(d)(3) of the Act, and after inclusion of information supplied in the public comments, the MACT floors for existing source marine terminal subcategories subject to regulation under Title III of the Clean Air Act were determined. Additional information on the determination of these MACT floors is in the docket (Docket Number A-90-44, Item Number IV-A-2). There are approximately 44 major source terminals (not including the VMT) that emit 10 tons per year or more of any one hazardous air pollutant (HAP) or 25 tons per year or more of any combination of HAP. Twenty-three of these terminals

are controlled. The resulting MACT floor level of control is a 97 percent reduction of HAP emissions. There are approximately 1,435 terminals that emit less than 10 tons per year of all individual HAP and less than 25 tons per year of combined HAP. Seventy-nine of these terminals reduce emissions from marine tank vessel loading. The resulting MACT floor level of control is no reduction in HAP emissions. The Agency estimated that there are less than 30 offshore terminals (i.e., loading terminals located 0.5 miles or more from shore). The Agency is aware of only 2 controlled offshore terminals. Therefore the resulting MACT floor level of control is no reduction in HAP emissions. The VMT is presently uncontrolled. Since this is the only terminal in the VMT source category, the MACT floor level of control is no control.

The MACT floors for new source marine terminal subcategories subject to regulation under Title III of the Act were also calculated following the criteria in section 112(d)(3) of the Act. For new major source onshore terminals (not including the VMT) regardless of the marine tank vessel loading HAP emissions, the best performing source achieves a 98 percent reduction of controlled emissions. Therefore, the resulting MACT floor for these sources is 98 percent reduction of HAP emissions. For new major source offshore terminals whose marine tank vessel loading HAP emissions exceed the limits for a major source (i.e., 10 tons of any one HAP, or 25 tons of total HAP), the best controlled similar source achieves a 95 percent reduction of controlled emissions. The resulting MACT floor for new offshore major sources is therefore a 95 percent reduction in HAP emissions. Since the VMT subcategory only contains a single source, and it is not possible for an additional source to be added to this subcategory, no new source MACT floor was calculated for the VMT subcategory.

(8) *Incorporation of additional flexibility to the monitoring requirements and compliance provisions.* The proposed rule required parametric monitoring or continuous emissions monitoring (CEM) as a means of showing compliance with the standards. Any exceedance of the parameters or concentration limits established during a performance test would have resulted in a violation of the standard. Comments indicated that this approach was too severe and warranted additional flexibility. Although the Agency continues to believe that parametric monitoring can be used to determine compliance given availability

of sufficient test data to establish the relationship between control performance and associated parameters, in consideration of the lack of test data establishing the relationship between marine tank vessel loading emissions control efficiency and parametric monitoring and because of the batch nature of marine tank vessel loading operations, the Agency has thoroughly revised the monitoring requirements and compliance provisions of the final rule. A requirement for an operation and maintenance (O & M) plan has been added to the final regulation to ensure proper operation of the air pollution control and monitoring equipment. The O & M plan contains an inspection schedule for each component of the control and monitoring equipment. The "compliance" language that appeared in § 63.563 of the proposed rule has been removed. In its place, the final rule contains provisions that require an unscheduled inspection and corrective actions when operating parameters exceed the applicable baseline parameters.

Flexibility has also been added to the methods for determining baseline parameters. Owners or operators of a source required to reduce emissions may establish baseline parameters during a performance test or may choose to set the applicable baseline based on a manufacturer's recommended baseline operating parameter.

Commenters on the proposed rule also requested that additional operating parameters be added to the regulation and that sources be allowed to apply for alternatives to the Administrator. Additional operating parameters have been added to the final regulation for several control devices. A cross reference to the general provisions found in 40 CFR part 63 (containing requirements for establishing alternative monitoring procedures) has been provided to assist sources seeking approval of alternative monitoring procedures. Commenters also requested that time intervals of the monitoring requirements be made consistent for each of the operating parameters. In the final rule, sources are required to monitor and record data points every 15 minutes for each operating parameter.

D. Minor Changes

(1) Revisions to definitions and phrasing have been made to clarify the regulation.

(2) Based on comments received and on changes to the monitoring and compliance provision requirements, the reporting requirements have been changed. Under today's final rule, the Agency is requiring the following one-

time reports as specified in the general provisions found in 40 CFR part 63, subpart A: report of startup, construction or modification; notification and report of emissions tests and results and/or initial notification of compliance status; notification and report of physical/operational changes; notification and report of waiver applications; and an engineering report describing the vent system used to vent each vent stream to a control device.

The final rule also requires owners or operators to submit yearly summary reports and yearly reports of excess emissions and monitoring system performance reports. However, in order to provide relief from the reporting requirements to well-controlled sources while assuring compliance with the standards, the Agency has provided that sources whose exceedances have durations that total less than 5 percent of the total reporting time for that reporting period and whose CMS downtime for the reporting period is less than 10 percent of the total operating time for that reporting period may submit only the summary report found in 40 CFR part 63 subpart A instead of both the summary report and the full excess emissions and continuous monitoring system performance report found in § 63.567(d)(2).

The final rule does not require quarterly reports of excess emissions or monitoring parameter exceedances. The Agency agreed with commenters that quarterly reporting did not add sufficient compliance assurance to warrant the high costs associated with the quarterly reporting. Quarterly reporting also did not agree with the revised monitoring and compliance determination requirements found in the final rule (see section 3(c)(5) of this preamble and section 2.6 of the promulgation TSD for additional discussion of the revised monitoring requirements contained in the final rule).

(3) Several commenters requested clarification of the general provisions found in 40 CFR part 63 as they relate to this rule. A table identifying the relationship of the final General Provisions requirements has been added to the final regulation. Language similar to that in the General Provisions has been added to subpart Y in cases where a direct reference to the General Provisions was not appropriate.

(4) References to the proposed Performance Specifications 101 and 102 have been updated to incorporate the Agency's promulgation of Performance Specifications 8 and 9.

E. Other Significant Issues

(1) Regulation Under Sections 183(f) and 112

The EPA proposed to regulate tank vessel loading operations under both sections 183(f) and 112 of the Act. Some commenters suggested that regulation under section 112 was inappropriate because section 183(f) specifically provides for regulation of tank vessel loading operations, whereas section 112 is a more general standard. On the other hand, one commenter believed that regulation was more appropriate, at least for certain facilities, under section 112.

The Agency believes that the best interpretation of the Clean Air Act requires that standards be issued under both sections 183(f) and 112. The language of section 112 of the Act is clear. "[T]he Administrator shall publish * * * a list of all categories and subcategories of major sources and area sources of [HAP]." Clean Air Act section 112(c)(1), 42 U.S.C. § 7412(c)(1) [emphasis added]. Further, 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)." Clean Air Act section 112(d)(1), 42 U.S.C. § 7412(d)(1). The marine tank vessel loading operations source category is clearly a category of major sources, as defined in the Act. The Act is thus clear on its face that this source category should be regulated under section 112.

The fact that two separate sections of the Act regulate the same source category does not necessitate that one of the sections should be ignored. In fact, unless the regulations promulgated under one section would create an inescapable conflict with regulations promulgated under the other section, both must be followed. The regulations promulgated under section 112 are not in conflict with those promulgated under section 183(f). EPA believes that any source regulated under both sections would have no problem meeting the requirements of both standards at the same time.

Congress often provides for regulation of sources under two separate sections. The legislative history indicates that Congress was well aware that sources could be subject to dual regulation under section 112 and other sections of the Act. See page 167 of the Senate Committee Report (Report 101-228). In addition, where Congress wanted one section of the Clean Air Act to be exclusive of further regulation under

section 112(d), they said so explicitly; see sections 129(h)(2), 112(d)(9). Thus, Congress could have added specific language to section 183(f) preventing the Agency from regulating this source category under section 112; however, it did not do so.

In addition, neither the statute nor the legislative history indicates that Congress intended EPA regulations under section 183(f) to be the exclusive regulation of these sources. In fact, section 183(f) explicitly provides that states may regulate tank vessel loading processes and, in fact, requires that any such regulations be as stringent or more stringent than the Agency's regulations under section 183(f).

IV. Administrative Requirements

A. Docket

The Docket is an organized and complete file of all the information considered by the EPA in the development of this rulemaking. The Docket is a dynamic file, since material is added throughout the rulemaking development. The docketing system allows members of the public and industries to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the statement of basis and purpose of the proposed and promulgated standards and the EPA responses to significant comments, the contents of the Docket will serve as the record in case of judicial review [section 307(d)(7)(A)].

B. Paperwork Reduction Act

The information collection requirements in this rule have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, and have been assigned OMB control number (2060-0289). An Information Collection Request (ICR) document has been prepared by the EPA (ICR No. 1679.02) to reflect the changed information requirements of the final rule.

This collection of information has an estimated burden per affected facility of about 685 hours for the first year. In subsequent years, the burden is approximately 280 hours per affected facility. These burden estimates include time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to

Director, Regulatory Information Division, EPA, 401 M St., S.W. (Mail Code 2136), Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, marked "Attention: Desk Officer for EPA."

C. Administrative Designation and Regulatory Analysis

Under Executive Order 12866 [58 FR 51735 (October 4, 1993)], the EPA is required to judge whether a regulation is "significant" and therefore subject to Office of Management and Budget (OMB) review and the requirements of this Executive Order to prepare a regulatory impact analysis (RIA). The 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 from 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 this rule is a "significant regulatory action" because it will have an annual effect on the economy of \$100 million or more. As such, this action was submitted to OMB for review. Changes made in response to OMB suggestions or recommendations are documented in the public record (see Docket A-90-44, Item Number IV-H-2).

D. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires the EPA to consider potential impacts of proposed regulations on small business "entities," which are small businesses, small organizations, and small governments. It is EPA's current policy to perform a regulatory flexibility analysis whenever a regulation is anticipated to adversely affect any small entities. An economic impact and regulatory flexibility analysis for this regulation was performed and included within the regulatory impact analysis that has been submitted to the public docket (Docket

Number A-90-44, Item Number IV-A-2).

The regulatory flexibility analysis identified two types of businesses that could incur adverse economic impacts from this standard, marine terminal operations and marine vessel operations. With regard to marine terminal operations, only the very largest terminal operations are expected to be affected by this standard. The decision not to require controls at existing smaller operations greatly reduces the potential for adverse economic impacts on small terminal operations. Nevertheless, some of the smaller terminal operations that will be affected by this regulation could be put under increased competitive pressure as a result of this rule. Of these terminals, however, it is expected that few or none are independently owned. The rest are part of large integrated petroleum operations. The number of small business terminal operations affected by this regulation is expected to be minimal.

With regard to marine vessel operations, the economic impact analysis considered the majority of these operations to be small businesses. However, the number of vessel operations significantly impacted from the proposed standard is not expected to be substantial. Only a relatively small percentage of U.S. marine transported throughput will be impacted by the standard. Excluding crude oil volume shipped by large tankers from the VMT, no more than one-third of the remaining U.S. marine transported throughput is expected to be impacted by the standard. It is expected that an even smaller percentage of U.S. vessels will need to be retrofitted to accommodate the volume of affected products. Only the largest and newest vessels (i.e., those that will cost least to retrofit) will therefore need to be retrofitted. Moreover, it is expected that vessel owners will be able to pass forward most retrofit costs in the form of higher prices. Vessels that cannot retrofit cost effectively and that cannot pass through costs can be dedicated to transporting unregulated products.

Economic Impacts

The EPA performed an economic impact analysis of the regulatory requirements in this regulation. Potential price, output, and employment impacts for affected products and for the marine transport industry were examined. Detailed results from the analysis are included in the regulatory impact analysis for this rule that has been submitted to the public docket.

Estimated maximum price increases for the affected products varied but were not large (less than 1%). These price-cost estimates reflect the control cost increases for transporting crude and products. Because these increases are small and because the elasticities of demand for petroleum products are small, estimated percent output reductions were minimal. Correspondingly, estimated employment reductions were also relatively small.

Potentially significant economic impacts on some of the smaller affected terminal operations were identified, although the decision not to require emission controls for existing smaller operations greatly reduces the potential for adverse impacts on small terminal operations. These potential impacts would result from the high per barrel control cost differential between the smaller and larger terminal operations that would need to control emissions. Some of these smaller terminal operations, to the extent that they are competing with nearby larger or unaffected terminal operations, could have had difficulty raising prices sufficiently to cover cost increases and could have been significantly and adversely impacted by this rule if the rule were applicable to such operations.

The potential economic impact on marine vessel owners was substantially reduced because of the decision not to require emission controls for small terminals in this rulemaking. Because only a relatively small percentage of U.S. marine transported volume of products will be impacted by the standard, only a relatively small percentage of U.S. marine vessels will need to retrofit. Thus only the vessels that will cost least to retrofit (most likely the larger, newer, double-skin vessels) will do so, leading to some degree of dedicated service. Vessel owners that do retrofit probably will be able to pass most retrofit costs forward in terms of higher prices.

E. Unfunded Mandates Act

Under section 202 of the Unfunded Mandates Reform Act of 1995 (Unfunded Mandates Act), signed into law on March 22, 1995, the EPA must prepare a budgetary impact statement to accompany any proposed or final rule that includes a Federal mandate that may result in estimated costs to State, local, or tribal governments in the aggregate; or to the private sector of \$100 million or more. The budgetary impact statement must include: (1) An identification of the Federal law under which the rule is promulgated; (2) a qualitative and quantitative assessment

of anticipated costs and benefits of the Federal mandate and an analysis of the extent to which such costs to State, local, and tribal governments may be paid with Federal financial assistance; (3) if feasible, estimates of the future compliance costs and any disproportionate budgetary effects of the mandate; (4) if feasible, estimates of the effect on the national economy; and (5) a description of the Agency's prior consultation with elected representatives of State, local, and tribal governments and a summary and evaluation of the comments and concerns presented. Section 203 provides that if any small governments may be significantly or uniquely impacted by the rule, the Agency must establish a plan for obtaining input from and informing, educating, and advising any such potentially affected small governments.

Under section 205 of the Unfunded Mandates Act, the Agency must identify and consider a reasonable number of regulatory alternatives before promulgating a rule for which a budgetary impact statement must be prepared. The Agency must select from those alternatives the least costly, most cost-effective, or least burdensome alternative for State, local, and tribal governments and the private sector, that achieves the objectives of the rule, unless the Agency explains why this alternative is not selected or unless the selection of this alternative is inconsistent with law.

Because this final rule is estimated to result in the expenditure by State, local, and tribal governments in aggregate or by the private sector of \$60 million to \$100 million per year starting in 2000, EPA has prepared a supplement to the Regulatory Impact Analysis (RIA) in compliance with the Unfunded Mandates Act. The EPA summarizes that supplement as follows:

This final rule is promulgated under section 112 and section 183(f) of the Clean Air Act. The analysis in the RIA developed in preparation of the proposed rule and revised in preparation of the final rule contains the information to be considered in response to the requirements of the Unfunded Mandates Act.

Total expenditures resulting from the final rule are estimated at between \$60 million and \$100 million (of which less than \$75,000 is by State, local, and tribal governments) per year in 1997-2000; and \$550,000 (of which \$38,000 is by State, local, and tribal governments) per year starting in 2001. There are no federal funds available to assist State, local, and tribal governments in meeting these costs. There are important benefits

from VOC and HAP emission reductions because these compounds have significant, adverse impacts on human health and welfare and on the environment. The rule does not have any disproportionate budgetary effects on any particular region of the nation, any State, local, or tribal government, or urban or rural or other type of community. On the contrary, the rule will result in only a minimal increase in the average product rates (less than 1 percent). Moreover, the rule will not have a material effect on the national economy.

Prior to issuing this rule, the EPA provided numerous opportunities (e.g., National Air Pollution Control Techniques Advisory Committee proceedings; public comment period; public hearing; meetings with industry, trade associations, state and local air pollution representatives; State, local, and tribal governments; and concerned citizens) for consultation with interested parties. In general, State and local environmental agencies advocated that EPA adopt more stringent environmental controls. The Agency evaluated the comments and concerns expressed, and the final rule reflects, to the extent consistent with sections 112 and 183(f) of the Act, those comments and concerns. While small governments are not significantly or uniquely affected by the rule, these procedures, as well as additional public conferences and meetings, gave small governments an opportunity to give meaningful and timely input and obtain information, education, and advice on compliance.

The Agency considered several regulatory options in developing the rule. As discussed above, the Agency has found that regulation solely under section 183(f) of the Act would not be consistent with the law. The options selected in the final rule for all subcategories of sources except the VMT subcategory are the least costly and least burdensome alternatives currently available for achieving the objectives of sections 112 and 183(f) of the Act. Regarding regulation of the VMT, the Agency notes that the cost effectiveness of controlling VOC at this terminal is approximately \$1,050 per Mg and the cost effectiveness of controlling HAP is approximately \$8,000 per Mg. The Agency initially received comments stating that the cost of controlling VOC at this terminal is high relative to the benefits of controlling VOC at a remote site in an Arctic ozone attainment area. Additionally, some commenters initially stated that the benefits of controlling HAP would not appear to justify the costs. However, the Agency has also considered later comments from the

APSC, the State of Alaska, the Prince William Sound Regional Citizens Advisory Committee (a local citizens group) and private citizens in determining MACT/RACT for the VMT. These commenters agreed that a Federal rule mandating control of the primary emissions at the APSC was acceptable. After careful consideration of the costs, the environmental impacts and the comments, the Agency decided that MACT for this subcategory was control beyond the level of the MACT floor (see Docket A-44-90; Item Number IV-B-2).

List of Subjects in 40 CFR Parts 9 and 63

Environmental protection, Air pollution control, Intergovernmental relations, Reporting and recordkeeping requirements, Tank vessel standards.

Dated: July 28, 1995.

Carol M. Browner,
Administrator.

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

PART 9—[AMENDED]

1. The authority citation for part 9 continues to read as follows:

Authority: 7 U.S.C. 135 *et seq.*, 135-136y; 15 U.S.C. 2001, 2003, 2005, 2006, 2601-2671; 21 U.S.C. 331j, 346a, 348; 31 U.S.C. 9701; 33 U.S.C. 1251 *et seq.*, 1311, 1313d, 1314, 1321, 1326, 1330, 1344, 1345(d) and (e), 1361; E.O. 11735, 38 FR 21243, 3 CFR, 1971-1975 Comp. p. 973; 42 U.S.C. 241, 242b, 243, 246, 300f, 300g, 300g-1, 300g-2, 300g-3, 300g-4, 300g-5, 300g-6, 300j-1, 300j-2, 300j-3, 300j-4, 300j-9, 1857 *et seq.*, 6901-6992k, 7401-7671q, 7542, 9601-9657, 11023, 11048.

2. Section 9.1 is amended by adding a new entry to the table under the indicated heading in numerical order to read as follows:

§ 9.1 OMB approvals under the Paperwork Reduction Act.

* * * * *

40 CFR citation

OMB control No.

National Emissions Standards for Hazardous Air Pollutants for Source Categories.

63.563-63.567

2060-0289

PART 63—[AMENDED]

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

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

2. By adding a new subpart Y consisting of §§ 63.560 through 63.567 to read as follows:

Subpart Y—National Emission Standards for Marine Tank Vessel Loading Operations

- Sec.
- 63.560 Applicability and designation of affected source.
- 63.561 Definitions.
- 63.562 Standards.
- 63.563 Compliance and performance testing.
- 63.564 Monitoring requirements.
- 63.565 Test methods and procedures.
- 63.566 Construction and reconstruction.
- 63.567 Recordkeeping and reporting requirements.

Subpart Y—National Emission Standards for Marine Tank Vessel Tank Loading Operations

§ 63.560 Applicability and designation of affected source.

(a) *Maximum achievable control technology (MACT) standards.*

(1) The provisions of this subpart pertaining to the MACT standards in § 63.562(b) and (d) of this subpart are applicable to existing and new sources with emissions of 10 or 25 tons, as that term is defined in § 63.561, except as specified in paragraph (d) of this

section, and are applicable to new sources with emissions less than 10 and 25 tons, as that term is defined in § 63.561, except as specified in paragraph (d) of this section.

(2) Existing sources with emissions less than 10 and 25 tons are not subject to the emissions standards in § 63.562(b) and (d).

(3) The recordkeeping requirements of § 63.567(j)(4) and the emission estimation requirements of § 63.565(l) apply to existing sources with emissions less than 10 and 25 tons.

(b) *Reasonably available control technology (RACT) standards.*

(1) The provisions of this subpart pertaining to RACT standards in § 63.562(c) and (d) of this subpart are applicable to sources with throughput of 10 M barrels or 200 M barrels, as that term is defined in § 63.561, except as specified in paragraph (d) of this section.

(2) Sources with throughput less than 10 M barrels and 200 M barrels, as that term is defined in § 63.561, are not subject to the emissions standards in § 63.562(c) and (d).

(c) *General Provisions applicability.* Owners or operators of affected sources, as that term is defined in § 63.561, of this subpart must comply with the requirements of subpart A of this part in accordance with the provisions for applicability of subpart A to this subpart in Table 1 of this section.

(d) *Exemptions from MACT and RACT standards.*

(1) This subpart does not apply to emissions resulting from marine tank vessel loading operations, as that term is defined in § 63.561, of commodities with vapor pressures less than 10.3 kilopascals (kPa) (1.5 pounds per square inch, absolute) (psia) at standard conditions, 20°C and 760 millimeters Hg (mm Hg).

(2) The provisions of this subpart pertaining to the MACT standards in § 63.562(b)(2), (3) and (4) and to the RACT standards in § 63.562(c)(3) and (4) do not apply to marine tank vessel loading operations where emissions are reduced by using a vapor balancing system, as that term is defined in § 63.561. The provisions pertaining to the vapor collection system, ship-to-shore compatibility, and vapor tightness of marine tank vessels in § 63.562(b)(1), and (c)(2) do apply.

(3) The provisions of this subpart pertaining to the MACT standards in § 63.562(b)(2), (3), and (4) do not apply to marine tank vessel loading operations that are contiguous with refinery operations at sources subject to and complying with subpart CC of this part, National Emissions Standards for Organic Hazardous Air Pollutants from Petroleum Refineries, except to the extent that any such provisions of this subpart are made applicable by subpart CC of this part.

(4) The provisions of this subpart pertaining to the MACT standards in § 63.562(b) and (d) do not apply to benzene emissions from marine tank vessel loading operations that are subject to and complying with 40 CFR part 61, subpart BB, National Emissions Standards for Benzene Emissions from Benzene Transfer Operations, except that benzene emissions or other HAP emissions (i.e., nonbenzene HAP emissions) from marine tank vessel loading operations that are not subject to subpart BB are subject to the provisions of this subpart.

(5) The provisions of this subpart pertaining to the MACT standards in § 63.562(b) and (d) do not apply to marine tank vessel loading operations at loading berths that only transfer liquids containing organic HAP as impurities, as that term is defined in § 63.561.

(6) The provisions of this subpart do not apply to marine tank vessel loading operations at existing offshore loading terminals, as that term is defined in § 63.561.

(7) The provisions of this subpart do not apply to ballasting operations, as that term is defined in § 63.561.

(e) *Compliance dates.*

(1) *MACT standards compliance dates, except the Valdez Marine Terminal (VMT) source.*

(i) A new or existing source with emissions of 10 or 25 tons, except the VMT source, and a new source with

emissions less than 10 and 25 tons, except the VMT source, that has an initial startup date on or before September 20, 1999 shall comply with the provisions of this subpart pertaining to the MACT standards in § 63.562(b) no later than 4 years after the effective date.

(ii) A new source with emissions of 10 or 25 tons, except the VMT source, and a new source with emissions less than 10 and 25 tons, except the VMT source, that has an initial startup date after September 20, 1999 shall comply with provisions of this subpart pertaining to the MACT standards in § 63.562(b) immediately upon startup.

(iii) A source with emissions less than 10 and 25 tons that increases its emissions subsequent to September 20, 1999 such that it becomes a source with emissions of 10 or 25 tons shall comply with the provisions of this subpart pertaining to the MACT standards in § 63.562(b) within 3 years following the exceedance of the threshold level.

(2) *RACT standards compliance dates, except the VMT source.*

(i) A source with throughput of 10 M barrels or 200 M barrels, except the VMT source, with an initial startup date on or before September 21, 1998 shall comply with § 63.562(c)(1) no later than 2 years after the effective date.

(ii) A source with throughput of 10 M barrels or 200 M barrels, except the VMT source, with an initial startup date on or before September 21, 1998 shall

comply with the provisions of this subpart pertaining to the RACT standards in § 63.562(c) other than § 63.562(c)(1), no later than 3 years after the effective date.

(iii) A source with throughput of 10 M barrels or 200 M barrels, except the VMT source, with an initial startup date after September 21, 1998 shall comply with the provisions of this subpart pertaining to the RACT standards in § 63.562(c) immediately upon startup.

(iv) A source with throughput less than 10 M barrels and 200 M barrels that increases its throughput subsequent to September 21, 1998 such that it becomes a source with throughput of 10 M barrels or 200 M barrels shall comply with the provisions of this subpart pertaining to the RACT standards in § 63.562(c) within 3 years following the exceedance of the threshold levels.

(v) A source with throughput of 10 M barrels or 200 M barrels may apply for approval from the Administrator for an extension of the compliance date of up to 1 year if it can demonstrate that the additional time is necessary for installation of the control device.

(3) *MACT and RACT compliance dates for the VMT source.*

The VMT source, as that term is defined in § 63.561, shall comply with the provisions of this subpart pertaining to the MACT and RACT standards in § 63.562(d) no later than 30 months after the effective date.

TABLE 1 OF § 63.560.—GENERAL PROVISIONS APPLICABILITY TO SUBPART Y

Reference	Applies to affected sources in subpart Y	Comment
63.1(a)(1)	Yes	Additional terms are defined in § 63.561; when overlap between subparts A and Y occurs, subpart Y takes precedence.
63.1(a)(2)	Yes	
63.1(a)(3)	Yes	
63.1(a)(4)	Yes	Subpart Y clarifies the applicability of each paragraph in subpart A to sources subject to subpart Y in this table.
63.1(a)(5)	No	Reserved.
63.1(a)(6)	Yes	
63.1(a)(7)	Yes	
63.1(a)(8)	Yes	
63.1(a)(9)	No	Reserved.
63.1(a)(10)	Yes	
63.1(a)(11)	Yes	§ 63.567(a) also allows report submissions via facsimile and on electronic media.
63.1(a)(12)	Yes	
63.1(a)(13)	Yes	
63.1(a)(14)	Yes	
63.1(b)(1)	Yes	
63.1(b)(2)	Yes	
63.1(b)(3)	No	§ 63.560 specifies applicability.
63.1(c)(1)	Yes	Subpart Y clarifies the applicability of each paragraph in subpart A to sources subject to subpart Y in this table.
63.1(c)(2)	Yes	Subpart Y is not applicable to area sources.
63.1(c)(3)	No	Reserved.
63.1(c)(4)	Yes	

TABLE 1 OF § 63.560.—GENERAL PROVISIONS APPLICABILITY TO SUBPART Y—Continued

Reference	Applies to affected sources in subpart Y	Comment
63.1(c)(5)	No	§ 63.560 specifies applicability.
63.1(d)	No	Reserved.
63.1(e)	Yes	
63.2	Yes	Additional terms are defined in § 63.561; when overlap between subparts A and Y occurs, subpart Y takes precedence.
63.3	Yes	Other units used in subpart Y are defined in the text of subpart Y.
63.4(a)(1)	Yes	
63.4(a)(2)	Yes	
63.4(a)(3)	Yes	
63.4(a)(4)	No	Reserved.
63.4(a)(5)	Yes	
63.4(b)	Yes	
63.4(c)	Yes	
63.5(a)	Yes	
63.5(b)(1)(i)	Yes	
63.5(b)(1)(ii)	No	Reserved.
63.5(b)(2)	No	
63.5(b)(3)	Yes	
63.5(b)(4)–(5)	No	
63.5(b)(6)	Yes	
63.5(c)	No	Reserved.
63.5(d)(1)(i)	No	See § 63.566(b)(2).
63.5(d)(1)(ii)(A)(H)	Yes	
63.5(d)(1)(ii)(I)	No	Reserved.
63.5(d)(1)(ii)(J)	Yes	
63.5(d)(1)(iii)	Yes	
63.5(d)(2)–(4)	Yes	
63.5(e)	Yes	
63.5(f)(1)(i) and (ii)	Yes	
63.5(f)(1)(iii) and (iv)	No	
63.5(f)(2)	No	See § 63.566(c).
63.6(a)(1)	Yes	
63.6(a)(2)	No	§ 63.560 specifies applicability.
63.6(b)(1)–(5)	No	§ 63.560(e) specifies compliance dates for sources.
63.6(b)(6)	No	Reserved.
63.6(b)(7)	No	§ 63.560(a) specifies compliance dates for sources.
63.6(c)(1)	No	§ 63.560(e) specifies compliance dates for sources.
63.6(c)(2)	No	
63.6(c)(3)–(4)	No	Reserved.
63.6(c)(5)	No	§ 63.560(e) specifies compliance dates for sources.
63.6(d)	No	Reserved.
63.6(e)	No	See § 63.562(e).
63.6(f)(1)	Yes	
63.6(f)(2)(i)	Yes	
63.6(f)(2)(ii)	No	
63.6(f)(2)(iii)	Yes	
63.6(f)(2)(iv)	Yes	
63.6(f)(2)(v)	No	See § 63.562(e)(1).
63.6(f)(3)	Yes	
63.6(g)	Yes	
63.6(h)	No	No opacity monitoring is required under subpart Y.
63.6(i)(1)–(3)	Yes	
63.6(i)(4)(i)(A)	No	
63.6(i)(4)(i)(B)	Yes	
63.6(i)(4)(ii)	No	
63.6(i)(5)–(12)	Yes	
63.6(i)(13)	No	
63.6(i)(14)	Yes	
63.6(i)(15)	No	Reserved.
63.6(i)(16)	Yes	
63.6(j)	Yes	
63.7(a)(1)	Yes	
63.7(a)(2)(i)–(iv)	No	See § 63.563(b)(1).
63.7(a)(2)(v)	Yes	
63.7(a)(2)(vi)	No	
63.7(a)(2)(vii)–(viii)	No	Reserved.
63.7(a)(2)(ix)	No	
63.7(a)(3)	Yes	

TABLE 1 OF § 63.560.—GENERAL PROVISIONS APPLICABILITY TO SUBPART Y—Continued

Reference	Applies to affected sources in subpart Y	Comment
63.7(b)	Yes	
63.7(c)(1)–(2)	Yes	The site-specific test plan must be submitted only if requested by the Administrator.
63.7(c)(3)(i)–(ii)(A)	Yes	
63.7(c)(3)(ii)(B)	No	See § 63.565(m)(2).
63.7(c)(3)(iii)	Yes	
63.7(c)(4)	Yes	
63.7(d)	Yes	
63.7(e)	Yes	
63.7(f)	Yes	
63.7(g)(1)	Yes	
63.7(g)(2)	No	Reserved.
63.7(g)(3)	Yes	
63.7(h)	Yes	
63.8(a)(1)–(2)	Yes	
63.8(a)(3)	No	Reserved.
63.8(a)(4)	Yes	
63.8(b)(1)	Yes	
63.8(b)(2)	No	
63.8(b)(3)	Yes	
63.8(c)(1)(i)	Yes	
63.8(c)(1)(ii)	No	
63.8(c)(1)(iii)	Yes	
63.8(c)(2)	Yes	
63.8(c)(3)	Yes	
63.8(c)(4)	No	See § 63.564(a)(3).
63.8(c)(5)	No	
63.8(c)(6)	Yes	See also performance specifications for continuous monitoring systems § 63.564(a)(4). See also § 63.564(a)(5).
63.8(c)(7)(i)(A)–(B)	Yes	
63.8(c)(7)(i)(C)	No	
63.8(c)(7)(ii)	Yes	
63.8(c)(8)	No	See § 63.564(a)(5).
63.8(d)	No	See § 63.562(e)(2)(iv).
63.8(e)(1)–(4)	Yes	
63.8(e)(5)(i)	Yes	
63.8(e)(5)(ii)	No	
63.8(f)(1)	Yes	
63.8(f)(2)(i)–(vii)	Yes	
63.8(f)(2)(viii)	No	
63.8(f)(2)(ix)	Yes	
63.8(f)(3)–(6)	Yes	
63.8(g)	Yes	
63.9(a)(1)	Yes	
63.9(a)(2)	Yes	
63.9(a)(3)	Yes	
63.9(a)(4)	Yes	
63.9(b)(1)(i)	Yes	
63.9(b)(1)(ii)	No	See § 63.567(b)(1)
63.9(b)(1)(iii)	Yes	
63.9(b)(2)	No	See § 63.567(b)(2).
63.9(b)(3)	No	See § 63.567(b)(3).
63.9(b)(4)	No	See § 63.567(b)(4).
63.9(b)(5)	No	See § 63.567(b)(4).
63.9(c)	No	See § 63.567(c).
63.9(d)	No	
63.9(e)	Yes	
63.9(f)	No	
63.9(g)(1)	Yes	
63.9(g)(2)	No	
63.9(g)(3)	Yes	
63.9(h)(1)–(3)	Yes	
63.9(h)(4)	No	Reserved.
63.9(h)(5)–(6)	Yes	
63.9(i)	Yes	
63.9(j)	Yes	
63.10(a)	Yes	
63.10(b)(1)	Yes	
63.10(b)(2)(i)	No	
63.10(b)(2) (ii)–(iii)	Yes	

TABLE 1 OF § 63.560.—GENERAL PROVISIONS APPLICABILITY TO SUBPART Y—Continued

Reference	Applies to affected sources in subpart Y	Comment
63.10(b)(2)(iv)	No	
63.10(b)(2)(v)	No	
63.10(b)(2)(vi)–(xiv)	Yes	
63.10(b)(3)	No	See § 63.567(j)(4).
63.10(c)(1)	Yes	
63.10(c)(2)–(4)	No	Reserved.
63.10(c)(5)	Yes	
63.10(c)(6)	No	See § 63.564(a)(5).
63.10(c)(7)	No	
63.10(c)(8)	Yes	
63.10(c)(9)	No	Reserved.
63.10(c)(10)–(13)	Yes	
63.10(c)(14)	No	See § 63.562(d)(2)(iv).
63.10(c)(15)	No	
63.10(d)(1)–(2)	Yes	
63.10(d)(3)	No	See § 63.567(d).
63.10(d)(4)	Yes	
63.10(d)(5)	No	
63.10(e)(1)	Yes	
63.10(e)(2)(i)	Yes	
63.10(e)(2)(ii)	No	
63.10(e)(3)(i)–(v)	No	See § 63.567(e)
63.10(e)(3)(vi)	Yes	
63.10(e)(3)(vii)–(viii)	No	See § 63.567(e)
63.10(e)(4)	No	
63.10(f)	Yes	
63.11	Yes	
63.12–63.15	Yes	

§ 63.561 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act or in subpart A of this part.

Affected source means a source with emissions of 10 or 25 tons, a new source with emissions less than 10 and 25 tons, a new major source offshore loading terminal, a source with throughput of 10 M barrels or 200 M barrels, or the VMT source, that is subject to the emissions standards in § 63.562.

Air pollution control device or control device means a combustion device or vapor recovery device.

Ballasting operations means the introduction of ballast water into a cargo tank of a tankship or oceangoing barge.

Baseline operating parameter means a minimum or maximum value of a process parameter, established for a control device during a performance test where the control device is meeting the required emissions reduction or established as the manufacturer recommended operating parameter, that, if achieved by itself or in combination with one or more other operating parameters, determines if a control device is operating properly.

Boiler means a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. This term includes any duct

burner that combusts fuel and is part of a combined cycle system.

Car-seal means a seal that is placed on a device used to change the position of a valve (e.g., from open to closed) in such a way that the position of the valve cannot be changed without breaking the seal.

Combustion device means all equipment, including, but not limited to, thermal incinerators, catalytic incinerators, flares, boilers, and process heaters used for combustion or destruction of organic vapors.

Commenced means, with respect to construction of an air pollution control device, that an owner or operator has undertaken a continuous program of construction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction.

Commodity means a distinct product that a source loads onto marine tank vessels.

Continuous means, with respect to monitoring, reading and recording (either in hard copy or computer readable form) of data values measured at least once every 15 minutes.

Crude oil means a naturally occurring mixture consisting predominantly of hydrocarbons and/or sulfur, nitrogen, and oxygen derivatives of hydrocarbons that is removed from the earth in a

liquid state or is capable of being so removed.

Exceedance or Variance means, with respect to parametric monitoring, the operating parameter of the air pollution control device that is monitored as an indication of proper operation of the control device is outside the acceptable range or limits for the baseline parameter given in § 63.563(b)(4) through (9).

Excess emissions means, with respect to emissions monitoring, the concentration of the outlet stream of the air pollution control device is outside the acceptable range or limits for the baseline concentration given in § 63.563(b)(4) through (9).

Flow indicator means a device that indicates whether gas flow is present in a line or vent system.

Gasoline means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kPa (4.0 psia) or greater, that is used as a fuel for internal combustion engines.

Impurity means HAP substances that are present in a commodity or that are produced in a process coincidentally with the primary product or commodity and that are 0.5 percent total HAP by weight or less. An impurity does not serve a useful purpose in the production

or use of the primary product or commodity and is not isolated.

Leak means a reading of 10,000 parts per million volume (ppmv) or greater as methane that is determined using the test methods in Method 21, appendix A of part 60 of this chapter.

Lightering or Lightering operation means the offshore transfer of a bulk liquid cargo from one marine tank vessel to another vessel.

Loading berth means the loading arms, pumps, meters, shutoff valves, relief valves, and other piping and valves necessary to fill marine tank vessels. The loading berth includes those items necessary for an offshore loading terminal.

Loading cycle means the time period from the beginning of filling a single marine tank vessel until commodity flow to the marine tank vessel ceases.

Maintenance allowance means a period of time that an affected source is allowed to perform maintenance on the loading berth without controlling emissions from marine tank vessel loading operations.

Marine tank vessel loading operation means any operation under which a commodity is bulk loaded onto a marine tank vessel from a terminal, which may include the loading of multiple marine tank vessels during one loading operation. Marine tank vessel loading operations do not include refueling of marine tank vessels.

Marine vessel or Marine tank vessel means any tank ship or tank barge that transports liquid product such as gasoline or crude oil in bulk.

Nonvapor-tight means any marine tank vessel that does not pass the required vapor-tightness test.

Offshore loading terminal means a location that has at least one loading berth that is 0.81 km (0.5 miles) or more from the shore that is used for mooring a marine tank vessel and loading liquids from shore.

Primary fuel means the fuel that provides the principal heat input to the device. To be considered primary, the fuel must be able to sustain operation of the device without the addition of other fuels.

Process heater means a device that transfers heat liberated by burning fuel to fluids contained in tubes, including all fluids except water that are heated to produce steam.

Recovery device means an individual unit of equipment, including, but not limited to, a carbon adsorber, condenser/refrigeration unit, or absorber that is capable of and used for the purpose of removing vapors and recovering liquids or chemicals.

Routine loading means, with respect to the VMT source, marine tank vessel loading operations that occur as part of normal facility operation over a loading berth when no loading berths are inoperable due to maintenance.

Secondary fuel means any fuel other than the primary fuel. The secondary fuel provides supplementary heat in addition to the heat provided by the primary fuel and is generally fired through a burner other than the primary burner.

Source(s) means any location where at least one dock or loading berth is bulk loading onto marine tank vessels, except offshore drilling platforms and lightering operations.

Source(s) with emissions less than 10 and 25 tons means major source(s) having aggregate actual HAP emissions from marine tank vessel loading operations at all loading berths as follows:

(1) Prior to the compliance date, of less than 9.1 Mg (10 tons) of each individual HAP calculated on a 24-month annual average basis after September 19, 1997 and less than 22.7 Mg (25 tons) of all HAP combined calculated on a 24-month annual average basis after September 19, 1997, as determined by emission estimation in § 63.565(l) of this subpart; and

(2) After the compliance date, of less than 9.1 Mg (10 tons) of each individual HAP calculated annually after September 20, 1999 and less than 22.7 Mg (25 tons) of all HAP combined calculated annually after September 20, 1999, as determined by emission estimation in § 63.565(l) of this subpart.

Source(s) with emissions of 10 or 25 tons means major source(s) having aggregate actual HAP emissions from marine tank vessels loading operations at all loading berths as follows:

(1) Prior to the compliance date, emissions of 9.1 Mg (10 tons) or more of each individual HAP calculated on a 24-month annual average basis after September 19, 1997 or of 22.7 Mg (25 tons) or more of all HAP combined calculated on a 24-month annual average basis after September 19, 1997, as determined by emission estimation in § 63.565(l); or

(2) After the compliance date, emissions of 9.1 Mg (10 tons) or more of each individual HAP calculated annually after September 20, 1999 or of 22.7 Mg (25 tons) or more of all HAP combined calculated annually after September 20, 1999, as determined by emission estimation in § 63.565(l).

Source(s) with throughput less than 10 M barrels and 200 M barrels means source(s) having aggregate loading from

marine tank vessel loading operations at all loading berths as follows:

(1) Prior to the compliance date, of less than 1.6 billion liters (10 million (M) barrels) of gasoline on a 24-month annual average basis and of less than 32 billion liters (200 M barrels) of crude oil on a 24-month annual average basis after September 19, 1996; and

(2) After the compliance date, of less than 1.6 billion liters (10 M barrels) of gasoline annually and of less than 32 billion liters (200 M barrels) of crude oil annually after September 21, 1998.

Source(s) with throughput of 10 M barrels or 200 M barrels means source(s) having aggregate loading from marine tank vessel loading operations at all loading berths as follows:

(1) Prior to the compliance date, of 1.6 billion liters (10 M barrels) or more of gasoline on a 24-month annual average basis or of 32 billion liters (200 M barrels) or more of crude oil on a 24-month annual average basis after September 19, 1996; or

(2) After the compliance date, of 1.6 billion liters (10 M barrels) or more of gasoline annually or of 32 billion liters (200 M barrels) or more of crude oil annually after September 21, 1998.

Terminal means all loading berths at any land or sea based structure(s) that loads liquids in bulk onto marine tank vessels.

Twenty-four-month (24-month) annual average basis means annual HAP emissions, with respect to MACT standards, or annual loading throughput, with respect to RACT standards, from marine tank vessel loading operations averaged over a 24-month period.

Valdez Marine Terminal (VMT) source means the major source that is permitted under the Trans-Alaska Pipeline Authorization Act (TAPAA) (43 U.S.C. § 1651 *et seq.*). The source is located in Valdez, Alaska in Prince William Sound.

Vapor balancing system means a vapor collection system or piping system that is designed to collect organic HAP vapors displaced from marine tank vessels during marine tank vessel loading operations and that is designed to route the collected organic HAP vapors to the storage vessel from which the liquid being loaded originated or to compress collected organic HAP vapors and commingle with the raw feed of a process unit.

Vapor collection system means any equipment located at the source, i.e., at the terminal, that is not open to the atmosphere, that is composed of piping, connections, and flow inducing devices, and that is used for containing and transporting vapors displaced during

the loading of marine tank vessels to a control device or for vapor balancing. This does not include the vapor collection system that is part of any marine vessel vapor collection manifold system.

Vapor-tight marine vessel means a marine tank vessel that has demonstrated within the preceding 12 months to have no leaks. A marine tank vessel loaded at less than atmospheric pressure is assumed to be vapor tight for the purpose of this standard.

Volatile organic compounds or VOC is as defined in 40 CFR 51.100(s) of this chapter.

§ 63.562 Standards.

(a) The emissions limitations in paragraphs (b), (c), and (d) of this section apply during marine tank vessel loading operations.

(b) *MACT standards, except for the VMT source.*

(1)(i) *Vapor collection system of the terminal.* The owner or operator of a new source with emissions less than 10 and 25 tons and an existing or new source with emissions of 10 or 25 tons shall equip each terminal with a vapor collection system that is designed to collect HAP vapors displaced from marine tank vessels during marine tank vessel loading operations and to prevent HAP vapors collected at one loading berth from passing through another loading berth to the atmosphere, except for those commodities exempted under § 63.560(d).

(ii) *Ship-to-shore compatibility.* The owner or operator of a new source with emissions less than 10 and 25 tons and an existing or new source with emissions of 10 or 25 tons shall limit marine tank vessel loading operations to those vessels that are equipped with vapor collection equipment that is compatible with the terminal's vapor collection system, except for those commodities exempted under § 63.560(d).

(iii) *Vapor tightness of marine vessels.* The owner or operator of a new source with emissions less than 10 and 25 tons and an existing or new source with emissions of 10 or 25 tons shall limit marine tank vessel loading operations to those vessels that are vapor tight and to those vessels that are connected to the vapor collection system, except for those commodities exempted under § 63.560(d).

(2) *MACT standards for existing sources with emissions of 10 or 25 tons.* The owner or operator of an existing source with emissions of 10 or 25 tons, except offshore loading terminals and the VMT source, shall reduce captured HAP emissions from marine tank vessel

loading operations by 97 weight-percent, as determined using methods in § 63.565 (d) and (l).

(3) *MACT standards for new sources.* The owner or operator of a new source with emissions less than 10 and 25 tons or a new source with emissions of 10 or 25 tons, except offshore loading terminals and the VMT source, shall reduce HAP emissions from marine tank vessel loading operations by 98 weight-percent, as determined using methods in § 63.565 (d) and (l).

(4) *MACT standards for new major source offshore loading terminals.* The owner or operator of a new major source offshore loading terminal shall reduce HAP emissions from marine tank vessel loading operations by 95 weight-percent, as determined using methods in § 63.565 (d) and (l).

(5) *Prevention of carbon adsorber emissions during regeneration.* The owner or operator of a source subject to paragraph (b)(2), (3), or (4) shall prevent HAP emissions from escaping to the atmosphere from the regeneration of the carbon bed when using a carbon adsorber to control HAP emissions from marine tank vessel loading operations.

(6) *Maintenance allowance for loading berths.* The owner or operator of a source subject to paragraph (b)(2), (3) or (4), may apply for approval to the Administrator for a maintenance allowance for loading berths based on a percent of annual throughput or annual marine tank vessel loading operation time for commodities not exempted in § 63.560(d). The owner or operator shall maintain records for all maintenance performed on the air pollution control equipment. The Administrator will consider the following in approving the maintenance allowance:

(i) The owner or operator expects to be in violation of the emissions standards due to maintenance;

(ii) Due to conditions beyond the reasonable control of the owner or operator, compliance with the emissions standards during maintenance would result in unreasonable economic hardship;

(iii) The economic hardship cannot be justified by the resulting air quality benefit;

(iv) The owner or operator has given due consideration to curtailing marine vessel loading operations during maintenance;

(v) During the maintenance allowance, the owner or operator will endeavor to reduce emissions from other loading berths that are controlled as well as from the loading berth the owner or operator is seeking the maintenance allowance; and

(vi) During the maintenance allowance, the owner or operator will monitor and report emissions from the loading berth to which the maintenance allowance applies.

(c) *RACT standards, except the VMT source.*

(1) *Commencement of construction.* The owner or operator of a source with throughput of 10 M barrels or 200 M barrels, except the VMT source, with an initial startup date on or before September 21, 1998 shall provide the Agency no later than 2 years after the effective date with proof that it has commenced construction of its vapor collection system and air pollution control device.

(2)(i) *Vapor collection system of the terminal.* The owner or operator of a source with throughput of 10 M barrels or 200 M barrels shall equip each terminal with a vapor collection system that is designed to collect VOC vapors displaced from marine tank vessels during loading and to prevent VOC vapors collected at one loading berth from passing through another loading berth to the atmosphere, except for those commodities exempted under § 63.560(d).

(ii) *Ship-to-shore compatibility.* The owner or operator of a source with throughput of 10 M barrels or 200 M barrels shall limit marine tank vessel loading operations to those vessels that are equipped with vapor collection equipment that is compatible with the terminal's vapor collection system, except for those commodities exempted under § 63.560(d).

(iii) *Vapor tightness of marine vessels.* The owner or operator of a source with throughput of 10 M barrels or 200 M barrels shall limit marine tank vessel loading operations to those vessels that are vapor-tight and to those vessels that are connected to the vapor collection system, except for those commodities exempted under § 63.560(d).

(3) *RACT standard for sources with throughput of 10 M or 200 M barrels, except the VMT source.* The owner or operator of a source with throughput of 10 M barrels or 200 M barrels, except the VMT source, shall reduce captured VOC emissions from marine tank vessel loading operations by 98 weight-percent when using a combustion device or reduce captured VOC emissions by 95 weight-percent when using a recovery device, as determined using methods in § 63.565(d) and (l).

(4) The owner or operator of a source with throughput of 10 M barrels or 200 M barrels, except the VMT source, may meet the requirements of paragraph (c)(3) by reducing gasoline loading

emissions to, at most, 1,000 ppmv outlet VOC concentration.

(5) *Prevention of carbon adsorber emissions during regeneration.* The owner or operator of a source with throughput of 10 M barrels or 200 M barrels shall prevent HAP emissions from escaping to the atmosphere from the regeneration of the carbon bed when using a carbon adsorber to control HAP emissions from marine tank vessel loading operations.

(6) *Maintenance allowance for loading berths.* The owner or operator of a source with throughput of 10 M barrels or 200 M barrels may apply for approval to the Administrator for a maintenance allowance for loading berths based on a percent of annual throughput or annual marine tank vessel loading operation time for commodities not exempted in § 63.560(d). The owner or operator shall maintain records for all maintenance performed on the air pollution control equipment. The Administrator will consider the following in approving the maintenance allowance:

(i) The owner or operator expects to be in violation of the emissions standards due to maintenance;

(ii) Due to conditions beyond the reasonable control of the owner or operator, compliance with the emissions standards during maintenance would result in unreasonable economic hardship;

(iii) The economic hardship cannot be justified by the resulting air quality benefit;

(iv) The owner or operator has given due consideration to curtailing marine vessel loading operations during maintenance;

(v) During the maintenance allowance, the owner or operator will endeavor to reduce emissions from other loading berths that are controlled as well as from the loading berth the owner or operator is seeking the maintenance allowance; and

(vi) During the maintenance allowance, the owner or operator will monitor and report emissions from the loading berth to which the maintenance allowance applies.

(d) *MACT and RACT standards for the VMT source.*

(1) (i) *Vapor collection system of the terminal.* The owner or operator of the VMT source shall equip each terminal subject under paragraph (d)(2) with a vapor collection system that is designed to collect HAP vapors displaced from marine tank vessels during marine tank vessel loading operations and to prevent HAP vapors collected at one loading berth from passing through another loading berth to the atmosphere, except

for those commodities exempted under § 63.560(d).

(ii) *Ship-to-shore compatibility.* The owner or operator of the VMT source shall limit marine tank vessel loading operations at berths subject under paragraph (d)(2) of this section to those vessels that are equipped with vapor collection equipment that is compatible with the terminal's vapor collection system, except for those commodities exempted under § 63.560(d).

(iii) *Vapor tightness of marine vessels.* The owner or operator of the VMT source shall limit marine tank vessel loading operations at berths subject under paragraph (d)(2) of this section to those vessels that are vapor-tight and to those vessels that are connected to the vapor collection system, except for those commodities exempted under § 63.560(d).

(2) The owner or operator of the VMT source shall reduce captured HAP and VOC emissions by 98 weight-percent, as determined using methods in § 63.565(d) and (f) for loading berths subject under this paragraph according to paragraphs (d)(2)(i), (ii), (iii), and (iv):

(i) The owner or operator of the VMT source shall equip at least two loading berths and any additional berths indicated pursuant to paragraph (d)(2)(iii) with a vapor collection system and air pollution control device and shall load marine tank vessels over loading berths equipped with a vapor collection system and control device to the maximum extent practicable. The owner or operator shall equip all loading berths that will be used for routine loading after March 19, 1998 with a vapor collection system and control device if the annual average daily loading rate for all loading berths exceeds the limits in paragraphs (d)(2)(i)(A), (B), and (C) of this section.

(A) For 1995, 1,630,000 barrels per day; and

(B) For 1996, 1,546,000 barrels per day; and

(C) For 1997, 1,445,000 barrels per day.

(ii) Maximum extent practicable means that the total annual average daily loading over all loading berths not equipped with a vapor collection system and control device shall not exceed the totals in paragraphs (d)(2)(ii)(A) and (B):

(A) *Loading allowances for marine tank vessel loading operations at loading berths not equipped with control devices.* The following maximum annual average daily loading rate for routine loading at loading berths not equipped with control devices in any of the following years shall not exceed:

(a) For 1998, 275,000 barrels per day;

(b) For 1999, 205,000 barrels per day;

(c) For 2000, 118,000 barrels per day;

(d) For 2001, 39,000 barrels per day;

and

(e) For 2002 and subsequent years, no marine tank vessel loading operations shall be performed at berths not equipped with a vapor collection system and control device, except as allowed for maintenance under paragraph (B).

(B) *Maintenance allowances for loading berths subject under paragraph (d)(2)(i).* Beginning in the year 2000, the owner or operator of the VMT source may have a maximum of 40 calendar days per calendar year use of loading berths not equipped with a vapor collection system and control device, in accordance with the limits in paragraph (d)(2)(ii)(B)(a), (b), or (c), to allow for maintenance of loading berths subject to paragraph (d)(2)(i). Beginning in the year 2002, the total annual average daily loading of crude oil over all loading berths not equipped with a vapor collection system and control device shall not exceed the amount stated in paragraph (d)(2)(ii)(B)(b). The 40 days allowed for maintenance shall be converted into a compliance measure of annual average daily loading over the loading berths not equipped with a vapor collection system and control device as follows:

(a) If the total annual average daily volume of crude oil loaded at the facility was greater than or equal to 1,100,000 barrels per day in the prior calendar year, the maintenance allowance shall not exceed an annual average daily loading of 60,000 barrels per day.

(b) If the total annual average daily volume of crude oil loaded at the facility was less than 1,100,000 barrels per day and greater than or equal to 550,000 barrels per day in the prior calendar year, the maintenance allowance for the calendar year shall not exceed Q_m :

$$Q_m = \frac{(P - 550,000) \times 40}{365}$$

Where:

Q_m = maintenance allowance, barrels per day

P = prior calendar year's average daily volume of crude oil loaded at the facility, barrels per day.

(c) If the total annual average daily volume of crude oil loaded at the facility was less than 550,000 barrels per day in the prior calendar year, there shall be no maintenance allowance.

(iii) If the average daily loading rate for the loading berths not equipped with a vapor collection system and control device is greater than the combined

amounts in any year listed in paragraphs (d)(2)(i)(A), (B), and (C) and (d)(2)(ii)(A) and (B), then the owner or operator of the VMT source shall equip all loading berths used for routine loading with a vapor collection system and control device within 2 years of the exceedance except that in an emergency situation the Administrator may, instead of requiring controls, approve an alternative plan to reduce loading over the unequipped berth(s) to a level which will ensure compliance with the applicable limit. Beginning in the year 2002, the owner or operator of the VMT source shall equip all uncontrolled loading berths used for marine tank vessel loading operations beyond the maintenance allowance in paragraph (d)(2)(ii)(B) with a vapor collection system and control device.

(iv) The owner or operator of the VMT source shall develop a program to communicate to relevant facility operations and marine transportation personnel and engage their active and consistent participation in honoring the intent and goal of minimizing loaded volumes over the unequipped berths and maximizing the loaded volumes at the berths equipped with a vapor collection system and control device to prevent exceedance of the load volume limits in paragraphs (d)(2)(i)(A) and (B). This program is to be presented semi-annually during the first year of compliance and annually thereafter until the use of unequipped berths for routine loading is no longer required.

(3) The owner or operator of the VMT source shall submit annual reports on or before January 31 of each year to the Administrator, certifying the annual average daily loading rate for the previous calendar year. Beginning on January 31, 1996, for the reported year 1995, the annual report shall specify the annual average daily loading rate over all loading berths. Beginning on January 31, 1999, for the reported year 1998, the annual report shall specify the annual average daily loading rate over all loading berths, over each loading berth equipped with a vapor collection system and control device, and over each loading berth not equipped with a vapor collection system and control device. The annual average daily loading rate under this section is calculated as the total amount of crude oil loaded during the calendar year divided by 365 days or 366 days, as appropriate.

(e) *Operation and maintenance requirements for air pollution control equipment and monitoring equipment for affected sources.* At all times, including periods of startup, shutdown, and malfunction, owners or operators of affected sources shall operate and

maintain a source, including associated air pollution control equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(1) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards by evaluating an owner or operator's conformance with operation and maintenance requirements.

(2) The owner or operator of an affected source shall develop and implement a written operation and maintenance plan that describes in detail a program of corrective action for varying (i.e., exceeding baseline parameters) air pollution control equipment and monitoring equipment, based on monitoring requirements in § 63.564, used to comply with these emissions standards. The plan shall also identify all routine or otherwise predictable continuous monitoring system (thermocouples, pressure transducers, continuous emissions monitors (CEMS), etc.) variances.

(i) The plan shall specify procedures (preventive maintenance) to be followed to ensure that pollution control equipment and monitoring equipment functions properly and variances of the control equipment and monitoring equipment are minimal.

(ii) The plan shall identify all operating parameters to be monitored and recorded for the air pollution control device as indicators of proper operation and shall establish the frequency at which the parameters will be monitored (see § 63.564).

(iii) Owners or operators of affected sources shall incorporate a standardized inspection schedule for each component of the control device used to comply with the emissions standards in § 63.562(b), (c), and (d). To satisfy the requirements of this paragraph, the owner or operator may use the inspection schedule recommended by the vendor of the control system or any other technical publication regarding the operation of the control system.

(iv) Owners or operators shall develop and implement a continuous monitoring system (CMS) quality control program. The owner or operator shall develop and submit to the Administrator for approval upon request a site-specific performance evaluation test plan for the

CMS performance evaluation required in § 63.8(e) of subpart A of this part. Each quality control program shall include, at a minimum, a written protocol that describes procedures for initial and any subsequent calibration of the CMS; determination and adjustment of the calibration drift of the CMS; preventive maintenance of the CMS, including spare parts inventory; data recording, calculations, and reporting; and accuracy audit procedures, including sampling and analysis methods. The owner or operator shall maintain records of the procedures that are part of the quality control program developed and implemented for CMS.

(3) Based on the results of the determination made under paragraph (e)(2), the Administrator may require that an owner or operator of an affected source make changes to the operation and maintenance plan for that source. Revisions may be required if the plan:

(i) Does not address a variance of the air pollution control equipment or monitoring equipment that has occurred that increases emissions;

(ii) Fails to provide for operation during a variance of the air pollution control equipment or the monitoring equipment in a manner consistent with safety and good air pollution control practices; or

(iii) Does not provide adequate procedures for correcting a variance of the air pollution control equipment or monitoring equipment as soon as reasonable.

(4) If the operation and maintenance plan fails to address or inadequately addresses a variance event at the time the plan was initially developed, the owner or operator shall revise the operation and maintenance plan within 45 working days after such an event occurs. The revised plan shall include procedures for operating and maintaining the air pollution control equipment or monitoring equipment during similar variance events and a program for corrective action for such events.

(5) The operation and maintenance plan shall be developed by the source's compliance date. The owner or operator shall keep the written operation and maintenance plan on record to be made available for inspection, upon request, by the Administrator for the life of the source. In addition, if the operation and maintenance plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the plan on record to be made available for inspection upon request by the Administrator for a period of 5 years after each revision to the plan.

(6) To satisfy the requirements of the operation and maintenance plan, the owner or operator may use the source's standard operating procedures (SOP) manual, an Occupational Safety and Health Administration (OSHA) plan, or other existing plans provided the alternative plans meet the requirements of this section and are made available for inspection when requested by the Administrator.

§ 63.563 Compliance and performance testing.

(a) The following procedures shall be used to determine compliance with the emissions limits under § 63.562(b)(1), (c)(2), and (d)(1):

(1) *Vent stream by-pass requirements for the terminal's vapor collection system.*

(i) In accordance with § 63.562(b)(1)(i), (c)(2)(i), and (d)(1)(i), each valve in the terminal's vapor collection system that would route displaced vapors to the atmosphere, either directly or indirectly, shall be secured closed during marine tank vessel loading operations either by using a car-seal or a lock-and-key type configuration, or the by-pass line from the valve shall be equipped with a flow indicator, except for those valves used for pressure/vacuum relief, analyzers, instrumentation devices, sampling, and venting for maintenance. Marine tank vessel loading operations shall not be performed with open by-pass lines.

(ii) Repairs shall be made to valves, car-seals, or closure mechanisms no later than 15 days after a change in the position of the valve or a break in the car-seal or closure mechanism is detected or no later than prior to the next marine tank vessel loading operation, whichever is later.

(2) *Ship-to-shore compatibility of vapor collection systems.* Following the date on which the initial performance test is completed, marine tank vessel loading operations must be performed only if the marine tank vessel's vapor collection equipment is compatible to the terminal's vapor collection system; marine tank vessel loading operations must be performed only when the marine tank vessel's vapor collection equipment is connected to the terminal's vapor collection system; as required in § 63.562(b)(1)(ii), (c)(2)(ii), and (d)(1)(ii).

(3) *Pressure/vacuum settings for the marine tank vessel's vapor collection equipment.* During the initial performance test required in paragraph (b)(1) of this section, the owner or operator of an affected source shall demonstrate compliance with operating pressure requirements of 33 CFR

154.814 using the procedures in § 63.565(b).

(4) *Vapor-tightness requirements of the marine vessel.* The owner or operator of an affected source shall use the procedures in paragraph (a)(4)(i), (ii), (iii), or (iv) of this section to ensure that marine tank vessels are vapor tight, as required in § 63.562(b)(1)(iii), (c)(2)(iii), and (d)(1)(iii).

(i) *Pressure test documentation for determining vapor tightness of the marine vessel.* The owner or operator of a marine tank vessel, who loads commodities containing HAP not determined to be exempt under § 63.560(d) at an affected source, shall provide a copy of the vapor-tightness pressure test documentation described in § 63.567(i) for each marine tank vessel prior to loading. The date of the test listed in the documentation must be within the preceding 12 months, and the test must be conducted in accordance with the procedures in § 63.565(c)(1). Following the date on which the initial performance test is completed, the affected source must check vapor-tightness pressure test documentation for marine tank vessels loaded at positive pressure.

(ii) *Leak test documentation for determining vapor tightness of the marine vessel.* If no documentation of the vapor tightness pressure test as described in paragraph (a)(4)(i) of this section is available, the owner or operator of a marine tank vessel, who loads commodities containing HAP not determined to be exempt under § 63.560(d) at an affected source, shall provide the leak test documentation described in § 63.567(i) for each marine tank vessel prior to loading. The date of the test listed in the documentation must be within the preceding 12 months, and the test must be conducted in accordance with the procedures in § 63.565(c)(2). If the marine tank vessel has failed its most recent vapor-tightness leak test at that terminal, the owner or operator of the non-vapor-tight marine tank vessel shall provide documentation that the leaks detected during the previous vapor-tightness test have been repaired and documented with a successful vapor-tightness leak test described in § 63.565(c)(2) conducted during loading. If the owner or operator of the marine tank vessel can document that repair is technically infeasible without cleaning and gas freeing or dry-docking the vessel, the owner or operator of the affected source may load the marine tank vessel. Following the date on which the initial performance test is completed, an affected source must check the vapor-tightness leak test documentation for

marine tank vessels loaded at positive pressure.

(iii) *Leak test performed during loading using Method 21 for determining vapor tightness of the marine vessel.* If no documentation of vapor tightness as described in paragraphs (a)(4)(i) or (ii) of this section is available, the owner or operator of a marine tank vessel, who loads commodities containing HAP not determined to be exempt under § 63.560(d) at an affected source, shall perform a leak test of the marine tank vessel during marine tank vessel loading operation using the procedures described in § 63.565(c)(2).

(A) If no leak is detected, the owner or operator of a marine tank vessel shall complete the documentation described in § 63.567(i) prior to departure of the vessel.

(B) If a leak is detected, the owner or operator of the marine tank vessel shall document the vapor-tightness failure for the marine tank vessel prior to departure of the vessel. The leaking component shall be repaired prior to the next marine tank vessel loading operation at a controlled terminal unless the repair is technically infeasible without cleaning and gas freeing or dry-docking the vessel. If the owner or operator of the vessel provides documentation that repair of such equipment is technically infeasible without cleaning and gas freeing or dry-docking the vessel, the equipment responsible for the leak will be excluded from future Method 21 tests until repairs are effected. A copy of this documentation shall be maintained by the owner or operator of the affected source. Repair of the equipment responsible for the leak shall occur the next time the vessel is cleaned and gas freed or dry-docked. For repairs that are technically feasible without dry-docking the vessel, the owner or operator of the affected source shall not load the vessel again unless the marine tank vessel owner or operator can document that the equipment responsible for the leak has been repaired.

(iv) *Negative pressure loading.* The owner or operator of an affected source shall ensure that a marine tank vessel is loaded with the product tank below atmospheric pressure (i.e., at negative gauge pressure). The pressure shall be measured between the facility's vapor connection and its manual isolation valve, and the measured pressure must be below atmospheric pressure. Following the date on which the initial performance test is completed, marine tank vessel loading operations for nonvapor-tight vessels must be performed below atmospheric pressure.

(i.e., at negative gauge pressure) in the product tank.

(b) *Compliance determination for affected sources.* The following procedures shall be used to determine compliance with the emissions limits under § 63.562(b), (c), and (d).

(1) *Initial performance test.* An initial performance test shall be conducted using the procedures listed in § 63.7 of subpart A of this part according to the applicability in Table 1 of § 63.560, the procedures listed in this section, and the test methods listed in § 63.565. The initial performance test shall be conducted within 180 days after the compliance date for the specific affected source. During this performance test, sources subject to MACT standards under § 63.562(b)(2), (3), (4), and (5) and (d)(2) shall determine the reduction of HAP emissions, as VOC, for all combustion or recovery devices other than flares. Sources subject to RACT standards under § 63.562(c)(3), (4), and (5) and (d)(2) shall determine the reduction of VOC emissions for all combustion or recovery devices other than flares.

(2) *Performance test exemptions.* An initial performance test required in this section and in § 63.565(d) and the continuous monitoring in § 63.564(e) is not required in the following cases:

(i) When a boiler or process heater with a design heat input capacity of 44 Megawatts or less is used to comply with § 63.562(b)(2), (3), or (4), (c)(3) or (4), or (d)(2) and the vent stream is used as the primary fuel or with the primary fuel;

(ii) When a boiler or process heater with a design heat input capacity of 44 Megawatts or greater is used to comply with § 63.562(b)(2), (3) or (4), (c)(3) or (4), or (d)(2); or

(iii) When a boiler subject to 40 CFR part 266, subpart H, "Hazardous Waste Burned in Industrial Furnaces," that has demonstrated 99.99 percent destruction or recovery efficiency is used to comply with § 63.562(b)(2), (3), or (4), (c)(3) or (4), or (d)(2).

(3) *Operation and maintenance inspections.* If the 3-hour or 3-cycle block average operating parameters in paragraphs (b)(4) through (9) of this section, outside the acceptable operating ranges, are measured and recorded, i.e., variances of the pollution control device or monitoring equipment, the owner or operator of the affected source shall perform an unscheduled inspection of the control device and monitoring equipment and review of the parameter monitoring data. The owner or operator of the affected source shall perform an inspection and review when total parameter variance time for the control

device is greater than 10 percent of the operating time for marine tank vessel loading operations on a 30-day, rolling-average basis. The inspection and review shall be conducted within 24 hours after passing the allowable variance time of 10 percent. The inspection checklist from the requirements of § 63.562(e)(2)(iii) and the monitoring data from requirements in §§ 63.562(e)(2)(ii) and 63.564 should be used to identify any maintenance problems that may be associated with the variance. The unscheduled inspection should encompass all components of the control device and monitoring equipment that can be inspected while in operation. If any maintenance problem is identified during the inspection, the owner or operator of the affected source must take corrective action (e.g., adjustments to operating controls, etc.) as soon as practicable. If no immediate maintenance problems are identified from the inspection performed while the equipment is operating, a complete inspection in accordance with § 63.562(e)(2) must be conducted prior to the next marine tank vessel loading operation and corrective action (e.g., replacement of defective parts) must be taken as soon as practicable for any maintenance problem identified during the complete inspection.

(4) *Combustion device, except flare.* During the initial performance test required in paragraph (b)(1) of this section, the owner or operator shall determine the efficiency of and/or the outlet VOC concentration from the combustion device used to comply with § 63.562(b)(2), (3), and (4), (c)(3) and (4), and (d)(2) using the test methods in § 63.565(d). The owner or operator shall comply with paragraph (b)(4)(i) or (ii) of this section.

(i) *Outlet VOC concentration limit for required percent combustion efficiency.* The owner or operator shall establish as an operating parameter the baseline VOC concentration using the procedures described in § 63.565(g). Following the date on which the initial performance test is completed, the facility shall be operated with a block average outlet VOC concentration as determined in § 63.564(e)(1) no more than 20 percent above the baseline VOC concentration.

(ii) *Baseline temperature for required percent combustion efficiency.* The owner or operator shall establish as an operating parameter the baseline temperature using the procedures described in § 63.565(f). Following the date on which the initial performance test is completed, the facility shall be operated with the block average temperature as determined in

§ 63.564(e)(2) or (3) no more than 28°C (50°F) below the baseline temperature.

(5) *Flare.* During the initial performance test required in paragraph (b)(1) of this section, the owner or operator shall establish that the flare used to comply with the emissions standards in § 63.562(b)(2), (3), and (4), (c)(3) and (4), and (d)(2) is in compliance with the design requirements for flares cited in § 63.565(e). Following the date on which the initial determination of compliance is established, the facility shall operate with the presence of a pilot flame in the flare, as determined in § 63.564(f).

(6) *Carbon adsorber.* During the initial performance test required in paragraph (b)(1) of this section, the owner or operator shall determine the efficiency of and/or the outlet VOC concentration from the recovery device used to comply with § 63.562(b)(2), (3), (4), and (5), (c)(3), (4), and (5), and (d)(2) using the test methods in § 63.565(d). The owner or operator shall comply with paragraph (b)(6)(i) as well as either paragraph (b)(6)(ii) or (iii) of this section. The owner or operator of affected sources complying with paragraph (b)(6)(ii)(B) or (C) of this section shall conduct a performance test once each year.

(i) *Compliance determination for carbon bed regeneration.* Desorbed hydrocarbons from regeneration of the off-line carbon bed shall be vented to the on-line carbon bed.

(ii) *Baseline parameters for required percent recovery efficiency.* The owner or operator shall comply with paragraph (b)(6)(ii)(A), (B), or (C) of this section.

(A) *Outlet VOC concentration limit for required percent recovery efficiency.* The owner or operator shall establish as an operating parameter the baseline VOC concentration using the procedures described in § 63.565(g). Following the date on which the initial performance test is completed, the facility shall be operated with a block average outlet VOC concentration as determined in § 63.564(g)(1) no more than 20 percent above the baseline VOC concentration.

(B) *Carbon adsorbers with vacuum regeneration.* The owner or operator shall establish as operating parameters the baseline regeneration time for the vacuum stage of carbon bed regeneration using the procedures described in § 63.565(h) and shall establish the baseline vacuum pressure (negative gauge pressure) using the procedures described in § 63.565(i). Following the date on which the initial performance test is completed, the facility shall be operated with block average regeneration time of the vacuum

stage of carbon bed regeneration as determined in § 63.564(g)(2) no more than 20 percent below the baseline regeneration time, and the facility shall be operated with the block average vacuum pressure (negative gauge pressure) as determined in § 63.564(g)(2) no more than 20 percent above the baseline vacuum pressure.

(C) *Carbon adsorbers with steam regeneration.* The owner or operator shall establish as operating parameters the baseline total stream flow using the procedures described in § 63.565(f) and a baseline carbon bed temperature after cooling of the bed using the procedures in § 63.565(f)(2). Following the date on which the initial performance test is completed, the facility shall be operated with the total stream flow, as determined in § 63.564(g)(3), no more than 20 percent below the baseline stream flow and with the carbon bed temperature (measured within 15 minutes after completion of the cooling cycle), as determined in § 63.564(g)(3), no more than 10 percent or 5.6°C (10°F) above the baseline carbon bed temperature, whichever is less stringent.

(iii) *Outlet VOC concentration of 1,000 ppmv for gasoline loading.* Following the date on which the initial performance test is completed, the facility shall operate with a block average outlet VOC concentration as determined in § 63.564(g)(1) of no more than 1,200 ppmv VOC.

(7) *Condenser/refrigeration unit.* During the initial performance test required in paragraph (b)(1) of this section, the owner or operator shall determine the efficiency of and/or the outlet VOC concentration from the recovery device used to comply with § 63.562(b)(2), (3), and (4), (c)(3) and (4), and (d)(2) using the test methods in § 63.565(d). The owner or operator shall comply with either paragraph (b)(7)(i), (ii), or (iii) of this section.

(i) *VOC outlet concentration limit for required percent recovery efficiency.* The owner or operator shall establish as an operating parameter the baseline VOC concentration using the procedures described in § 63.565(g). Following the date on which the initial performance test is completed, the facility shall be operated with a block average outlet VOC concentration as determined in § 63.564(h)(2) no more than 20 percent above the baseline VOC concentration.

(ii) *Baseline temperature for required percent recovery efficiency.* The owner or operator shall establish as an operating parameter the baseline temperature using the procedures described in § 63.565(f). Following the date on which the initial performance test is completed, the facility shall

operate with a block average temperature, as determined in § 63.564(h)(1), no more than 28°C (50°F) above the baseline temperature.

(iii) *Baseline parameters for 1,000 ppmv VOC concentration limit for gasoline loading.* The owner or operator shall monitor either the outlet VOC concentration or the outlet temperature of the unit. For sources monitoring temperature, the owner or operator shall establish as an operating parameter the baseline temperature using the procedures described in § 63.565(f). Following the date on which the initial performance test is completed, the facility shall operate with a block average outlet VOC concentration, as determined in § 63.564(h)(2), of no more than 1,200 ppmv VOC or with a block average temperature, as determined in § 63.564(h)(1), no more than 28°C (50°F) above the baseline temperature.

(8) *Absorber.* During the initial performance test required in paragraph (b)(1) of this section, the owner or operator shall determine the efficiency of the absorber and/or the outlet VOC concentration from the recovery device used to comply with § 63.562(b)(2), (3), and (4), (c)(3) and (4), and (d)(2) using the test methods in § 63.565(d). The owner or operator shall comply with either paragraph (b)(8)(i) or (ii) of this section.

(i) *VOC outlet concentration limit for required percent recovery efficiency.* The owner or operator shall establish as an operating parameter the baseline VOC concentration using the procedures described in § 63.565(g). Following the date on which the initial performance test is completed, the facility shall be operated with a block average outlet VOC concentration as determined in § 63.564(i)(1) no more than 20 percent above the baseline VOC concentration.

(ii) *Baseline liquid-to-vapor ratio for required percent recovery efficiency.* The owner or operator shall establish as an operating parameter the baseline liquid flow to vapor flow (L/V) ratio using the procedures described in § 63.565(k). Following the date on which the initial performance test is completed, the facility shall operate with a block average L/V ratio, as determined in § 63.564(i)(2), no more than 20 percent below the baseline L/V ratio.

(9) *Alternative control devices.* For sources complying with § 63.562(b)(2), (3), and (4), (c)(3) and (4), and (d)(2) with the use of a control technology other than the devices discussed in paragraphs (b)(4) through (8) of this section, the owner or operator of an affected source shall provide to the Administrator information describing

the design and operation of the air pollution control system, including recommendations for the operating parameter(s) to be monitored to indicate proper operation and maintenance of the air pollution control system. Based on this information, the Administrator shall determine the operating parameter(s) to be established during the performance test. During the initial performance test required in paragraph (b)(1) of this section, the owner or operator shall determine the efficiency of the air pollution control system using the test methods in § 63.565(d). The device shall achieve at least the percent destruction efficiency or recovery efficiency required under § 63.562(b)(2), (3), and (4), (c)(3) and (4), and (d)(2). The owner or operator shall establish the operating parameter(s) approved by the Administrator. Following the date on which the initial performance test is complete, the facility shall operate either above or below a maximum or minimum operating parameter, as appropriate.

(10) *Emission estimation.* The owner or operator of a source subject to § 63.562(b)(2), (3), and (4) shall use the emission estimation procedures in § 63.565(l) to calculate HAP emissions.

(c) *Leak detection and repair for vapor collection systems and control devices.* The following procedures are required for all sources subject to § 63.562(b), (c), or (d).

(1) *Annual leak detection and repair for vapor collection systems and control devices.* The owner or operator of an affected source shall inspect and monitor all ductwork and piping and connections to vapor collection systems and control devices once each calendar year using Method 21.

(2) *Ongoing leak detection and repair for vapor collection systems and control devices.* If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method, all ductwork and piping and connections to vapor collection systems and control devices shall be inspected to the extent necessary to positively identify the potential leak and any potential leaks shall be monitored within 5 days by Method 21. Each detection of a leak shall be recorded, and the leak shall be tagged until repaired.

(3) When a leak is detected, a first effort to repair the vapor collection system and control device shall be made within 15 days or prior to the next marine tank vessel loading operation, whichever is later.

§ 63.564 Monitoring requirements.

(a) (1) The owner or operator of an affected source shall comply with the

monitoring requirements in § 63.8 of subpart A of this part in accordance with the provisions for applicability of subpart A to this subpart in Table 1 of § 63.560 and the monitoring requirements in this section.

(2) Each owner or operator of an affected source shall monitor the parameters specified in this section. All monitoring equipment shall be installed such that representative measurements of emissions or process parameters from the source are obtained. For monitoring equipment purchased from a vendor, verification of the operational status of the monitoring equipment shall include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system.

(3) Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, all continuous parametric monitoring systems (CPMS) and CEMS shall be in continuous operation while marine tank vessel loading operations are occurring and shall meet minimum frequency of operation requirements. Sources monitoring by use of CEMS and CPMS shall complete a minimum of one cycle of operation (sampling, analyzing, and/or data recording) for each successive 15-minute period.

(4) The owner or operator of a CEMS installed in accordance with these emissions standards shall comply with the performance specifications either in performance specification (PS) 8 in 40 CFR part 60, appendix B for CEMS or in § 63.7(c)(6) of subpart A of this part for CPMS.

(5) A CEMS is out of control when the measured values (i.e., daily calibrations, multipoint calibrations, and performance audits) exceed the limits specified in either PS 8 or in § 63.8(c)(7) of subpart A of this part. The owner or operator of a CEMS that is out of control shall submit all information concerning out of control periods, including start and end dates and hours and descriptions of corrective actions taken, in the excess emissions and continuous monitoring system performance report required in § 63.567(e).

(b) *Vapor collection system of terminal.* Owners or operators of a source complying with § 63.563(a)(1) that uses a vapor collection system that contains valves that could divert a vent stream from a control device used to comply with the provisions of this subpart shall comply with paragraph (b)(1), (2), or (3) of this section.

(1) Measure and record the vent stream flowrate of each by-pass line

once every 15 minutes. The owner or operator shall install, calibrate, maintain, and operate a flow indicator and data recorder. The flow indicator shall be installed immediately downstream of any valve (i.e., entrance to by-pass line) that could divert the vent stream from the control device to the atmosphere.

(2) Measure the vent stream flowrate of each by-pass line once every 15 minutes. The owner or operator shall install, calibrate, maintain, and operate a flow indicator with either an audio or visual alarm. The flow indicator and alarm shall be installed immediately downstream of any valve (i.e., entrance to by-pass line) that could divert the vent stream from the control device to the atmosphere. The alarm shall be checked every 6 months to demonstrate that it is functioning properly.

(3) Visually inspect the seal or closure mechanism once during each marine tank vessel loading operation and at least once every month to ensure that the valve is maintained in the closed position and that the vent stream is not diverted through the by-pass line; record all times when the car seals have been broken and the valve position has been changed. Each by-pass line valve shall be secured in the closed position with a car-seal or a lock-and-key type configuration.

(c) *Pressure/vacuum settings for the marine tank vessel's vapor collection equipment.* Owners or operators of a source complying with § 63.563(a)(3) shall measure continuously the operating pressure of the marine tank vessel during loading.

(d) *Loading at negative pressure.* Owners or operators of a source complying with § 63.563(a)(4)(iv) that load vessels at less than atmospheric pressure (i.e., negative gauge pressure) shall measure and record the loading pressure. The owner or operator shall install, calibrate, maintain, and operate a recording pressure measurement device (magnehelic gauge or equivalent device) and an audible and visible alarm system that is activated when the pressure vacuum specified in § 63.563(a)(4)(iv) is not attained. The owner or operator shall place the alarm system so that it can be seen and heard where cargo transfer is controlled. The owner or operator shall verify the accuracy of the pressure device once each calendar year with a reference pressure monitor (traceable to National Institute of Standards and Technology (NIST) standards or an independent pressure measurement device dedicated for this purpose).

(e) *Combustion device, except flare.* For sources complying with

§ 63.563(b)(4), use of a combustion device except a flare, the owner or operator shall comply with paragraph (e)(1), (2), or (3) of this section. Owners or operators complying with paragraphs (e)(2) or (3) shall also comply with paragraph (e)(4) of this section.

(1) *Outlet VOC concentration.* Monitor the VOC concentrations at the exhaust point of the combustion device and record the output from the system. For sources monitoring the outlet VOC concentration established during the performance test, a data acquisition system shall record a concentration every 15 minutes and shall compute and record an average concentration each cycle (same time period or cycle as the performance test) and a 3-cycle block average concentration every third cycle. For sources monitoring the 1,000 ppmv VOC concentration for gasoline loading, a data acquisition system shall record a concentration every 15 minutes and shall compute and record an average concentration each hour and a 3-hour block average concentration every third hour. The owner or operator will install, calibrate, operate, and maintain a CEMS consistent with the requirements of PS 8 to measure the VOC concentration. The daily calibration requirements are required only on days when marine tank vessel loading operations occur.

(2) *Operating temperature determined during performance testing.* If the baseline temperature was established during the performance test, the data acquisition system shall record the temperature every 15 minutes and shall compute and record an average temperature each cycle (same time period or cycle of the performance test) and a 3-cycle block average every third cycle.

(3) *Manufacturer's recommended operating temperature.* If the baseline temperature is based on the manufacturer recommended operating temperature, the data acquisition system shall record the temperature every 15 minutes and shall compute and record an average temperature each hour and a 3-hour block average every third hour.

(4) *Temperature monitor.* The owner or operator shall install, calibrate, operate, and maintain a temperature monitor accurate to within $\pm 5.6^{\circ}\text{C}$ ($\pm 10^{\circ}\text{F}$) or within 1 percent of the baseline temperature, whichever is less stringent, to measure the temperature. The monitor shall be installed at the exhaust point of the combustion device but not within the combustion zone. The owner or operator shall verify the accuracy of the temperature monitor once each calendar year with a reference temperature monitor (traceable to National Institute of Standards and

Technology (NIST) standards or an independent temperature measurement device dedicated for this purpose). During accuracy checking, the probe of the reference device shall be at the same location as that of the temperature monitor being tested.

(f) *Flare*. For sources complying with § 63.563(b)(5), use of a flare, the owner or operator shall monitor and record continuously the presence of the flare pilot flame. The owner or operator shall install, calibrate, maintain, and operate a heat sensing device (an ultraviolet beam sensor or thermocouple) at the pilot light to indicate the presence of a flame during the entire loading cycle.

(g) *Carbon adsorber*. For sources complying with § 63.563(b)(6), use of a carbon adsorber, the owner or operator shall comply with paragraph (g)(1), (2), or (3) of this section.

(1) *Outlet VOC concentration*. Monitor the VOC concentrations at the exhaust point of each carbon adsorber unit and record the output from the system. For sources monitoring the outlet VOC concentration established during the performance test, a data acquisition system shall record a concentration every 15 minutes and shall compute and record an average concentration each cycle (same time period or cycle as the performance test) and a 3-cycle block average concentration every third cycle. For sources monitoring the 1,000 ppmv VOC concentration for gasoline loading, a data acquisition system shall record a concentration every 15 minutes and shall compute and record an average concentration each hour and a 3-hour block average concentration every third hour. The owner or operator will install, calibrate, operate, and maintain a CEMS consistent with the requirements of PS 8 to measure the VOC concentration. The daily calibration requirements are required only on days when marine tank vessel loading operations occur.

(2) *Carbon adsorbers with vacuum regeneration*. Monitor and record the regeneration time for carbon bed regeneration and monitor and record continuously the vacuum pressure of the carbon bed regeneration cycle. The owner or operator will record the time when the carbon bed regeneration cycle begins and when the cycle ends for a single carbon bed and will calculate a 3-cycle block average every third cycle. The owner or operator shall install, calibrate, maintain, and operate a recording pressure measurement device (magnehelic gauge or equivalent device). A data acquisition system shall record and compute a 3-cycle (carbon bed regeneration cycle) block average vacuum pressure every third cycle. The

owner or operator shall verify the accuracy of the pressure device once each calendar year with a reference pressure monitor (traceable to National Institute of Standards and Technology (NIST) standards or an independent pressure measurement device dedicated for this purpose). During accuracy checking, the probe of the reference device shall be at the same location as that of the pressure monitor being tested.

(3) *Carbon adsorbers with steam regeneration*. Monitor and record the total stream mass flow and monitor and record the carbon bed temperature after regeneration (but within 15 minutes of completion of the cooling cycle). The owner or operator will install, calibrate, maintain, and operate an integrating stream flow monitoring device that is accurate within ± 10 percent and that is capable of recording the total stream mass flow for each regeneration cycle. The owner or operator will install, calibrate, maintain, and operate a temperature monitor accurate to within $\pm 5.6^\circ\text{C}$ (10°F) or within 1 percent of the baseline carbon bed temperature, whichever is less stringent, to measure the carbon bed temperature. The monitor shall be installed at the exhaust point of the carbon bed. The data acquisition system shall record the carbon bed temperature after each cooling cycle (measured within 15 minutes of completion of the cooling cycle). The owner or operator shall verify the accuracy of the temperature monitor once each calendar year with a reference temperature monitor (traceable to National Institute of Standards and Technology (NIST) standards or an independent temperature measurement device dedicated for this purpose). During accuracy checking, the probe of the reference device shall be at the same location as that of the temperature monitor being tested.

(h) *Condenser/refrigeration unit*. For sources complying with § 63.563(b)(7), use of a condenser/refrigeration unit, the owner or operator shall comply with either paragraph (h)(1) or (2) of this section.

(1) *Baseline temperature*. Monitor and record the temperature at the outlet of the unit. The owner or operator shall install, calibrate, operate, and maintain a temperature monitor accurate to within $\pm 5.6^\circ\text{C}$ ($\pm 10^\circ\text{F}$) or within 1 percent of the baseline temperature, whichever is less stringent, to measure the temperature. The monitor shall be installed at the exhaust point of the condenser/refrigeration unit. For sources monitoring the temperature established during the performance test,

the data acquisition system shall record the temperature every 15 minutes and shall compute and record an average temperature each cycle (same time period or cycle of the performance test) and a 3-hour block average every third cycle. For sources monitoring the manufacturer recommended temperature, the data acquisition system shall record the temperature every 15 minutes and shall compute and record an average temperature each hour and a 3-hour block average every third hour. The owner or operator shall verify the accuracy of the temperature monitor once each calendar year with a reference temperature monitor (traceable to National Institute of Standards and Technology (NIST) standards or an independent temperature measurement device dedicated for this purpose). During accuracy checking, the probe of the reference device shall be at the same location as that of the temperature monitor being tested.

(2) *Outlet VOC concentration*. Monitor the VOC concentrations at the outlet of the unit and record the output from the system. For sources monitoring the outlet VOC concentration established during the performance test, a data acquisition system shall record a concentration every 15 minutes and shall compute and record an average concentration each cycle (same time period or cycle as the performance test) and a 3-cycle block average concentration every third cycle. For sources monitoring the 1,000 ppmv VOC concentration for gasoline loading, a data acquisition system shall record a concentration every 15 minutes and shall compute and record an average concentration each hour and a 3-hour block average concentration every third hour. The owner or operator will install, calibrate, operate, and maintain a VOC CEMS consistent with the requirements of PS 8 to measure the VOC concentration. The daily calibration requirements are required only on days when marine tank vessel loading operations occur.

(i) *Absorber*. For sources complying with § 63.563(b)(8), use of an absorber, the owner or operator shall comply with either paragraph (i)(1) or (2) of this section.

(1) *Outlet VOC concentration*. Monitor the VOC concentrations at the outlet of the absorber and record the output from the system. For sources monitoring the outlet VOC concentration established during the performance test, a data acquisition system shall record a concentration every 15 minutes and shall compute and record an average concentration each cycle (same time period or cycle as the

performance test) and a 3-cycle block average concentration every third cycle. For sources monitoring the 1,000 ppmv VOC concentration for gasoline loading, a data acquisition system shall record a concentration every 15 minutes and shall compute and record an average concentration each hour and a 3-hour block average concentration every third hour. The owner or operator will install, calibrate, operate, and maintain a VOC CEMS consistent with the requirements of PS 8. The daily calibration requirements are required only on days when marine tank vessel loading operations occur.

(2) *L/V ratio.* Monitor and record the inlet liquid flowrate and the inlet gas flowrate to the absorber and record the calculated L/V ratio. The owner or operator shall install, calibrate, maintain, and operate liquid and gas flow indicators. For sources monitoring the L/V ratio established during the performance test, a data acquisition system shall record the flowrates and calculated ratio every 15 minutes and shall compute and record an average ratio each cycle (same time period or cycle as the performance test) and a 3-cycle block average ratio every third cycle. For sources monitoring the manufacturer recommended L/V ratio, a data acquisition system shall record the flowrates and calculated ratio every 15 minutes and shall compute and record an average ratio each hour and a 3-hour average ratio every third hour. The liquid and gas flow indicators shall be installed immediately upstream of the respective inlet lines to the absorber.

(j) *Alternate monitoring procedures.* Alternate procedures to those described in this section may be used upon application to, and approval by, the Administrator. The owner or operator shall comply with the procedures for use of an alternative monitoring method in § 63.8(f).

§ 63.565 Test methods and procedures.

(a) *Performance testing.* The owner or operator of an affected source in § 63.562 shall comply with the performance testing requirements in § 63.7 of subpart A of this part in accordance with the provisions for applicability of subpart A to this subpart in Table 1 of § 63.560 and the performance testing requirements in this section.

(b) *Pressure/vacuum settings of marine tank vessel's vapor collection equipment.* For the purpose of determining compliance with § 63.563(a)(3), the following procedures shall be used:

(1) Calibrate and install a pressure measurement device (liquid manometer,

magnehelic gauge, or equivalent instrument) capable of measuring up to the maximum relief set pressure of the pressure-vacuum vents;

(2) Connect the pressure measurement device to a pressure tap in the terminal's vapor collection system, located as close as possible to the connection with the marine tank vessel; and

(3) During the performance test required in § 63.563(b)(1), record the pressure every 5 minutes while a marine tank vessel is being loaded and record the highest instantaneous pressure and vacuum that occurs during each loading cycle.

(c) *Vapor-tightness test procedures for the marine tank vessel.* When testing a vessel for vapor tightness to comply with the marine vessel vapor-tightness requirements of § 63.563(a)(4)(i), the owner or operator of a source shall use the methods in either paragraph (c)(1) or (2) in this section.

(1) *Pressure test for the marine tank vessel.*

(i) Each product tank shall be pressurized with dry air or inert gas to no more than the pressure of the lowest pressure relief valve setting.

(ii) Once the pressure is obtained, the dry air or inert gas source shall be shut off.

(iii) At the end of one-half hour, the pressure in the product tank and piping shall be measured. The change in pressure shall be calculated using the following formula:

$$P = P_1 - P_2$$

Where:

P=change in pressure, inches of water.

P₁=pressure in tank when air/gas source is shut off, inches of water.

P₂=pressure in tank at the end of one-half hour after air/gas source is shut off, inches of water.

(iv) The change in pressure, P, shall be compared to the pressure drop calculated using the following formula:

$$PM = 0.861 P_{\Delta} L/V$$

Where:

PM=maximum allowable pressure change, inches of water.

P_Δ=pressure in tank when air/gas source is shut off, psia.

L=maximum permitted loading rate of vessel, barrels per hour.

V=total volume of product tank, barrels.

(v) If $P \leq PM$, the vessel is vapor tight.

(vi) If $P > PM$, the vessel is not vapor tight and the source of the leak must be identified and repaired prior to retesting.

(2) *Leak test for the marine tank vessel.* Each owner or operator of a source complying with §§ 63.563(a)(4)(ii) or (iii) shall use

Method 21 as the vapor-tightness leak test for marine tank vessels. The test shall be conducted during the final 20 percent of loading of each product tank of the marine vessel, and it shall be applied to any potential sources of vapor leaks on the vessel.

(d) *Combustion (except flare) and recovery control device performance test procedures.*

(1) All testing equipment shall be prepared and installed as specified in the appropriate test methods.

(2) All testing shall be performed during the last 20 percent of loading of a tank or compartment.

(3) All emission testing intervals shall consist of each 5 minute period during the performance test. For each interval, the following shall be performed:

(i) *Readings.* The reading from each measurement instrument shall be recorded.

(ii) *Sampling Sites.* Method 1 or 1A of appendix A of part 60 of this chapter, as appropriate, shall be used for selection of sampling sites. Sampling sites shall be located at the inlet and outlet of the combustion device or recovery device except for owners or operators complying with the 1,000 ppmv VOC emissions limit for gasoline vapors under § 63.563(b)(6) or (7), where the sampling site shall be located at the outlet of the recovery device.

(iii) *Volume exhausted.* The volume exhausted shall be determined using Method 2, 2A, 2C, or 2D of appendix A of part 60 of this chapter, as appropriate.

(4) *Combustion devices, except flares.* The average VOC concentration in the vent upstream and downstream of the control device shall be determined using Method 25 of appendix A of part 60 of this chapter for combustion devices, except flares. The average VOC concentration shall correspond to the volume measurement by taking into account the sampling system response time.

(5) *Recovery devices.* The average VOC concentration in the vent upstream and downstream of the control device shall be determined using Method 25A of appendix A of part 60 of this chapter for recovery devices. The average VOC concentration shall correspond to the volume measurement by taking into account the sampling system response time.

(6) The VOC mass at the inlet and outlet of the combustion or recovery device during each testing interval shall be calculated as follows:

$$M_i = F_{KV} C_{VOC}$$

Where:

M_i=mass of VOC at the inlet and outlet of the combustion or recovery

device during testing interval j , kilograms (kg).

$F=10^{-6}$ =conversion factor, (cubic meters VOC/cubic meters air)/(1/ppmv) ($\text{m}^3 \text{ VOC}/\text{m}^3 \text{ air}$)(1/ppmv).

K =density, kilograms per cubic meter ($\text{kg}/\text{m}^3 \text{ VOC}$), standard conditions, 20°C and 760 mm Hg.

V_s =volume of air-vapor mixture at the inlet and outlet of the combustion or recovery device, cubic meters (m^3) at standard conditions, 20°C and 760 mm Hg.

C_{VOC} =VOC concentration (as measured) at the inlet and outlet of the combustion or recovery device, ppmv, dry basis.

s =standard conditions, 20°C and 760 mm Hg.

(7) The VOC mass emission rates at the inlet and outlet of the recovery or combustion device shall be calculated as follows:

$$E_i = \frac{\sum_{j=1}^n M_{ij}}{T}$$

$$E_o = \frac{\sum_{j=1}^n M_{oj}}{T}$$

Where:

E_i, E_o =mass flow rate of VOC at the inlet (i) and outlet (o) of the recovery or combustion device, kilogram per hour (kg/hr).

M_{ij}, M_{oj} =mass of VOC at the inlet (i) or outlet (o) during testing interval j , kg.

T =Total time of all testing intervals, hour.

n =number of testing intervals.

(8) Where Method 25 or 25A is used to measure the percent reduction in VOC, the percent reduction across the combustion or recovery device shall be calculated as follows:

$$R = \frac{E_i - E_o}{E_i} (100\%)$$

Where:

R =control efficiency of control device, percent.

E_i =mass flow rate of VOC at the inlet to the combustion or recovery device as calculated under paragraph (c)(7) of this section, kg/hr.

E_o =mass flow rate of VOC at the outlet of the combustion or recovery device, as calculated under paragraph (c)(7) of this section, kg/hr.

(9) Repeat the procedures in paragraph (d)(1) through (d)(8) of this

section 3 times. The arithmetic average percent efficiency of the three runs shall determine the overall efficiency of the control device.

(10) Use of methods other than Method 25 or Method 25A shall be validated pursuant to Method 301 of appendix A of part 63 of this chapter.

(e) *Performance test for flares.* When a flare is used to comply with § 63.562(b)(2), (3), and (4), (c)(3) and (4), and (d)(2), the source must demonstrate that the flare meets the requirements of § 63.11 of subpart A of this part. In addition, a performance test according to Method 22 of appendix A of part 63 shall be performed to determine visible emissions. The observation period shall be at least 2 hours and shall be conducted according to Method 22. Performance testing shall be conducted during three complete loading cycles with a separate test run for each loading cycle. The observation period for detecting visible emissions shall encompass each loading cycle. Integrated sampling to measure process vent stream flow rate shall be performed continuously during each loading cycle. The owner or operator shall record all visible emission readings, heat content determinations, flow rate measurements, maximum permitted velocity calculations, and exit velocity determinations made during the performance test.

(f) *Baseline temperature.* The procedures in this paragraph shall be used to determine the baseline temperature required in § 63.563(b)(4), (6), and (7) for combustion devices, carbon adsorber beds, and condenser/refrigeration units, respectively, and to monitor the temperature as required in § 63.564(e), (g), and (h). The owner or operator shall comply with either paragraph (f)(1) or (2) of this section.

(1) *Baseline temperature from performance testing.* The owner or operator shall establish the baseline temperature as the temperature at the outlet point of the unit averaged over three test runs from paragraph (d) of this section. Temperature shall be measured every 15 minutes.

(2) *Baseline temperature from manufacturer.* The owner or operator shall establish the baseline temperature as the manufacturer recommended minimum operating temperature for combustion devices, maximum operating temperature for condenser units, and maximum operating temperature for carbon beds of carbon adsorbers.

(g) *Baseline outlet VOC concentration.* The procedures in this paragraph shall be used to determine the outlet VOC concentration required in § 63.563(b)(4),

(6), (7), and (8) for combustion devices except flare, carbon adsorbers, condenser/refrigeration units, and absorbers, respectively, and to monitor the VOC concentration as required in § 63.564(e), (g), (h), and (i). The owner or operator shall use the procedures outlined in Method 25A. For the baseline VOC concentration, the arithmetic average of the outlet VOC concentration from three test runs from paragraph (d) of this section shall be calculated for the control device. The VOC concentration shall be measured at least every 15 minutes. Compliance testing of VOC CEMS shall be performed using PS 8.

(h) *Baseline regeneration time for carbon bed regeneration.* The procedures in this paragraph shall be used to demonstrate the baseline regeneration time for the vacuum stage of carbon bed regeneration required in § 63.563(b)(6) for a carbon adsorber and to monitor the regeneration time for the vacuum regeneration as required in § 63.564(g). The owner or operator shall comply with paragraph (h)(1) or (2).

(1) *Baseline regeneration time from performance testing.* The owner or operator shall establish the baseline regeneration time as the length of time for the vacuum stage of carbon bed regeneration averaged over three test runs from paragraph (d) of this section.

(2) *Baseline regeneration time from manufacturer recommendation.* The owner or operator shall establish the baseline regeneration time as the manufacturer recommended minimum regeneration time for the vacuum stage of carbon bed regeneration.

(i) *Baseline vacuum pressure for carbon bed regeneration.* The procedures in this paragraph shall be used to demonstrate the baseline vacuum pressure for the vacuum stage of carbon bed regeneration required in § 63.563(b)(6) for a carbon adsorber and to monitor the vacuum pressure as required in § 63.564(g). The owner or operator shall establish the baseline vacuum pressure as the manufacturer recommended minimum vacuum for carbon bed regeneration.

(j) *Baseline total stream flow.* The procedures in this paragraph shall be used to demonstrate the baseline total stream flow for steam regeneration required in § 63.563(b)(6) for a carbon adsorber and to monitor the total stream flow as required in § 63.564(g). The owner or operator shall establish the baseline stream flow as the manufacturer recommended minimum total stream flow for carbon bed regeneration.

(k) *Baseline L/V ratio.* The procedures in this paragraph shall be used to

determine the baseline L/V ratio required in § 63.563(b)(8) for an absorber and to monitor the L/V ratio as required in § 63.564(i). The owner or operator shall comply with either paragraph (k)(1) or (2) of this section.

(1) *Baseline L/V ratio from performance test.* The owner or operator shall establish the baseline L/V ratio as the calculated value of the inlet liquid flow divided by the inlet gas flow to the absorber averaged over three test runs using the procedures in paragraph (d) of this section.

(2) *Baseline L/V ratio from manufacturer.* The owner or operator shall establish the baseline L/V ratio as the manufacturer recommended minimum L/V ratio for absorber operation.

(l) *Emission estimation procedures.* For sources with emissions less than 10 or 25 tons and sources with emissions of 10 or 25 tons, the owner or operator shall calculate an annual estimate of HAP emissions, excluding commodities exempted by § 63.560(d), from marine tank vessel loading operations. Emission estimates and emission factors shall be based on test data, or if test data is not available, shall be based on measurement or estimating techniques generally accepted in industry practice for operating conditions at the source.

(m) *Alternate test procedures.*

(1) Alternate test procedures to those described in this section may be used upon application to, and approval by, the Administrator.

(2) If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified, the owner or operator shall refrain from conducting the performance test until the Administrator approves the use of the alternative method when the Administrator approves the site-specific test plan (if review of the site-specific test plan is requested) or until after the alternative method is approved (see § 63.7(f) of subpart A of this part). If the Administrator does not approve the site-specific test plan (if review is requested) or the use of the alternative method, within 30 days before the test is scheduled to begin, the performance test dates specified in § 63.563(b)(1) shall be extended such that the owner or operator shall conduct the performance test within 60 calendar days after the Administrator approves the site-specific test plan or after use of the alternative method is approved. Notwithstanding the requirements in the preceding two sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she

subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

§ 63.566 Construction and reconstruction.

(a) The owner or operator of an affected source shall fulfill all requirements for construction or reconstruction of a source in § 63.5 of subpart A of this part in accordance with the provisions for applicability of subpart A to this subpart in Table 1 of § 63.560 and construction or reconstruction requirements in this section.

(b) (1) *Application for approval of construction or reconstruction.* The provisions of this paragraph and § 63.5(d)(1)(ii) and (iii), (2), (3), and (4) of subpart A implement section 112(i)(1) of the Act.

(2) *General application requirements.* An owner or operator who is subject to the requirements of § 63.5(b)(3) of subpart A shall submit to the Administrator an application for approval of the construction of a new source, the reconstruction of a source, or the reconstruction of a source not subject to the emissions standards in § 63.562 such that the source becomes an affected source. The application shall be submitted as soon as practicable before the construction or reconstruction is planned to commence. The application for approval of construction or reconstruction may be used to fulfill the initial notification requirements of § 63.567(b)(3). The owner or operator may submit the application for approval well in advance of the date construction or reconstruction is planned to commence in order to ensure a timely review by the Administrator and that the planned commencement date will not be delayed.

(c) *Approval of construction or reconstruction based on prior State preconstruction review.* The owner or operator shall submit to the Administrator the request for approval of construction or reconstruction under this paragraph and § 63.5(f)(1) of subpart A of this part no later than the application deadline specified in paragraph (b)(2) of this section. The owner or operator shall include in the request information sufficient for the Administrator's determination. The Administrator will evaluate the owner or operator's request in accordance with the procedures specified in § 63.5(e) of subpart A of this part. The Administrator may request additional relevant information after the submittal of a request for approval of construction or reconstruction.

§ 63.567 Recordkeeping and reporting requirements.

(a) The owner or operator of an affected source shall fulfill all reporting and recordkeeping requirements in §§ 63.9 and 63.10 of subpart A of this part in accordance with the provisions for applicability of subpart A to this subpart in Table 1 of § 63.560 and fulfill all reporting and recordkeeping requirements in this section. These reports will be made to the Administrator at the appropriate address identified in § 63.13 of subpart A of this part.

(1) Reports required by subpart A and this section may be sent by U.S. mail, facsimile (fax), or by another courier.

(i) Submittals sent by U.S. mail shall be postmarked on or before the specified date.

(ii) Submittals sent by other methods shall be received by the Administrator on or before the specified date.

(2) If acceptable to both the Administrator and the owner or operator of a source, reports may be submitted on electronic media.

(b) *Notification requirements.* The owner or operator of an affected source shall fulfill all notification requirements in § 63.9 of subpart A of this part in accordance with the provisions for applicability of that section to this subpart in Table 1 of § 63.560 and the notification requirements in this paragraph.

(1) *Applicability.* If a source that otherwise would not be subject to the emissions standards subsequently increases its HAP emissions calculated on a 24-month annual average basis after September 19, 1997 or increases its annual HAP emissions after September 20, 1999 or subsequently increases its gasoline or crude loading throughput calculated on a 24-month annual average basis after September 19, 1996 or increases its gasoline or crude loading annual throughput after September 21, 1998 such that the source becomes subject to the emissions standards, such source shall be subject to the notification requirements of § 63.9 of subpart A of this part and the notification requirements of this paragraph.

(2) *Initial notification for sources with startup before the effective date.* The owner or operator of a source with initial startup before the effective date shall notify the Administrator in writing that the source is subject to the relevant standard. The notification shall be submitted not later than 365 days after the effective date of the emissions standards and shall provide the following information:

(i) The name and address of the owner or operator;

(ii) The address (i.e., physical location) of the source;

(iii) An identification of this emissions standard that is the basis of the notification and the source's compliance date;

(iv) A brief description of the nature, size, design, and method of operation of the source;

(v) A statement that the source is a major source.

(3) *Initial notification for sources with startup after the effective date.* The owner or operator of a new or reconstructed source or a source that has been reconstructed such that it is subject to the emissions standards that has an initial startup after the effective date but before the compliance date, and for which an application for approval of construction or reconstruction is not required under § 63.5(d) of subpart A of this part and § 63.566 of this subpart, shall notify the Administrator in writing that the source is subject to the standard no later than 365 days or 120 days after initial startup, whichever occurs before notification of the initial performance test in § 63.9(e) of subpart A of this part. The notification shall provide all the information required in paragraph (b)(2) of this section, delivered or postmarked with the notification required in paragraph (b)(4) of this section.

(4) *Initial notification requirements for constructed/reconstructed sources.* After the effective date of these standards, whether or not an approved permit program is effective in the State in which a source subject to these standards is (or would be) located, an owner or operator subject to the notification requirements of § 63.5 of subpart A of this part and § 63.566 of this subpart who intends to construct a new source subject to these standards, reconstruct a source subject to these standards, or reconstruct a source such that it becomes subject to these standards, shall comply with paragraphs (b)(4)(i), (ii), (iii), and (iv) of this section.

(i) *Notify the Administrator in writing of the intended construction or reconstruction.* The notification shall be submitted as soon as practicable before the construction or reconstruction is planned to commence. The notification shall include all the information required for an application for approval of construction or reconstruction as specified in § 63.5 of subpart A of this part. The application for approval of construction or reconstruction may be used to fulfill the requirements of this paragraph.

(ii) Submit a notification of the date when construction or reconstruction

was commenced, delivered or postmarked not later than 30 days after such date, if construction was commenced after the effective date.

(iii) Submit a notification of the anticipated date of startup of the source, delivered or postmarked not more than 60 days nor less than 30 days before such date;

(iv) Submit a notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(5) *Additional initial notification requirements.* The owner or operator of sources subject to § 63.562(b)(2), (3), and (4), MACT standards, shall also include in the initial notification report required by paragraph (b)(2) and (3) the 24-month annual average or the annual actual HAP emissions from marine tank vessel loading operations, as appropriate, at all loading berths, as calculated according to the procedures in § 63.565(f). Emissions will be reported by commodity and type of marine tank vessel (barge or tanker) loaded.

(ii) As an alternative to reporting the information in paragraph (b)(5)(i) of this section, the source may submit documentation showing that all HAP-containing marine tank vessel loading operations, not exempt by § 63.560(d), occurred using vapor tight vessels that comply with the procedures of § 63.563(a) and that the emissions were routed to control devices meeting the requirements specified in § 63.563(b).

(c) *Request for extension of compliance.* If the owner or operator has installed BACT or technology to meet LAER consistent with § 63.6(i)(5) of subpart A of this part, he/she may submit to the Administrator (or State with an approved permit program) a request for an extension of compliance as specified in § 63.6(i)(4)(i)(B), (i)(5), and (i)(6) of subpart A of this part.

(d) *Reporting for performance testing of flares.* The owner or operator of a source required to conduct an opacity performance test shall report the opacity results and other information required by § 63.565(e) and § 63.11 of subpart A of this part with the notification of compliance status.

(e) *Summary reports and excess emissions and monitoring system performance reports.*

(1) *Schedule for summary report and excess emissions and monitoring system performance reports.* Excess emissions and parameter monitoring exceedances are defined in § 63.563(b). The owner or operator of a source subject to these emissions standards that is required to install a CMS shall submit an excess emissions and continuous monitoring system performance report and/or a

summary report to the Administrator once each year, except, when the source experiences excess emissions, the source shall comply with a semi-annual reporting format until a request to reduce reporting frequency under paragraph (e)(2) of this section is approved.

(2) *Request to reduce frequency of excess emissions and continuous monitoring system performance reports.* An owner or operator who is required to submit excess emissions and continuous monitoring system performance and summary reports on a semi-annual basis may reduce the frequency of reporting to annual if the following conditions are met:

(i) For 1 full year the sources's excess emissions and continuous monitoring system performance reports continually demonstrate that the source is in compliance; and

(ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and subpart A of this part.

(3) The frequency of reporting of excess emissions and continuous monitoring system performance and summary reports required may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the 5-year recordkeeping prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation maintenance requirements. Such information may be used by the Administrator to make a judgement about the source's potential for noncompliance in the future. If the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(4) *Content and submittal dates for excess emissions and monitoring system performance reports.* All excess emissions and monitoring system performance reports and all summary reports, if required per paragraph (e)(5) and (6) of this section, shall be delivered or postmarked within 30 days following

the end of each calendar year, or within 30 days following the end of each six month period, if appropriate. Written reports of excess emissions or exceedances of process or control system parameters shall include all information required in § 63.10(c)(5) through (13) of subpart A of this part as applicable in Table 1 of § 63.560 and information from any calibration tests in which the monitoring equipment is not in compliance with PS 8 or other methods used for accuracy testing of temperature, pressure, or flow monitoring devices. The written report shall also include the name, title, and signature of the responsible official who is certifying the accuracy of the report. When no excess emissions or exceedances have occurred or monitoring equipment has not been inoperative, repaired, or adjusted, such information shall be stated in the report. This information will be kept for a minimum of 5 years and made readily available to the Administrator or delegated State authority upon request.

(5) If the total duration of excess emissions or control system parameter exceedances for the reporting period is less than 5 percent of the total operating time for the reporting period, and CMS downtime for the reporting period is less than 10 percent of the total operating time for the reporting period, only the summary report of § 63.10(e)(3)(vi) of subpart A of this part shall be submitted, and the full excess emissions and continuous monitoring system performance report of paragraph (e)(4) of this section need not be submitted unless required by the Administrator.

(6) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is 5 percent or greater of the total operating time for the reporting period, or the total CMS downtime for the reporting period is 10 percent or greater of the total operating time for the reporting period, both the summary report of § 63.10(e)(3)(vi) of subpart A of this part and the excess emissions and continuous monitoring system performance report of paragraph (e)(4) of this section shall be submitted.

(f) *Vapor collection system of the terminal.* Each owner or operator of an affected source shall submit with the initial performance test and maintain in an accessible location on site an engineering report describing in detail the vent system, or vapor collection system, used to vent each vent stream to a control device. This report shall include all valves and vent pipes that could vent the stream to the atmosphere, thereby bypassing the

control device, and identify which valves are car-sealed opened and which valves are car-sealed closed.

(g) If a vent system, or vapor collection system, containing valves that could divert the emission stream away from the control device is used, each owner or operator of an affected source shall keep for at least 5 years up-to-date, readily accessible continuous records of:

(1) All periods when flow bypassing the control device is indicated if flow indicators are installed under § 63.563(a)(1) and § 63.564(b), and

(2) All times when maintenance is performed on car-sealed valves, when the car-seal is broken, and when the valve position is changed (i.e., from open to closed for valves in the vent piping to the control device and from closed to open for valves that vent the stream directly or indirectly to the atmosphere bypassing the control device) if valves are monitored under § 63.564(b).

(h) The owner or operator of an affected source shall keep the vapor-tightness documentation required under § 63.563(a)(4) on file at the source in a permanent form available for inspection.

(i) *Vapor tightness test documentation for marine tank vessels.* The owner or operator of an affected source shall maintain a documentation file for each marine tank vessel loaded at that source to reflect current test results as determined by the appropriate method in § 63.565(c)(1) and (2). Updates to this documentation file shall be made at least once per year. The owner or operator shall include, as a minimum, the following information in this documentation:

(1) Test title;
(2) Marine vessel owner and address;
(3) Marine vessel identification number;

(4) Loading time, according to § 63.563(a)(4)(ii) or (iii), if appropriate;
(5) Testing location;
(6) Date of test;

(7) Tester name and signature;
(8) Test results from § 63.565(c)(1) or (2), as appropriate;

(9) Documentation provided under § 63.563(a)(4)(ii) and (iii)(B) showing that the repair of leaking components attributed to a failure of a vapor-tightness test is technically infeasible without dry-docking the vessel; and
(10) Documentation that a marine tank vessel failing a pressure test or leak test has been repaired.

(j) *Emission estimation reporting and recordkeeping procedures.* The owner or operator of each source complying with the emission limits specified in § 63.562(b)(2), (3), and (4) shall comply with the following provisions:

(1) Maintain records of all measurements, calculations, and other documentation used to identify commodities exempted under § 63.560(d);

(2) Keep readily accessible records of the emission estimation calculations performed in § 63.565(l) for 5 years; and

(3) Submit an annual report of the source's HAP control efficiency calculated using the procedures specified in § 63.565(l), based on the source's actual throughput.

(4) Owners or operators of marine tank vessel loading operations specified in § 63.560(a)(3) shall retain records of the emissions estimates determined in § 63.565(l) and records of their actual throughputs by commodity, for 5 years.

(k) *Leak detection and repair of vapor collection systems and control devices.* When each leak of the vapor collection system, or vapor collection system, and control device is detected and repaired as specified in § 63.563(c) the following information required shall be maintained for 5 years:

(1) Date of inspection;
(2) Findings (location, nature, and severity of each leak);
(3) Leak determination method;
(4) Corrective action (date each leak repaired, reasons for repair interval); and

(5) Inspector name and signature.

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DEPARTMENT OF HEALTH AND HUMAN SERVICES

Health Care Financing Administration

42 CFR Parts 405 and 411

[BPD-841-FC]

RIN 0938-AH21

Medicare Program; Criteria and Procedures for Extending Coverage to Certain Devices and Related Services

AGENCY: Health Care Financing Administration (HCFA), HHS.

ACTION: Final rule with comment period.

SUMMARY: This final rule establishes in regulations that certain devices with an investigational device exemption (IDE) approved by the Food and Drug Administration (FDA) and certain services related to those devices may be covered under Medicare. Specifically, it sets forth the process by which the FDA will assist HCFA in identifying non-experimental investigational devices that are potentially covered under Medicare.

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 9 and 63

[AD-FRL-5273-9]

RIN 2060-AE02

National Emission Standards for Hazardous Air Pollutants for Source Categories: Aerospace Manufacturing and Rework Facilities

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: National emission standards for hazardous air pollutants (NESHAP) for aerospace manufacturing and rework facilities were proposed in the Federal Register on June 6, 1994. This Federal Register action announces the EPA's final decisions on the rule and promulgates the NESHAP for aerospace manufacturing and rework facilities. Aerospace manufacturing and rework operations emit many of the pollutants identified in the Clean Air Act (Act) list of 189 hazardous air pollutants (HAP). The intent of the standards is to protect public health by requiring existing and new major sources to control emissions to the level achievable by the maximum achievable control technology (MACT) consistent with section 112(d) of the Act.

The HAP listed in Section 112(b)(1) emitted by aerospace facilities that would be covered by this final rule include, chromium, cadmium, methylene chloride, toluene, xylene, methyl ethyl ketone, ethylene glycol and glycol ethers. This rule will reduce nationwide emissions of HAP from at least 2,869 major source aerospace manufacturing and rework facilities by approximately 112,600 Mg (123,700 tons).

DATES: This regulation is effective on September 1, 1995. The incorporation by reference of certain publications listed in the regulation is approved by the Office of the Federal Register as of September 1, 1995. See the SUPPLEMENTARY INFORMATION section concerning judicial review.

ADDRESSES: *Background Information Document.* The background information document (BID) for the promulgated standards may be obtained from the U.S. Department of Commerce, National Technical Information Service (NTIS), Springfield, Virginia 22161, telephone (703) 487-4650. Please refer to "Hazardous Air Pollutant Emissions from Aerospace Manufacturing and Rework Operations—Background Information for Promulgated Standards" (EPA-453/R-94-036b). The BID contains: (1) a summary of all the public comments made on the proposed standards and the Administrator's responses to the comments, and (2) a summary of the changes made to the standards since proposal.

An electronic version of the promulgation BID as well as this preamble and final rule are available for download from the EPA's Technology Transfer Network (TTN), a network of electronic bulletin boards developed and operated by the Office of Air Quality Planning and Standards. The TTN provides information and technology exchange in various areas of air pollution control. The service is free, except for the cost of a phone call. Dial (919) 541-5742 for data transfer of up to a 14,400 bits per second (bps) modem. If more information on the TTN is needed, contact the systems operator at (919) 541-5384.

Docket. Docket No. A-92-20, containing supporting information used in developing the promulgated standards, is available for public inspection and copying from 8 a.m. to 4 p.m., Monday through Friday, including all non-Government holidays, at the EPA's Air and Radiation Docket and Information Center (formerly known as the Air Docket), Waterside Mall, room M-1500, Ground Floor, 401 M Street, S.W., Washington, DC 20460; telephone (202) 260-7548. A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: For general or technical information concerning the standards, contact Ms. Vickie Boothe, Emission Standards Division (MD-13), U.S. Environmental Protection Agency, Research Triangle

Park, North Carolina 27711; telephone (919) 541-0164.

SUPPLEMENTARY INFORMATION: Under section 307(b)(1) of the Act, judicial review of NESHAP is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days of today's publication of this final rule. Under section 307(b)(2) of the Act, the requirements that are the subject of today's notice may not be challenged later in civil or criminal proceedings brought by the EPA to enforce these requirements. The information presented in this preamble is organized as follows:

- I. The Standards
- II. Summary of Considerations in Developing the Rule
 - A. Purpose of Regulation
 - B. Summary of Impacts
- III. Significant Changes to the Proposed Standards
 - A. Public Participation
 - B. Comments on the Proposed Standards
 - C. Significant Changes
- IV. Administrative Requirements
 - A. Docket
 - B. Paperwork Reduction Act
 - C. Executive Order 12868
 - D. Regulatory Flexibility Act
 - E. Regulatory Review
 - F. Unfunded Mandate Act

I. The Standards

National emission standards for hazardous air pollutants established under section 112 of the Act must reflect the maximum degree of reduction in emissions of the hazardous air pollutants subject to this section (including a prohibition on such emissions, where achievable) that the Administrator, taking into consideration the cost of achieving such emission reduction, and any nonair quality health and environmental impacts and energy requirements, determines is achievable for new or existing sources in the category or subcategory to which such emission standard applies... [section 112(d)(2)].

The promulgated standards include multiple alternatives to allow owners or operators maximum compliance flexibility. A summary of the final standards is contained in Table 1.

TABLE 1. SUMMARY OF SUBPART GG OF 40 CFR PART 63—NATIONAL EMISSION STANDARDS FOR AEROSPACE MANUFACTURING AND REWORK FACILITIES

Affected Source and Requirement	Description
Aerospace Facilities	
Applicability:	
General Information	This rule applies to facilities engaged in original equipment manufacture and/or rework of aerospace components and assemblies and that are major sources as defined in 40 CFR part 63. Specific operations are covered by the rule. (63.741)
Estimated Number of Facilities.	Over 2,800 facilities are expected to be affected by the rule. Applicable SIC codes include 3720, 3721, 3724, 3728, 3760, 3781, 3764, 3765, and 4581.

TABLE 1. SUMMARY OF SUBPART GG OF 40 CFR PART 63—NATIONAL EMISSION STANDARDS FOR AEROSPACE MANUFACTURING AND REWORK FACILITIES—Continued

Affected Source and Requirement	Description
Permit Requirements	Major sources required to obtain operating permit in State where facility is located according to procedures in 40 CFR part 70 and applicable State regulations. (63.741(d))
All Affected Sources	
Standards	1. Comply with §63.4 through §63.6 of the General Provisions of 40 CFR part 63, subpart A. (63.743(a)) 2. Submit an operation and maintenance plan, except for new sources or filter systems operated per manufacturer's instructions. (63.743(b)) 3. Obtain approval to use control device not listed in this subpart. (63.743(c))
Compliance Dates	As provided for in the General Provisions, within 3 years after the effective date for existing sources and no later than the standards' effective date or upon startup, as appropriate, for new and reconstructed sources. (63.749(a))
Test Methods and Procedures.	See individual affected sources. Also, comply with §63.7 of the General Provisions. (63.750(o))
Monitoring Requirements	See individual affected sources. Also, generally same as in §63.8(f) and (g) of the General Provisions. (63.751(e) and (f))
Recordkeeping Requirements.	Comply with parts of §63.10 of the General Provisions. (63.752(a))
Reporting Requirements	1. See individual affected sources. Comply with parts of §63.9 and §63.10 of the General Provisions. Semiannual reports or annual if compliant. (63.753(a)(1) and (3)) 2. Operating permit application can be used for initial notification. (63.753(a)(2))
Cleaning Operations:	
Standards	Housekeeping measures for all cleaning operations at a facility subject to this subpart. Measures address placing solvent laden cloth or paper in closed containers, storing fresh and used cleaning solvent in closed containers, and minimizing spills during handling and transfer. (63.744(a))
Test Methods and Procedures.	See individual affected sources.
Monitoring Requirements	See individual affected sources.
Recordkeeping Requirements.	The name and vapor pressure of each cleaning solvent, and supporting documentation. (63.752(b)(1))
Hand-Wipe Cleaning Operations:	
Standards	1. Except for spray gun and flush cleaning, all HAP or VOC hand-wipe cleaning solvents must meet a composition requirement, have a vapor pressure less than 45 mm Hg at 20°C, or meet the requirements specified in an alternative compliance plan administered by the permitting authority and approved under Section 112(i) of the Clean Air Act. (63.744(b)) 2. List of cleaning operations exempt from composition and vapor pressure requirements. (63.744(e))
Test Methods and Procedures.	1. Composition determination through manufacturer's data. (63.750(a)) 2. Vapor pressure determination through readily available sources if single component; ASTM E 260-91 and composite vapor pressure determination procedure for multiple component solvents. (63.750(b))
Monitoring Requirements	None.
Recordkeeping Requirements.	1. If complying with composition requirements, name, data/calculations, and annual volumes. (63.752(b)(2)) 2. If complying with vapor pressure limit, the name, vapor pressure, data/calculations/test results, and monthly volumes. (63.752(b)(3)) 3. For noncompliant cleaning solvents used in exempt operations, monthly volumes by operation, and master list of processes. (63.752(b)(4))
Reporting Requirements	<i>Semiannual</i> 1. Noncompliant solvent usage. (63.753(b)(1)(ii)) 2. New solvents and vapor pressure or composition. (63.753(b)(1)(iii))
Hand-Wipe Cleaning Operations (cont.)	
Reporting Requirements (cont.)	
3. Statement certifying everything is in compliance. (63.753(b)(2))	
Spray Gun Cleaning:	
Standards	1. Use one of four specified techniques or an equivalent. (63.744(c)) 2. For enclosed spray gun cleaners, repair as soon as practicable, but within 15 days. (63.744(c)(1)(ii))
Test Methods and Procedures.	None.
Monitoring Requirements	Visual inspection for leaks at least once per month. (63.751(a))
Recordkeeping Requirements.	Record all leaks, including source identification and dates leaks found and repaired. (63.752(b)(5))
Reporting Requirements	<i>Semiannual</i> 1. Noncompliant spray gun cleaning method used. (63.753(b)(1)(iii)) 2. Leaks of enclosed spray gun cleaners not repaired within 15 days of detection. (63.753(b)(1)(iv)) 3. Statement certifying everything is in compliance. (63.753(b)(1)(v))
Flush Cleaning:	
Standards	Operating procedures specify emptying into enclosed container, collection system, or equivalent. (63.744(d)) Flush Cleaning (cont.)
Test Methods and Procedures.	None.

TABLE 1. SUMMARY OF SUBPART GG OF 40 CFR PART 63—NATIONAL EMISSION STANDARDS FOR AEROSPACE MANUFACTURING AND REWORK FACILITIES—Continued

Affected Source and Requirement	Description
Monitoring Requirements	None.
Recordkeeping Requirements.	None.
Reporting Requirements	Semiannual
Primer and Topcoat Application Operations:	Statement certifying everything is in compliance. (63.753(b)(2))
Standards	Minimize spills during handling and transfer. (63.745(b)) <i>Uncontrolled Primers</i> 1. Organic HAP content limit: 350 g/l (2.9 lb/gal) (less water) as applied. (63.745(c)(1)) 2. VOC content limit: 350 g/l (2.9 lb/gal) (less water and exempt solvents) as applied. (63.745(c)(2)) 3. Achieve compliance through: (1) use coatings below content limits, or (2) use monthly volume-weighted averaging to meet content limits. (63.745(e)) <i>Uncontrolled Topcoats</i> 4. Organic HAP content limit: 420 g/l (3.5 lb/gal) (less water) as applied. (63.745(c)(3)) 5. VOC content limit: 420 g/l (3.5 lb/gal) (less water and exempt solvents). (63.745(c)(4)) 6. Achieve compliance as in 3. above. (63.745(e)) <i>Controlled Primers and Topcoats</i> 7. If control system is used, must be designed to capture and control all emissions from the application operation and must achieve an overall control efficiency of at least 81%. (63.745(d)) <i>All Primers and Topcoats</i> 8. Specific application techniques must be used. If alternative is sought, can only be used if emissions are less than or equal to HVLP or electrostatic spray application techniques. (63.745(f)(1)) 9. All application equipment must be operated according to manufacturer's specifications, company procedures, or locally specified operating procedures. (63.745(f)(2)) 10. Exemptions from No. 8 above provided for in certain situations. (63.745(f)(3)) 11. Operating requirements for the application of primers or topcoats that contain inorganic HAP, including control with either particulate filters or waterwash, and shutdown if operated outside manufacturer's specified limits. (63.745(g)(1) through (3)) 12. Exemptions from No. 11 provided for certain application operations. (63.745(g)(4))
Performance Test Periods and Tests.	1. For "compliant" coatings: each 30-day period. For "averaged" coatings: each 30-day period. For "controlled" coatings, non-carbon adsorber: three 1-hour runs. For "controlled" coatings, carbon adsorber: each rolling period. (63.749(e)(1)) 2. Initial performance test for all control devices to demonstrate compliance with overall control efficiency requirement. (63.749(e)(2))
Test Methods and Procedures.	1. Organic HAP level determination procedures. (63.750(c) and (d)) 2. VOC level determination procedures. (63.750(e) and (f)) 3. Overall control efficiency of carbon adsorber system determined using provided procedures; for other control devices, determine capture efficiency and destruction efficiency. For capture efficiency, use Procedure T in Appendix B to 40 CFR 52.741 for total enclosures and 40 CFR 52.741(a)(4)(iii) procedures for all other enclosures. (63.750(g) and (h)) 4. For alternative application methods, first determine emission levels for initial 30-day period or five aircraft using only HVLP or electrostatic, or a time period specified by the permitting agency. Then use alternative application method for period of time necessary to coat equivalent amount of parts with same coatings. Alternative application method may be used when emissions generated during the test period are less than or equal to the emissions generated during the initial 30-day period or five aircraft. Dried film thickness must be within specification for initial 30-day period or five aircraft as demonstrated under actual production conditions. (63.750(i))
Monitoring Requirements	1. Temperature sensors with continuous recorders for incinerators, and install, calibrate, maintain, and operate temperature monitors according to manufacturer's specifications. Use CEMS as an alternative. (63.751(b)) 2. Continuously monitor pressure drop across filter or water flow rate through waterwash. (63.751(c))
Recordkeeping Requirements.	1. Name and VOC content for all primers and topcoats. If coating contains exempt solvents, calculate total HAP content. (63.752(c)(1)) 2. For "compliant" coatings, organic HAP and VOC contents as applied, data/calculations or Method 24 used to determine them, and monthly usage. (63.752(c)(2)) 3. For "low-HAP/VOC" primers, annual purchase records, and data/calculations or Method 24 used to determine H_a. (63.752(c)(3)) 4. For "averaged" coatings, monthly values of VOC content (H_a and G_a), and data/calculations or Method 24 used to calculate H_a and G_a. (63.752(c)(4)) 5. For "controlled" coatings (incinerator), overall control efficiency and incinerator temperature(s). (63.752(c)(5)) 6. For "controlled" coatings (carbon adsorber), overall control efficiency and length of rolling period and all supporting data/calculations. (63.752(c)(6)) 7. Pressure drop across filter or water flow rate through waterwash once per shift, and acceptable limits. (63.752(d) (1) through (3)) 8. For new sources with chromated coatings, documentation that filters meet multistage or HEPA requirements. (63.752(d)(4))
Reporting Requirements	Semiannual

TABLE 1. SUMMARY OF SUBPART GG OF 40 CFR PART 63—NATIONAL EMISSION STANDARDS FOR AEROSPACE MANUFACTURING AND REWORK FACILITIES—Continued

Affected Source and Requirement	Description
	1. All instances where organic HAP/VOC limits were exceeded. (63.753(c)(1)(i), (ii), and (viii)) 2. Control device exceedances (out-of-compliance). (63.753(c)(1)(iii), (iv), and (v)) 3. Periods when operation not immediately shut down due to pressure drop or water flow rate being out-side limits. (63.753(c)(1)(vi)) 4. Statement certifying everything is in compliance. (63.753(c)(vii))
Depainting Operations:	Annual
Applicability	5. Number of times the pressure drop or water flow rate limits were exceeded. (63.753(c)(2))
Standards	Applies to the outer surface of aerospace vehicles. Does not apply to parts or units normally removed. Fuselage, wings, and stabilizers always covered. Radomes, parts normally removed are exempt. (63.746(a))
	1. Unless exempted, no organic HAP are to be emitted from chemical strippers or softeners. (63.746(b)(1))
	2. Minimize inorganic HAP emissions during periods of non-chemical based equipment malfunction. (63.746(b)(2))
	3. Use of organic HAP-containing strippers for spot stripping and decal removal limited to 25 gallons per aircraft per year for commercial aircraft and 50 gallons per aircraft per year for military aircraft. (63.746(b)(3))
	4. Operating requirements for depainting operations generating airborne inorganic HAP, including control with particulate filters or waterwash systems. Mechanical and hand sanding are exempt. (63.746(b)(4) and (b)(5))
	5. Non-exempt organic HAP emissions controlled at 81% efficiency for systems installed before effective date. For newer systems, control at 95%. (63.746(c))
Performance Test Periods and Tests.	1. For demonstrating no organic HAP emissions: each 24-hour period. (63.749(g)(1))
	2. For spot stripping and decal removal usage limits: each calendar year. (63.749(g)(1))
	3. Initial performance test for all control devices to demonstrate compliance with overall control efficiency requirement. (63.749(g)(1), (g)(2), and (g)(3))
Test Methods and Procedures.	1. Procedures provided for determining gallons of HAP-containing stripper used for aircraft. (63.750(j))
	2. Overall control efficiency of carbon adsorber system determined using specified procedures; for other control devices, determine capture efficiency and destruction efficiency. For capture efficiency, use Procedure T in Appendix B to 40 CFR 52.741 for total enclosures and 40 CFR 52.741(a)(4)(ii) procedures for all other enclosures. (63.750(g) and (h))
Monitoring Requirements	Continuously monitor pressure drop across filter or water flow rate through waterwash. (63.751(d))
Recordkeeping Requirements.	1. Name and monthly volume of all organic HAP-containing chemical strippers. (63.752(e)(1))
	2. For controlled chemical strippers (carbon adsorber), overall control efficiency and length of rolling period and all supporting data/calculations. (63.752(e)(2))
	3. For controlled chemical strippers (other control devices), overall control efficiency and supporting documentation. (63.752(e)(3))
	4. List of parts/assemblies normally removed. (63.752(e)(4))
Recordkeeping Requirements.	5. For non-chemical based equipment, name and type, and malfunction information including dates, description, and alternative methods used. (63.752(e)(5))
	6. For spot stripping and decal removal, annual volume used, annual average volume per aircraft, and all data/calculations used to calculate volume per aircraft. (63.752(e)(6))
	7. Pressure drop across filter or water flow rate through waterwash once per shift and acceptable limits. (63.752(e)(7))
Reporting Requirements	Semiannual
	1. 24-hour periods where organic HAP were emitted from depainting operations in violation of rule. (63.753(d)(1)(i))
	2. New and reformulated chemical strippers and HAP contents. (63.753(d)(1)(ii), (iii), and (iv))
	3. New non-chemical based depainting techniques. (63.753(d)(1)(v))
	4. Malfunction information on non-chemical based techniques including dates, description, and alternative methods used. (63.753(d)(1)(vi))
	5. Periods when operation not immediately shut down due to pressure drop or water flow rate being out-side limits. (63.753(d)(1)(vii))
	6. List of new/discontinued aircraft models and, for new models, list of parts normally removed for depainting. (63.753(d)(1)(viii))
	7. Organic HAP control device exceedances. (63.753(d)(3))
	8. Statement certifying everything is in compliance. (63.753(d)(2)(ii))
	Annual
	9. Exceedances of average annual volume limits for spot stripping and decal removal. (63.753(d)(2)(i))
	10. Number of times the pressure drop or water flow rate limits were exceeded. (63.753(d)(2)(iii))
Chemical Milling Maskant Application Operations:	
Applicability	Applies only to operations using Type II chemical milling etchants. (63.747(a))
Standards	Minimize spills during handling and transfer. (63.747(b))
	Uncontrolled Maskants

TABLE 1. SUMMARY OF SUBPART GG OF 40 CFR PART 63—NATIONAL EMISSION STANDARDS FOR AEROSPACE MANUFACTURING AND REWORK FACILITIES—Continued

Affected Source and Requirement	Description
	1. Organic HAP emissions: ≤ 160 g/l (1.3 lb/gal) (less water) as applied. (63.747(c)(1)) 2. VOC emissions: ≤ 160 g/l (1.3 lb/gal) (less water and exempt solvents) as applied. (63.747(c)(2)) 3. Achieve compliance through: (1) use maskants below content limits, or (2) use monthly volume-weighted averaging to meet content limits. (63.747(e)) Controlled Maskants 4. If control device is used, system must be designed to capture and control all emissions from maskant operation and must achieve an overall control efficiency of at least 81% for systems installed before effective date. For new systems, control at 95%. (63.747(d)) 1. For compliant maskants: each 30-day period. For averaged maskants: each 30-day period. For controlled coatings, carbon adsorber: each rolling period. For controlled coatings, non-carbon adsorber: three 1-hour runs. (63.749(f)(1)) 2. Initial performance test required for all control devices to demonstrate compliance with overall control efficiency requirement. (63.749(f)(2) and (f)(3)) Procedures provided essentially identical to those for primers and topcoats for organic HAP and VOC content levels. (63.750 (g), (h), and (k)-(n)) Same as for primers and topcoats if incinerators are used. (63.751(b)) Same as for primers and topcoats. (63.752(f))
Performance Test Periods and Tests.	
Test Methods and Procedures.	
Monitoring Requirements	
Recordkeeping Requirements.	
Reporting Requirements	<i>Semiannual</i> 1. Exceedances of organic HAP/VOC limits. (63.753(e)(1), (2) and (7)) 2. Control device exceedances (out of compliance). (63.753(e)(3)) 3. New maskants. (63.753(e)(4)) 4. New control devices. (63.753(e)(5)) 5. Everything is in compliance. (63.753(e)(6))
Waste Handling and Storage Operations:	
Standards	Minimize spills during handling and transfer. (63.748)
Test Methods and Procedures.	None.
Monitoring Requirements	None.
Recordkeeping Requirements.	None.
Reporting Requirements	None.

*The EPA promulgated regulations for subpart A of 40 CFR part 63, which were published in the Federal Register on March 16, 1994 at 59 FR 12408.

Section 114(a)(3) of the Act requires enhanced monitoring and compliance certifications of all major stationary sources. The annual compliance certifications certify whether compliance has been continuous or intermittent. Enhanced monitoring shall be capable of detecting deviations from each applicable emission limitation or standard with sufficient representativeness, accuracy, precision, reliability, frequency, and timeliness to determine if compliance is continuous during a reporting period. The monitoring in this regulation satisfies the requirements of enhanced monitoring.

Owners or operators of all commercial, civil, or military aerospace original equipment manufacturing (OEM) and rework operations with an initial startup date before September 1, 1998 that are subject to the emission standards are required to achieve compliance with the control requirements of the standards within 3 years from September 1, 1995. Owners or operators of new commercial, civil, or military aerospace OEM and rework

operations with initial startup after September 1, 1998 will be required to comply with all requirements upon startup.

II. Summary of Considerations in Developing the Rule

A. Purpose of Regulation

The Act was developed, 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 its population (the Act, section 101(b)(1)).

Aerospace facilities are major sources of HAP emissions. The HAP listed in Section 112(b)(1) emitted by aerospace facilities that would be covered by this final rule include, chromium, cadmium, methylene chloride, toluene, xylene, methyl ethyl ketone, ethylene glycol and glycol ethers. All of these pollutants can cause reversible or irreversible toxic effects following exposure. The range of adverse health effects include cancer and a number of other chronic health disorders (e.g., aplastic anemia, pancytopenia, pernicious anemia, pulmonary (lung) structural changes)

and a number of acute health disorders (e.g., dyspnea (difficulty in breathing) upper respiratory tract irritation with cough, conjunctivitis, neurotoxic effects (e.g., visual blurring, tremors, delirium), unconsciousness, coma, convulsions). These adverse health effects are associated with a wide range of ambient concentrations and exposure times and are influenced by source-specific characteristics such as emission rates and local meteorological conditions. Health impacts are also dependent on multiple factors that affect human variability such as genetics, age, health status (e.g., the presence of pre-existing disease) and lifestyle.

B. Summary of Impacts

These standards will reduce nationwide emissions of HAP from at least 2,869 major source aerospace manufacturing and rework facilities by approximately 112,600 Mg (123,700 tons), or 59 percent, in 1998 compared to the emissions that would occur in the absence of the standards. No significant adverse secondary air, water, solid waste, or energy impacts are anticipated

from the promulgation of these standards.

Capital costs will be incurred due to implementation of the required control measures. The EPA performed a capital equipment cost analysis based on a 15-year equipment life and a 7 percent annual interest rate, and calculated annualized capital costs for equipment expenditures. It is estimated that implementation of this regulation will result in nationwide annual operating and equipment costs for existing aerospace manufacturing and rework facilities of \$15.3 million for control of hand-wipe and flush cleaning, \$164 million for solvent-based chemical milling maskants controlled by a carbon adsorber, \$146 million for water-reducible chemical milling maskants, \$622 million for depainting with dry media blasting (or a net savings of \$38.8 million if all affected sources use chemical strippers that contain no organic HAP), \$2.3 million for control of inorganic HAP emissions from primer and topcoat spray application, and \$7.8 million for control of inorganic HAP emissions from blast depainting operations.

Total nationwide annual costs, depending on the specific mix of control options chosen, are estimated to range from a net savings of \$49.2 million per year to a net cost of \$660 million per year. The higher cost figure shown reflects a scenario in which all affected sources use blast depainting methods rather than chemical strippers that contain no organic HAP. However, due to the high capital cost of blast depainting equipment, very few facilities are expected to use this option other than those that already own the equipment. Therefore, the EPA anticipates the total annual cost of the final rule to be approximately \$21 million.

III. Significant Changes to the Proposed Standards

A. Public Participation

Throughout the rulemaking process, the EPA sought and received information and views from a broad representation of the public on all aspects of the regulation. On May 4 and 5, July 20 and 21, and October 5 and 6, 1993, and March 7 and 8, 1995, public meetings were held to discuss results of the Agency's analysis of control options and associated impacts.

The standards were proposed and the preamble was published in the *Federal Register* on June 6, 1994 (59 FR 29216). The preamble to the proposed standards discussed the availability of the regulatory text and proposal BID, which

described the regulatory alternatives considered and the impacts of those alternatives. Public comments were solicited at the time of proposal, and copies of the regulatory text and BID were distributed to interested parties. Electronic versions of the preamble, regulation, and BID were made available to interested parties via the EPA's TTN (see ADDRESSES section of this preamble).

To provide interested persons the opportunity for oral presentation of data, views, and arguments concerning the proposed standards, a public hearing was offered at proposal. A public hearing was requested and was held August 15, 1994. Eleven industry sources presented comments at the hearing. The public comment period extended from June 6, 1994 to September 15, 1994.

In addition to the original proposal, the EPA also requested supplemental information and comment in a *Federal Register* notice on November 22, 1994 (59 FR 60101). The issues on which additional information was solicited included the level of control for chemical depainting operations, applicability to general aviation facilities, VOC and HAP content of exterior primers for commercial aircraft, the rolling material balance period for proposed EPA Method 309, regulation of chemical milling maskants used with Type I etchants, use of HEPA filters to control inorganic HAP emissions from primer and topcoat application operations, and reduced recordkeeping requirements for facilities using a 2.1 lb/gal or lower organic HAP content primer.

B. Comments on the Proposed Standards

Comments on the proposed standards and the November 22, 1994 notice were received from 57 commenters composed mainly of States, environmental groups, control device vendors, industry, and trade associations. Most of the 80 comment letters contained multiple comments. A detailed discussion of these comments and responses can be found in the promulgation BID, which is referred to in the ADDRESSES section of this preamble. The summary of comments and responses in the BID served as the basis for the revisions that have been made to the standards between proposal and promulgation. The comments have been divided into the following areas:

- (1) Clarification of and additions to rule applicability and exemptions.
- (2) Identification of the specialty coatings that are exempt from the rule.

(3) Exemption of non-HAP, non-VOC cleaning solvents from the rule requirements.

(4) Addition of organic HAP and VOC limitations for self-priming topcoats.

(5) Addition of a low-usage exemption for non-compliant primers, topcoats, and chemical milling maskants.

(6) Acceptable primer/topcoat application techniques.

(7) New source MACT for inorganic HAP control for application of chromium-containing coatings.

(8) Operating procedures for coating application equipment and inorganic HAP control systems.

(9) Monitoring requirements for organic or inorganic HAP control systems.

(10) Addition of organic HAP emission control requirements for HAP-containing chemical strippers used in depainting operations.

(11) Deletion of 99 percent control requirement and EPA Method 5 test requirement for non-chemical based depainting operations.

(12) Deletion of waste storage provision for non-RCRA HAP-containing waste because it was a duplication of RCRA requirements.

(13) Reduction in recordkeeping for exempt cleaning solvent usage from daily to monthly.

C. Significant Changes

Several changes have been made to these standards since the time they were proposed to the public. The majority of the changes have been made to clarify portions of the rule that were unclear to the commenters. Other changes to the rule were made after reviewing the data and arguments submitted by commenters. A summary of the major changes is presented below.

(1) To clarify the coverage of the NESHAP and to respond to comments requesting additional exemptions for specialized operations, several changes have been made to the rule. While major HAP sources containing any degree of aerospace activity are still covered, § 63.741 now explicitly states that only aerospace operations at these facilities are covered. This section also now clarifies that vehicles designed to operate outside the limit of the earth's atmosphere will not be covered. Further, only parts and assemblies of aerospace vehicles that are critical to structural integrity or flight performance are regulated. (This excludes non-flight items such as tray tables, etc.) Additional items and processes exempted from the final rule include aircraft transparencies, electronic parts and assemblies, research and development activities as identified in

Section 112(c)(7), and wastewater treatment operations. These items were exempted because they are currently regulated under an existing EPA regulation or will be covered in a separate NESHAP.

Comments were received requesting that cleaning solvents containing no HAP or VOC be exempted from the housekeeping and composition requirements of the standard for cleaning operations. The EPA agrees that these formulations should not be covered and has exempted them from the rule.

The inorganic HAP control requirements will not be applicable to the painting of non-operational vehicles and components meant for display purposes. Additional exemptions will be granted for the painting of specific parts that the permitting authority (through a 40 CFR part 70 permit) has determined cannot be painted in a spray booth. The EPA has deleted the proposed exemption cutoff of 4 ft²/vehicle for touch-up painting and spot stripping with chemical based paint removers, due to the difficulty of determining the exact surface areas processed on vehicles within a facility. In lieu of the exemption, a more specific definition of touch-up and repair painting has been adopted such that these operations will be easily identifiable.

Hand and mechanical sanding depainting operations have been specifically deleted from the inorganic HAP control requirements for non-chemical depainting.

For chemical milling maskant operations, the rule will continue to cover only those maskants used in Type II etchants (Type I operations exempted). The data and information received indicate that compliant maskants are not suitable for use in the Type I etchants. Touch-up maskants are also now excluded from coverage by the rule. The control techniques guideline (CTG) for aerospace operations will address all exempted maskants.

(2) Several commenters requested that the EPA clarify which specialty coatings would be exempt from the NESHAP requirements, and also asked that definitions be provided in the final rule. The EPA has added Appendix B to the rule, which includes definitions for the principal specialty coatings that have been identified. The aerospace control techniques guideline (CTG) under development by the EPA will contain recommended VOC content limits for these coatings.

(3) The housekeeping, composition, and vapor pressure requirements of the cleaning operations standard will now

not apply to cleaning solvents that do not contain any HAP or VOC. This change will clarify that non-polluting cleaners, such as plain water, will not be subject to these requirements.

(4) Self-priming topcoats have been added as a distinct subcategory of topcoats with their own HAP and VOC content limits (which are the same as for general topcoats). Commenters were concerned that the technology for these coatings could proceed at a different rate than for other topcoats, necessitating that different limits be set for the two classes of topcoats.

(5) The EPA has added a low-usage exemption to § 63.741 for non-compliant primers, topcoats, and maskants. This is expected to relieve the burden on facilities that have small usage requirements for certain non-compliant coatings that are not already exempted as "specialty coatings." This exemption allows an annual use of up to 189 l (50 gal) per separate formulation, with a combined facility cap of 757 l (200 gal) per year.

(6) Electrodeposition dip coating, a high transfer efficiency coating process, has been added to the list of acceptable application techniques in § 63.745. Additional techniques now deemed acceptable due to the difficulty of control and to their very small emissions are cotton-tipped swab application, certain airbrush applications, and use of hand-held spray (aerosol) cans.

(7) Data available on advanced filtration techniques indicate that the new source MACT control level for application of chromium-containing coatings consists of either a 3-stage filter system, high efficiency particulate air (HEPA) filters, or approved equivalent control. These control technologies will be required for spray application of chromium-containing coatings at new facilities.

(8) The proposal contained a requirement to operate coating application equipment and inorganic HAP control equipment (dry filters and waterwash systems) according to the manufacturer's specifications. To respond to comments that many manufacturers' instructions are not complete, the EPA has revised these provisions to also allow use of either the facility's own procedures or local specified operating procedures. Dry filter systems will be exempt from the requirement for a startup, shutdown, and malfunction plan. Any painting equipment modified by the facility must maintain a transfer efficiency equivalent to HVLP and electrostatic spray equipment.

(9) The proposed monitoring requirement for incinerators in § 63.751 has been revised in response to comments to allow the alternative of a CEMS in addition to the proposed requirement for a temperature monitor. The requirement to monitor the pressure drop across waterwash particulate control systems has been deleted because this would not provide an indication of performance. Instead, a means of continuously monitoring the water flow rate must be installed on the system and operated during paint application or removal operations. Once per operating shift, the operator must record the flow rate and perform a visual check of the continuity and flow characteristics of the water curtain, and then shut down the operation immediately if problems are noted and take corrective action before restarting the operation. Alternative monitoring methods may be approved if the source is infrequently operated or the alternative provides a sufficiently accurate indication of performance.

(10) A provision has been added to the final rule that allows the use of chemical strippers containing HAP when the emissions are reduced by the use of a control system (such as a carbon adsorber). Control systems installed before September 1, 1995 will be required to reduce HAP and VOC emissions by 81 percent or greater. Systems installed on or after this date must achieve a control efficiency of 95 percent or greater. These percentage reductions take into account capture and destruction or removal efficiencies, as well as the volume of chemical stripper used (i.e., a reduction in stripper usage from baseline levels will be counted as a credit in determining the effective control efficiency of the control system).

(11) The proposal contained a 99 percent particulate control requirement for dry filter systems used to control inorganic HAP emissions from depainting. Several commenters took issue with the basis for this requirement. The proposal to use EPA Method 5 to verify compliance with the requirement was also disputed on the basis that the effluent grain loading from these filter systems cannot be measured. The EPA agrees with these arguments and has deleted both the 99 percent requirement and the use of Method 5. Work practice standards have been substituted for these requirements which include maintaining the system in good working order, installing a differential pressure gauge across the filter media, and replacing the media when the pressure drop is outside of the manufacturer's recommended limits.

(12) In response to numerous comments that the proposed requirement to store all HAP-containing waste in closed containers was duplicative in light of existing RCRA requirements, the EPA has deleted this provision. However, the "housekeeping" provision requiring handling of waste so as to minimize spills has been retained in § 63.748.

(13) In response to comments, the records pertaining to non-compliant cleaning solvents used in the specified exempt cleaning operations now need not list the parts and assemblies cleaned, but only the exempt processes where these solvents were used.

Three additional issues are being addressed in a supplemental rulemaking. They include an expanded emissions averaging scheme that would encompass topcoats, primers and maskants; inorganic particulate controls; and emission limitations for certain maskants which were originally exempt from the proposed NESHAP. Additionally, EPA is working with the South Coast Air Quality Management District (SCAQMD) and Region IX to ensure that this regulation does not interfere with SCAQMD's volatile organic compound trading program. Any revisions to Aerospace NESHAP that may be required to mesh the regulation with the trading program will also be included in the supplemental rulemaking. The proposal for the supplemental notice should appear in the Federal Register no later than November, 1995.

IV. Administrative Requirements.

A. Docket

The docket is an organized and complete file of all of the information submitted to or otherwise considered by the EPA in the development of this rulemaking. The docket is a dynamic file, since material is added throughout the rulemaking development. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the statement of basis and purpose of the proposed and promulgated standards and the EPA responses to significant comments, the contents of the docket will serve as the record in case of judicial review (except for interagency review materials) [section 307(d)(7)(A) of the Act].

B. Paperwork Reduction Act

The information collection requirements contained in this rule have been approved by the Office of

Management and Budget (OMB) under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. and have been assigned OMB control number (2060-0341). An Information Collection Request (ICR) document has been prepared by the EPA (ICR No. 1687-02) to reflect the changed information requirements of the final rule.

This collection of information has an estimated reporting burden per affected facility of about 73 hours for the first year. In subsequent years, the burden will be approximately 55 hours per affected facility. These burden estimates include time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Director, Regulatory Information Division; U.S. Environmental Protection Agency (Mail code 2136); 401 M Street, SW., Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, marked "Attention: Desk Officer for EPA."

C. Executive Order 12866

Under Executive Order 12866 (58 FR 51735 (October 4, 1993)), the EPA is required to determine whether a regulation is "significant" and therefore subject to OMB review and the requirements of this Executive Order to prepare a regulatory impact analysis (RIA). The 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 this rule is a "significant regulatory action" within the meaning of the Executive Order.

D. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 et seq.) requires the EPA to consider potential impacts of regulations on small business "entities." If a preliminary analysis indicates that a regulation would have a significant economic impact on 20 percent or more of small entities, a regulatory flexibility analysis must be prepared. Since the final rule applies only to major sources as defined in section 112(a) of the Act, the EPA certifies that there will not be a significant impact on a substantial number of small entities. Consequently, a regulatory flexibility analysis is not required and has not been prepared.

E. Regulatory Review

In accordance with sections 112(d)(6) and 112(f)(2) of the Act, this regulation will be reviewed within 8 years from the date of promulgation. This review may include an assessment of such factors as evaluation of the residual health risk, any overlap with other programs, the existence of alternative methods of control, enforceability, improvements in emission control technology and health data, and the recordkeeping and reporting requirements.

F. Unfunded Mandate Act

The economic impact analysis performed prior to proposal showed that the economic impacts from implementation of the proposed standards would not be "significant" as defined in Executive Order 12866 (see Section IV.C). No changes have been made to the proposed rule that would increase the economic impacts to a level that would be considered significant.

This final rule is estimated to result in a total cost of \$21 million per year, however, expenditures by State, local, and tribal governments or the private sector are estimated at more than \$100 million in any one year. The lower costs are the result of the savings incurred by the pollution prevention measures used as the basis for the rule.

The Agency has prepared the following statement of impact to be considered in response to the requirements of the Unfunded Mandates Act.

There are no federal funds available to assist State, local, and tribal governments in meeting these costs. There are important benefits from VOC and HAP emission reductions because these compounds have significant, adverse impacts on human health and welfare and on the environment. The rule does not have any disproportionate budgetary effects on any particular region of the nation, any State, local, or

tribal government, or urban or rural or other type of community. On the contrary, the rule will result in only a minimal increase in the average product rates (less than 1 percent). Moreover, the rule will not have a material effect on the national economy.

Prior to issuing this rule, the EPA provided numerous opportunities (e.g. public comment period; public hearing; Roundtable meetings with industry, trade associations, state and local air pollution representatives; environmental groups; State, local, and tribal governments; and concerned citizens) for consultation with interested parties. In general, State and local environmental agencies advocated that EPA adopt more stringent environmental controls. The Agency evaluated the comments and concerns, and the final rule reflects, to the extent consistent with section 112 of the Act, those comments and concerns. While small governments are not significantly or uniquely affected by the rule, these procedures, as well as additional public conferences and meetings, gave small governments an opportunity to give meaningful and timely input and obtain

information, education, and advice on compliance.

The Agency considered several regulatory options in developing the rule. The options selected in the final rule are the least costly and least burdensome alternatives currently available for achieving the objectives of section 112 of the Act. The cost effectiveness for this regulation is \$170 per ton and all but one of the regulatory options selected are based on pollution prevention measures. Finally, after careful consideration of the costs, the environmental impacts and the comments, the Agency decided that the MACT floor was the appropriate level of control for this regulation.

List of Subjects

40 CFR Part 9

Environmental protection, Reporting and recordkeeping requirements.

40 CFR Part 63

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

Dated: July 31, 1995.

Carol M. Browner,
Administrator.

For reasons set out in the preamble, parts 9 and 63 of title 40, chapter I, of the Code of Federal Regulations are amended as follows:

PART 9—[AMENDED]

1. The authority citation for part 9 continues to read as follows:

Authority: 7 U.S.C. 135 *et seq.*, 136–136y; 15 U.S.C. 2001, 2003, 2005, 2006, 2601–2671; 21 U.S.C. 331j, 346a, 348; 31 U.S.C. 9701; 33 U.S.C. 1251 *et seq.*, 1311, 1313d, 1314, 1321, 1326, 1330, 1344, 1345 (d) and (e), 1361; E.O. 11735, 38 FR 21243, 3 CFR 1971–1975 Comp., p. 973; 42 U.S.C. 241, 242b, 243, 246, 300f, 300g, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–1, 300j–2, 300j–3, 300j–4, 300j–9, 1857 *et seq.*, 6901–6992k, 7401–7671q, 7542, 9601–9657, 11023, 11048.

2. Section 9.1 is amended by adding a new entry to the table under the indicated heading to read as follows:

§ 9.1 OMB approvals under the Paperwork Reduction Act.

* * * * *

40 CFR citation

OMB control No.

National Emission Standards for Hazardous Air Pollutants for Source Categories.

63.752–63.753

2060–0341

PART 63—[AMENDED]

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

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

4. Part 63 is amended by adding a new subpart GG consisting of §§ 63.740 through 63.759 to read as follows:

Subpart GG—National Emission Standards for Aerospace Manufacturing and Rework Facilities

Sec.

- 63.741 Applicability and designation of affected sources.
- 63.742 Definitions.
- 63.743 Standards: General.
- 63.744 Standards: Cleaning operations.
- 63.745 Standards: Primer and topcoat application operations.
- 63.746 Standards: Depainting operations.
- 63.747 Standards: Chemical milling maskant application operations.
- 63.748 Standards: Handling and storage of waste.
- 63.749 Compliance dates and determinations.
- 63.750 Test methods and procedures.
- 63.751 Monitoring requirements.
- 63.752 Recordkeeping requirements.

- 63.753 Reporting requirements.
- 63.754–63.759 Reserved.

SUBPART GG—NATIONAL EMISSION STANDARDS FOR AEROSPACE MANUFACTURING AND REWORK FACILITIES

§ 63.741 Applicability and designation of affected sources.

(a) This subpart applies to facilities that are engaged, either in part or in whole, in the manufacture or rework of commercial, civil, or military aerospace vehicles or components and that are major sources as defined in § 63.2.

(b) The owner or operator of an affected source shall comply with the requirements of this subpart and of subpart A of this part, except as specified in § 63.743(a).

(c) *Affected sources.* The affected sources to which the provisions of this subpart apply are specified in § 63.741(c)(1) through (6). The activities subject to this subpart are limited to the manufacture or rework of aerospace vehicles or components as defined in

this subpart, except for requirements pertaining to cleaning solvents. Paragraphs (c)(2) through (c)(6) of this section are not applicable to non-aerospace activities.

(1) Each cleaning operation as follows:

(i) All hand-wipe cleaning operations constitute an affected source.

(ii) Each spray gun cleaning operation constitutes an affected source.

(iii) All flush cleaning operations constitute an affected source.

(2) Each primer application operation, which is the total of all primer applications at the facility.

(3) Each topcoat application operation, which is the total of all topcoat applications at the facility.

(4) Each depainting operation, which is the total of all depainting at the facility.

(5) Each chemical milling maskant application operation, which is the total of all chemical milling maskant applications at the facility.

(6) Each waste storage and handling operation, which is the total of all waste handling and storage at the facility.

(d) An owner or operator of an affected source subject to this subpart shall obtain an operating permit from the permitting authority in the State in which the source is located. The owner or operator shall apply for and obtain such permit in accordance with the regulations contained in part 70 of this chapter and in applicable State regulations.

(e) All wastes that are determined to be hazardous wastes under the Resource Conservation and Recovery Act of 1976 (PL 94-580) (RCRA) as implemented by 40 CFR parts 260 and 261, and that are subject to RCRA requirements as implemented in 40 CFR parts 262 through 268, are exempt from the requirements of this subpart.

(f) This subpart does not contain control requirements for use of specialty coatings, adhesives, adhesive bonding primers, or sealants at aerospace facilities. It also does not regulate research and development, quality control, and laboratory testing activities, chemical milling, metal finishing, electrodeposition (except for electrodeposition of paints), composites processing (except for cleaning and coating of composite parts or components that become part of an aerospace vehicle or component as well as composite tooling that comes in contact with such composite parts or components prior to cure), electronic parts and assemblies (except for cleaning and topcoating of completed assemblies), manufacture of aircraft transparencies, and wastewater operations at aerospace facilities. These requirements also do not apply to parts and assemblies not critical to the vehicle's structural integrity or flight performance or to vehicles that are designed to travel beyond the limit of the earth's atmosphere. The requirements of this subpart also do not apply to primers, topcoats, chemical milling maskants, strippers, and cleaning solvents containing HAP or VOC at a concentration less than 0.1% for carcinogens or 1.0% for noncarcinogens, as determined from manufacturer's representations. Additional specific exemptions from regulatory coverage are set forth in § 63.741(e), .744(a)(1), (b), (e), .745(a), (f)(3), (g)(4), .746(a), (b)(5), .747(c)(3), and .749(d).

(g) The requirements for primers, topcoats, and chemical milling maskants in § 63.745 and § 63.747 do not apply to the use of low-volume coatings in these categories for which the annual total of each separate

formulation used at a facility does not exceed 189 l (50 gal), and the combined annual total of all such primers, topcoats, and chemical milling maskants used at a facility does not exceed 757 l (200 gal). Primers and topcoats exempted under paragraph (f) of this section and under § 63.745(f)(3) and (g)(4) are not included in the 50 and 200 gal limits. Chemical milling maskants exempted under § 63.747(c)(3) are also not included in these limits.

§ 63.742 Definitions.

Terms used in this subpart are defined in the Act, in subpart A of this part, or in this section as follows:

Aerospace facility means any facility that produces, reworks, or repairs in any amount any commercial, civil, or military aerospace vehicle or component.

Aerospace vehicle or component means any fabricated part, processed part, assembly of parts, or completed unit, with the exception of electronic components, of any aircraft including but not limited to airplanes, helicopters, missiles, rockets, and space vehicles.

Aircraft fluid systems means those systems that handle hydraulic fluids, fuel, cooling fluids, or oils.

Aircraft transparency means the aircraft windshield, which is typically constructed of laminated layers of glass and other transparent materials.

Carbon adsorber means one vessel in a series of vessels in a carbon adsorption system that contains carbon and is used to remove gaseous pollutants from a gaseous emission source.

Carbon Adsorber control efficiency means the total efficiency of the control system, determined by the product of the capture efficiency and the control device efficiency.

Chemical milling maskant means a coating that is applied directly to aluminum components to protect surface areas when chemical milling the component with a Type II etchant. This does not include maskants used with Type I etchants, bonding maskants, line sealers, and critical use and seal coat maskants. Additionally, maskants that must be used on an individual part or subassembly with a combination of Type II etchants and any of the above types of maskants (e.g. Type I compatible, bonding, line sealers, and critical use and seal coat) are also exempt from this subpart.

Chemical milling maskant application operation means application of chemical milling maskant for use in Type II chemical milling etchants.

Cleaning operation means collectively spray gun, hand-wipe, and flush cleaning operations.

Cleaning solvent means a liquid material used for hand-wipe, spray gun, or flush cleaning. This definition does not include solutions that contain no HAP or VOC.

Coating means a material that is applied to the surface of an aerospace vehicle or component to form a decorative or functional solid film, or the solid film itself.

Coating operation means the use of a spray booth, tank, or other enclosure or any area, such as a hangar, for the application of a single type of coating (e.g., primer); the use of the same spray booth for the application of another type of coating (e.g., topcoat) constitutes a separate coating operation for which compliance determinations are performed separately.

Coating unit means a series of one or more coating applicators and any associated drying area and/or oven wherein a coating is applied, dried, and/or cured. A coating unit ends at the point where the coating is dried or cured, or prior to any subsequent application of a different coating. It is not necessary to have an oven or flashoff area in order to be included in this definition.

Confined space means a space that: (1) is large enough and so configured that an employee can bodily enter and perform assigned work; (2) has limited or restricted means for entry or exit (for example, fuel tanks, fuel vessels, and other spaces that have limited means of entry); and (3) is not suitable for continuous employee occupancy.

Control device means destruction and/or recovery equipment used to destroy or recover HAP or VOC emissions generated by a regulated operation.

Control system means a combination of pollutant capture system(s) and control device(s) used to reduce discharge to the atmosphere of HAP or VOC emissions generated by a regulated operation.

Depainting means the removal of a permanent coating from the outer surface of an aerospace vehicle or component, whether by chemical or non-chemical means. For non-chemical means, this definition excludes hand and mechanical sanding, and any other non-chemical removal processes that do not involve blast media or other mechanisms that would result in airborne particle movement at high velocity.

Depainting operation means the use of a chemical agent, media blasting, or any other technique to remove permanent coatings from the outer surface of an aerospace vehicle or components. The depainting operation

includes washing of the aerospace vehicle or component to remove residual stripper, media, or coating residue.

Electrodeposition of paint means the application of a coating using a water-based electrochemical bath process. The component being coated is immersed in a bath of the coating. An electric potential is applied between the component and an oppositely charged electrode hanging in the bath. The electric potential causes the ionized coating to be electrically attracted, migrated, and deposited on the component being coated.

Electrostatic spray means a method of applying a spray coating in which an electrical charge is applied to the coating and the substrate is grounded. The coating is attracted to the substrate by the electrostatic potential between them.

Exempt solvent means specified organic compounds that have been determined by the EPA to have negligible photochemical reactivity and are listed in 40 CFR 51.100.

Flush cleaning means the removal of contaminants such as dirt, grease, oil, and coatings from an aerospace vehicle or component or coating equipment by passing solvent over, into, or through the item being cleaned. The solvent may simply be poured into the item being cleaned and then drained, or be assisted by air or hydraulic pressure, or by pumping. Hand-wipe cleaning operations where wiping, scrubbing, mopping, or other hand action are used are not included.

Hand-wipe cleaning operation means the removal of contaminants such as dirt, grease, oil, and coatings from an aerospace vehicle or component by physically rubbing it with a material such as a rag, paper, or cotton swab that has been moistened with a cleaning solvent.

Hazardous air pollutant (HAP) means any air pollutant listed in or pursuant to section 112(b) of the Act.

High efficiency particulate air (HEPA) filter means a filter that has a 99.97 percent reduction efficiency for 0.3 micron aerosol.

High volume low pressure (HVLP) spray equipment means spray equipment that is used to apply coating by means of a spray gun that operates at 10.0 psig or less at the air cap and a fluid delivery pressure of 100 psig or less.

Inorganic hazardous air pollutant (HAP) means any HAP that is not organic.

Leak means any visible leakage, including misting and clouding.

Limited access space means internal surfaces or passages of an aerospace vehicle or component that cannot be reached without the aid of an airbrush or a spray gun extension for the application of coatings.

Mechanical sanding means aerospace vehicle or component surface conditioning which uses directional and random orbital abrasive tools and aluminum oxide or nylon abrasive pads for the purpose of corrosion rework, substrate repair, prepaint surface preparation, and other maintenance activities.

Natural draft opening means any opening in a room, building, or total enclosure that remains open during operation of the facility and that is not connected to a duct in which a fan is installed. The rate and direction of the natural draft through such an opening is a consequence of the difference in pressures on either side of the wall containing the opening.

Non-chemical based depainting equipment means any depainting equipment or technique, including, but not limited to, media blasting equipment, that can depaint an aerospace vehicle or component in the absence of a chemical stripper. This definition does not include mechanical sanding or hand sanding.

Nonregenerative carbon adsorber means a carbon adsorber vessel in which the spent carbon bed does not undergo carbon regeneration in the adsorption vessel.

Operating parameter value means a minimum or maximum value established for a control device or 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 emission limitation.

Organic hazardous air pollutant (HAP) means any HAP that is organic.

Primer means the first layer and any subsequent layers of identically formulated coating applied to the surface of an aerospace vehicle or component. Primers are typically used for corrosion prevention, protection from the environment, functional fluid resistance, and adhesion of subsequent coatings. Coatings that are defined as specialty coatings are not included under this definition.

Radome means the non-metallic protective housing for electromagnetic transmitters and receivers (e.g., radar, electronic countermeasures, etc.).

Research and Development means an operation 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 involved in the manufacture of final or intermediate products for commercial purposes, except in a de minimis manner.

Self-priming topcoat means a topcoat that is applied directly to an uncoated aerospace vehicle or component for purposes of corrosion prevention, environmental protection, and functional fluid resistance. More than one layer of identical coating formulation may be applied to the vehicle or component. The coating is not subsequently topcoated with any other product formulation.

Semi-aqueous cleaning solvent means a solution in which water is a primary ingredient ("60 percent of the solvent solution as applied must be water.")

Softener means a liquid that is applied to an aerospace vehicle or component to degrade coatings such as primers and topcoats specifically as a preparatory step to subsequent depainting by non-chemical based depainting equipment. Softeners may contain VOC but shall not contain any HAP as determined from MSDS's or manufacturer supplied information.

Solids means the non-volatile portion of the coating which after drying makes up the dry film.

Space vehicle means a man-made device, either manned or unmanned, designed for operation beyond earth's atmosphere. This definition includes integral equipment such as models, mock-ups, prototypes, molds, jigs, tooling, hardware jackets, and test coupons. Also included is auxiliary equipment associated with test, transport, and storage, which through contamination can compromise the space vehicle performance.

Specialty coating means a coating that, even though it meets the definition of a primer, topcoat, or self-priming topcoat, has additional performance criteria beyond those of primers, topcoats, and self-priming topcoats for specific applications. These performance criteria may include, but are not limited to, temperature or fire resistance, substrate compatibility, antireflection, temporary protection or marking, sealing, adhesively joining substrates, or enhanced corrosion protection.

Spot stripping means the depainting of an area where it is not technically feasible to use a non-chemical depainting technique.

Spray gun means a device that atomizes a coating or other material and projects the particulates or other material onto a substrate.

Stripper means a liquid that is applied to an aerospace vehicle or component to remove permanent coatings such as primers and topcoats.

Surface preparation means the removal of contaminants from the surface of an aerospace vehicle or component, or the activation or reactivation of the surface in preparation for the application of a coating.

Temporary total enclosure means a total enclosure that is constructed for the sole purpose of measuring the emissions from an affected source that are not delivered to an emission control device. A temporary total enclosure must be constructed and ventilated (through stacks suitable for testing) so that it has minimal impact on the performance of the permanent emission capture system. A temporary total enclosure will be assumed to achieve total capture of fugitive emissions if it conforms to the requirements found in § 63.750(g)(4) and if all natural draft openings are at least four duct or hood equivalent diameters away from each exhaust duct or hood. Alternatively, the owner or operator may apply to the Administrator for approval of a temporary enclosure on a case-by-case basis.

Topcoat means a coating that is applied over a primer on an aerospace vehicle or component for appearance, identification, camouflage, or protection. Coatings that are defined as specialty coatings are not included under this definition.

Total enclosure means a permanent structure that is constructed around a gaseous emission source so that all gaseous pollutants emitted from the source are collected and ducted through a control device, such that 100% capture efficiency is achieved. There are no fugitive emissions from a total enclosure. The only openings in a total enclosure are forced makeup air and exhaust ducts and any natural draft openings such as those that allow raw materials to enter and exit the enclosure for processing. All access doors or windows are closed during routine operation of the enclosed source. Brief, occasional openings of such doors or windows to accommodate process equipment adjustments are acceptable, but if such openings are routine or if an access door remains open during the entire operation, the access door must be considered a natural draft opening. The average inward face velocity across the natural draft openings of the enclosure must be calculated including the area of such access doors. The drying oven itself may be part of the total enclosure. An enclosure that meets

the requirements found in § 63.750(g)(4) is a permanent total enclosure.

Touch-up and repair operation means that portion of the coating operation that is the incidental application of coating used to cover minor imperfections in the coating finish or to achieve complete coverage. This definition includes out-of-sequence or out-of-cycle coating.

Two-stage filter system means a dry particulate filter system using two layers of filter media to remove particulate. The first stage is designed to remove the bulk of the particulate and a higher efficiency second stage is designed to remove smaller particulate.

Type II etchant means a chemical milling etchant that is a strong sodium hydroxide solution containing amines (Type I etchants contain varying amounts of dissolved sulfur and do not contain amines).

Volatile organic compound (VOC) means any compound defined as VOC in 40 CFR 51.100. This includes any organic compound other than those determined by the EPA to be an exempt solvent. For purposes of determining compliance with emission limits, VOC will be measured by the approved test methods. Where such a method also inadvertently measures compounds that are exempt solvent, an owner or operator may exclude these exempt solvents when determining compliance with an emission standard.

Waterwash system means a control system that utilizes flowing water to remove particulate emissions from the exhaust air stream in spray coating application or dry media blast departing operations.

Nomenclature for determining carbon adsorber efficiency—The nomenclature defined below is used in § 63.750(g):

(1) A_k = the area of each natural draft opening (k) in a total enclosure, in square meters.

(2) C_{ej} = the concentration of HAP or VOC in each gas stream (j) exiting the emission control device, in parts per million by volume.

(3) C_{ei} = the concentration of HAP or VOC in each gas stream (i) entering the emission control device, in parts per million by volume.

(4) C_{di} = the concentration of HAP or VOC in each gas stream (i) entering the emission control device from the affected source, in parts per million by volume.

(5) C_{kx} = the concentration of HAP or VOC in each uncontrolled gas stream (k) emitted directly to the atmosphere from the affected source, in parts per million by volume.

(6) C_{gv} = the concentration of HAP or VOC in each uncontrolled gas stream entering each individual carbon

adsorber vessel (v), in parts per million by volume. For the purposes of calculating the efficiency of the individual carbon adsorber vessel, C_{gv} may be measured in the carbon adsorption system's common inlet duct prior to the branching of individual inlet ducts to the individual carbon adsorber vessels.

(7) C_{nv} = the concentration of HAP or VOC in the gas stream exiting each individual carbon adsorber vessel (v), in parts per million by volume.

(8) E = the control device efficiency achieved for the duration of the emission test (expressed as a fraction).

(9) F = the HAP or VOC emission capture efficiency of the HAP or VOC capture system achieved for the duration of the emission test (expressed as a fraction).

(10) FV = the average inward face velocity across all natural draft openings in a total enclosure, in meters per hour.

(11) H_v = the individual carbon adsorber vessel (v) efficiency achieved for the duration of the emission test (expressed as a fraction).

(12) H_{vs} = the efficiency of the carbon adsorption system calculated when each carbon adsorber vessel has an individual exhaust stack (expressed as a fraction).

(13) M_c = the total mass in kilograms of each batch of coating (i) applied, or of each coating applied at an affected coating operation during a 7 to 30-day period, as appropriate, as determined from records at the affected source. This quantity shall be determined at a time and location in the process after all ingredients (including any dilution solvent) have been added to the coating, or if ingredients are added after the mass of the coating has been determined, appropriate adjustments shall be made to account for them.

(14) M_r = the total mass in kilograms of HAP or VOC recovered for a 7 to 30-day period.

(15) Q_{ej} = the volumetric flow rate of each gas stream (j) exiting the emission control device in either dry standard cubic meters per hour when EPA Method 18 in appendix A of part 60 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(16) Q_{ei} = the volumetric flow rate of each gas stream (i) entering the emission control device, in dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(17) Q_{di} = the volumetric flow rate of each gas stream (i) entering the emission control device from the affected source in either dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(18) Q_{dk} = the volumetric flow rate of each uncontrolled gas stream (k) emitted directly to the atmosphere from the affected source in either dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(19) Q_{gv} = the volumetric flow rate of each gas stream entering each individual carbon adsorber vessel (v) in either dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration. For purposes of calculating the efficiency of the individual carbon adsorber vessel, the value of Q_{gv} can be assumed to equal the value of Q_{hv} measured for that carbon adsorber vessel.

(20) Q_{hv} = the volumetric flow rate of each gas stream exiting each individual carbon adsorber vessel (v) in either dry standard cubic meters per hour when EPA Method 18 is used to measure HAP or VOC concentration or in standard cubic meters per hour (wet basis) when EPA Method 25A is used to measure HAP or VOC concentration.

(21) Q_{ini} = the volumetric flow rate of each gas stream (i) entering the total enclosure through a forced makeup air duct in standard cubic meters per hour (wet basis).

(22) Q_{outj} = the volumetric flow rate of each gas stream (j) exiting the total enclosure through an exhaust duct or hood in standard cubic meters per hour (wet basis).

(23) R = the overall HAP or VOC emission reduction achieved for the duration of the emission test (expressed as a percentage).

(24) RS_i = the total mass in kilograms of HAP or VOC retained in the coating after drying.

(25) W_{oi} = the weight fraction of VOC in each batch of coating (i) applied, or of each coating applied at an affected coating operation during a 7- to 30-day period, as appropriate, as determined by EPA Method 24 or formulation data. This value shall be determined at a time and location in the process after all ingredients (including any dilution solvent) have been added to the coating,

or if ingredients are added after the weight fraction of HAP or VOC in the coating has been determined, appropriate adjustments shall be made to account for them.

§ 63.743 Standards: General.

(a) Except as provided in paragraphs (a)(4) through (a)(9) of this section and in Table 2 (included in Appendix B to this subpart), each owner or operator of an affected source subject to this subpart is also subject to the following sections of subpart A of this part:

(1) § 63.4, Prohibited activities and circumvention;

(2) § 63.5, Construction and reconstruction; and

(3) § 63.6, Compliance with standards and maintenance requirements.

(4) For the purposes of this subpart, all affected sources shall submit any request for an extension of compliance not later than 120 days before the affected source's compliance date. The extension request should be requested for the shortest time necessary to attain compliance, but in no case shall exceed 1 year.

(5)(i) For the purposes of this subpart, the Administrator (or the State with an approved permit program) will notify the owner or operator in writing of his/her intention to deny approval of a request for an extension of compliance submitted under either § 63.6(i)(4) or § 63.6(i)(5) within 60 calendar days after receipt of sufficient information to evaluate the request.

(ii) In addition, for purposes of this subpart, if the Administrator does not notify the owner or operator in writing of his/her intention to deny approval within 60 calendar days after receipt of sufficient information to evaluate a request for an extension of compliance, then the request shall be considered approved.

(6)(i) For the purposes of this subpart, the Administrator (or the State) will notify the owner or operator in writing of the status of his/her application submitted under § 63.6(i)(4)(ii) (that is, whether the application contains sufficient information to make a determination) within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted, rather than 15 calendar days as provided for in § 63.6(i)(13)(i).

(ii) In addition, for the purposes of this subpart, if the Administrator does not notify the owner or operator in writing of the status of his/her application within 30 calendar days after receipt of the original application and within 30 calendar days after

receipt of any supplementary information that is submitted, then the information in the application or the supplementary information is to be considered sufficient upon which to make a determination.

(7) For the purposes of this subpart, each owner or operator who has submitted an extension request application under § 63.6(i)(5) is to be provided 30 calendar days to present additional information or arguments to the Administrator after he/she is notified that the application is not complete, rather than 15 calendar days as provided for in § 63.6(i)(13)(ii).

(8) For the purposes of this subpart, each owner or operator is to be provided 30 calendar days to present additional information to the Administrator after he/she is notified of the intended denial of a compliance extension request submitted under either § 63.6(i)(4) or § 63.6(i)(5), rather than 15 calendar days as provided for in § 63.6(i)(12)(iii)(B) and § 63.6(i)(13)(iii)(B).

(9) For the purposes of this subpart, a final determination to deny any request for an extension submitted under either § 63.6(i)(4) or § 63.6(i)(5) will be made within 60 calendar days after presentation of additional information or argument (if the application is complete), or within 60 calendar days after the final date specified for the presentation if no presentation is made, rather than 30 calendar days as provided for in § 63.6(i)(12)(iv) and § 63.6(i)(13)(iv).

(b) *Operation and maintenance plan.* Each owner or operator that uses an air pollution control device or equipment to control HAP emissions shall prepare and operate in accordance with a startup, shutdown, and malfunction plan in accordance with § 63.6. Dry particulate filter systems operated per the manufacturer's instructions are exempt from a startup and shutdown plan. A startup and shutdown plan shall be prepared for facilities using locally prepared operating procedures. In addition to the information required in § 63.6, this plan shall also include the following provisions:

(1) The plan shall specify the operation and maintenance criteria for each air pollution control device or equipment and shall include a standardized checklist to document the operation and maintenance of the equipment;

(2) The plan shall include a systematic procedure for identifying malfunctions and for reporting them immediately to supervisory personnel; and

(3) The plan shall specify procedures to be followed to ensure that equipment

or process malfunctions due to poor maintenance or other preventable conditions do not occur.

(c) An owner or operator who uses an air pollution control device or equipment not listed in this subpart shall submit a description of the device or equipment, test data verifying the performance of the device or equipment in controlling organic HAP and/or VOC

emissions, as appropriate, specific operating parameters that will be monitored to establish compliance with the standards, and a copy of the operation and maintenance plan referenced in paragraph (b) of this section to the Administrator for approval.

§ 63.744 Standards: Cleaning operations.

(a) *Housekeeping measures.* Each owner or operator of a new or existing cleaning operation subject to this subpart shall comply with the requirements in this paragraph unless the solvent used is classified as a cleaning solvent that contains no organic HAP or VOC as identified in Table 3.

TABLE 3.—COMPOSITION REQUIREMENTS FOR APPROVED CLEANING SOLVENTS

Cleaning solvent type	Composition requirements
Aqueous	Cleaning solvents in which water is the primary ingredient (≥80 percent of solvent solution as applied must be water). Detergents, surfactants, and bioenzyme mixtures and nutrients may be combined with the water along with a variety of additives such as organic solvents (e.g., high boiling point alcohols), builders, saponifiers, inhibitors, emulsifiers, pH buffers, and antifoaming agents. Aqueous solutions must have a flash point greater than 93 °C (200 °F) (as reported by the manufacturer) and the solution must be miscible with water.
Hydrocarbon-Based	Cleaners that are composed of a mixture of photochemically reactive hydrocarbons and oxygenated hydrocarbons and have a maximum vapor pressure of 7 mm Hg at 20 °C (3.75 in. H ₂ O at 68 °F). These cleaners also contain no HAP or ozone depleting compounds.

(1) Place solvent-laden cloth, paper, or any other absorbent applicators used for cleaning aerospace vehicles or components in bags or other closed containers immediately after use. Ensure that these bags and containers are kept closed at all times except when depositing or removing these materials from the container. Use bags and containers of such design so as to contain the vapors of the cleaning solvent. Cotton-tipped swabs used for very small cleaning operations are exempt from this requirement.

(2) Store fresh and spent cleaning solvents used in aerospace cleaning operations in closed containers.

(3) Conduct the handling and transfer of cleaning solvents to or from enclosed systems, vats, waste containers, and other cleaning operation equipment that hold or store fresh or spent cleaning solvents in such a manner that minimizes spills.

(b) *Hand-wipe cleaning.* Each owner or operator of a new or existing hand-wipe cleaning operation (excluding cleaning of spray gun equipment performed in accordance with paragraph (c)(3) of this section) subject to this subpart shall use cleaning solvents that meet one of the requirements specified in paragraphs (b)(1), (b)(2), and (b)(3) of this section. Cleaning solvent solutions that contain no HAP or VOC are exempt from the requirements in paragraphs (b)(1), (b)(2), and (b)(3).

(1) Meet one of the composition requirements in Table 3;

(2) Have a composite vapor pressure of 45 mm Hg (24.1 in. H₂O) or less at 20 °C (68 °F); or

(3) Demonstrate that the volume of hand-wipe solvents used in cleaning operations has been reduced by at least 60% from a baseline adjusted for production. The baseline shall be established as part of an approved alternative plan administered by the State. The alternative plan shall be submitted by the State under section 112(l) of the Act and approved by the Administrator, and shall demonstrate that the 60% volume reduction in cleaning solvents provides equivalent reductions to the requirements in paragraph (b)(1) or (b)(2).

(c) *Spray gun cleaning.* Each owner or operator of a new or existing spray gun cleaning operation subject to this subpart in which spray guns are used for the application of coatings or any other materials that require the spray guns to be cleaned shall use one or more of the techniques, or their equivalent, specified in paragraphs (c)(1) through (c)(4) of this section.

(1)(i) Enclosed system. Clean the spray gun in an enclosed system that is closed at all times except when inserting or removing the spray gun. Cleaning shall consist of forcing solvent through the gun.

(ii) If leaks are found during the monthly inspection required in § 63.751(a), repairs shall be made as soon as practicable, but no later than 15 days after the leak was found. If the leak is not repaired by the 15th day after detection, the solvent shall be removed and the enclosed cleaner shall be shut down until the leak is repaired or its use is permanently discontinued.

(2) Nonatomized cleaning. Clean the spray gun by placing solvent in the

pressure pot and forcing it through the gun with the atomizing cap in place. No atomizing air is to be used. Direct the solvent from the spray gun into a vat, drum, or other waste container that is closed when not in use.

(3) Disassembled spray gun cleaning. Disassemble the spray gun and clean the components by hand in a vat, which shall remain closed at all times except when in use. Alternatively, soak the components in a vat, which shall remain closed during the soaking period and when not inserting or removing components.

(4) Atomizing cleaning. Clean the spray gun by forcing the solvent through the gun and direct the resulting atomized spray into a waste container that is fitted with a device designed to capture the atomized solvent emissions.

(d) *Flush cleaning.* Each owner or operator of a flush cleaning operation subject to this subpart (excluding those in which Table 3 or semi-aqueous cleaning solvents are used) shall empty the used cleaning solvent each time an aerospace part or assembly, or a component of a coating unit (with the exception of spray guns) is flush cleaned into an enclosed container or collection system that is kept closed when not in use or into a system with equivalent emission control.

(e) *Exempt cleaning operations.* The following cleaning operations are exempt from the requirements of paragraph (b) of this section:

(1) Cleaning during the manufacture, assembly, installation, or testing of components of breathing oxygen systems that are exposed to the breathing oxygen;

(2) Cleaning during the manufacture, assembly, installation, or testing of parts, subassemblies, or assemblies that are exposed to strong oxidizers or reducers (e.g., nitrogen tetroxide, liquid oxygen, or hydrazine);

(3) Cleaning and surface activation prior to adhesive bonding;

(4) Cleaning of electronic parts and assemblies containing electronic parts;

(5) Cleaning of aircraft and ground support equipment fluid systems that are exposed to the fluid, including air-to-air heat exchangers and hydraulic fluid systems;

(6) Cleaning of fuel cells, fuel tanks, and confined spaces;

(7) Surface cleaning of solar cells, coated optics, and thermal control surfaces;

(8) Cleaning during fabrication, assembly, installation, and maintenance of upholstery, curtains, carpet, and other textile materials used in the interior of the aircraft;

(9) Cleaning of metallic and non-metallic materials used in honeycomb cores during the manufacture of these cores, and cleaning of the completed cores used in the manufacture of aerospace vehicles or components;

(10) Cleaning of polycarbonate or glass substrates; and

(11) Cleaning and solvent usage associated with research and development, quality control, and laboratory testing.

(12) Cleaning operations, using nonflammable liquids, conducted within five feet of energized electrical systems. Energized electrical systems means any AC or DC electrical circuit on an assembled aircraft once electrical power is connected, including interior passenger and cargo areas, wheel wells and tail sections.

§ 63.745 Standards: Primer and topcoat application operations.

(a) Each owner or operator of a new or existing primer or topcoat application operation subject to this subpart shall comply with the requirements specified in paragraph (c) of this section for those coatings that are uncontrolled (no control device is used to reduce organic HAP emissions from the operation), and in paragraph (d) of this section for those coatings that are controlled (organic HAP emissions from the operation are reduced by the use of a control device). Aerospace equipment that is no longer operational, intended for public display, and not easily capable of being moved is exempt from the requirements of this section.

(b) Each owner or operator shall conduct the handling and transfer of primers and topcoats to or from

containers, tanks, vats, vessels, and piping systems in such a manner that minimizes spills.

(c) *Uncontrolled coatings—organic HAP and VOC content levels.* Each owner or operator shall comply with the organic HAP and VOC content limits specified in paragraphs (c)(1) through (c)(4) of this section for those coatings that are uncontrolled.

(1) Organic HAP emissions from primers shall be limited to an organic HAP content level of no more than 350 g/l (2.9 lb/gal) of primer (less water) as applied.

(2) VOC emissions from primers shall be limited to an VOC content level of no more than 350 g/l (2.9 lb/gal) of primer (less water and exempt solvents) as applied.

(3) Organic HAP emissions from topcoats shall be limited to an organic HAP content level of no more than 420 g/l (3.5 lb/gal) of coating (less water) as applied. Organic HAP emissions from self-priming topcoats shall be limited to an organic HAP content level of no more than 420 g/l (3.5 lb/gal) of self-priming topcoat (less water) as applied.

(4) VOC emissions from topcoats shall be limited to a VOC content level of no more than 420 g/l (3.5 lb/gal) of coating (less water and exempt solvents) as applied. VOC emissions from self-priming topcoats shall be limited to a VOC content level of no more than 420 g/l (3.5 lb/gal) of self-priming topcoat (less water and exempt solvents) as applied.

(d) *Controlled coatings—control system requirements.* Each control system shall reduce the operation's organic HAP and VOC emissions to the atmosphere by 81% or greater, taking into account capture and destruction or removal efficiencies, as determined using the procedures in § 63.750(g) when a carbon adsorber is used and in § 63.750(h) when a control device other than a carbon adsorber is used.

(e) *Compliance methods.* Compliance with the organic HAP and VOC content limits specified in paragraphs (c)(1) through (c)(4) of this section shall be accomplished by using the methods specified in paragraphs (e)(1) and (e)(2) of this section either by themselves or in conjunction with one another.

(1) Use primers and topcoats with HAP and VOC content levels equal to or less than the limits specified in paragraphs (c)(1) through (c)(4) of this section.

(2)(i) Use any combination of primers or topcoats such that the monthly volume-weighted average organic HAP and VOC contents of the combination of primers or topcoats comply with the specified content limits, unless the

permitting agency specifies a shorter averaging period as part of an ambient ozone control program.

(ii) Averaging primers together with topcoats is prohibited under this subsection.

(iii) Averaging is allowed only for uncontrolled primers or topcoats.

(iv) Each averaging scheme shall be approved in advance by the permitting agency and be adopted as part of the facility's title V permit.

(f) *Application Equipment.* Except as provided in paragraph (f)(3) of this section, each owner or operator of a new or existing primer or topcoat application operation subject to this subpart in which any of the coatings contain organic HAP or VOC shall comply with the requirements specified in paragraphs (f)(1) and (f)(2) of this section.

(1) All primers and topcoats shall be applied using one or more of the application techniques specified in paragraphs (f)(1)(i) through (f)(1)(viii) of this section.

- (i) Flow/curtain coat application;
- (ii) Dip coat application;
- (iii) Roll coating;
- (iv) Brush coating;
- (v) Cotton-tipped swab application;
- (vi) Electrodeposition (dip) coating;
- (vii) High volume low pressure (HVLP) spraying;
- (viii) Electrostatic spray application;

or

(ix) Other coating application methods that achieve emission reductions equivalent to HVLP or electrostatic spray application methods, as determined according to the requirements in § 63.750(i).

(2) All application devices used to apply primers or topcoats shall be operated according to company procedures, local specified operating procedures, and/or the manufacturer's specifications, whichever is most stringent, at all times. Equipment modified by the facility shall maintain a transfer efficiency equivalent to HVLP and electrostatic spray application techniques.

(3) The following situations are exempt from the requirements of paragraph (f)(1) of this section:

(i) Any situation that normally requires the use of an airbrush or an extension on the spray gun to properly reach limited access spaces;

(ii) The application of coatings that contain fillers that adversely affect atomization with HVLP spray guns and that the permitting agency has determined cannot be applied by any of the application methods specified in paragraph (f)(1) of this section;

(iii) The application of coatings that normally have a dried film thickness of

less than 0.0013 centimeter (0.0005 in.) and that the permitting agency has determined cannot be applied by any of the application methods specified in paragraph (f)(1) of this section;

(iv) The use of airbrush application methods for stenciling, lettering, and other identification markings;

(v) The use of hand-held spray can application methods; and

(vi) Touch-up and repair operations.

(g) *Inorganic HAP emissions.* Except as provided in paragraph (g)(4) of this section, each owner or operator of a new or existing primer or topcoat application operation subject to this subpart in which any of the coatings that are spray applied contain inorganic HAP, shall comply with the applicable requirements in paragraphs (g)(1) through (g)(3) of this section.

(1) Apply these coatings in a booth or hangar in which air flow is directed downward onto or across the part or assembly being coated and exhausted through one or more outlets.

(2) Control the air stream from this operation as follows:

(i) For existing sources, pass the air stream through either a dry particulate filter system or a waterwash system before exhausting it to the atmosphere.

(ii) Waterwash booths shall remain in operation during all coating application operations.

(iii) Dry filter booths shall include two-stage filter systems or the equivalent, as determined by the permitting agency.

(iv) For new sources, pass the air stream through either a two-stage dry particulate filter system or a waterwash system before exhausting it to the atmosphere. If the primer or topcoat contains chromium or cadmium, control shall consist of either a three-stage filter system, HEPA filter system, or other equivalent control system as approved by the permitting agency.

(v) If a dry particulate filter system is used, the following requirements shall be met:

(A) Maintain the system in good working order;

(B) Install a differential pressure gauge across the filter banks;

(C) Continuously monitor the pressure drop across the filter; and

(D) Take corrective action when the pressure drop exceeds or falls below the filter manufacturer's recommended limit(s).

(vi) If a waterwash system is used, continuously monitor the water flow rate.

(3) If the pressure drop across the dry particulate filter system, as recorded pursuant to § 63.752(d)(1), is outside the limit(s) specified by the filter

manufacturer or in locally prepared operating procedures, shut down the operation immediately and take corrective action. If the water path in the waterwash system fails the visual continuity/flow characteristics check, or the water flow rate recorded pursuant to § 63.752(d)(2) exceeds the limit(s) specified by the booth manufacturer or in locally prepared operating procedures, or the booth manufacturer's or locally prepared maintenance procedures for the filter or waterwash system have not been performed as scheduled, shut down the operation immediately and take corrective action. The operation shall not be resumed until the pressure drop or water flow rate is returned within the specified limit(s).

(4) The requirements of paragraphs (g)(1) through (g)(3) of this section do not apply to the following:

(i) Touch-up of scratched surfaces or damaged paint;

(ii) Hole daubing for fasteners;

(iii) Touch-up of trimmed edges;

(iv) Coating prior to joining dissimilar metal components;

(v) Stencil operations performed by brush or air brush;

(vi) Section joining;

(vii) Touch-up of bushings and other similar parts;

(viii) Sealant detackifying; and

(ix) Painting parts in an area identified in a title V permit, where the permitting authority has determined that it is not technically feasible to paint the parts in a booth.

§ 63.746 Standards: Depainting Operations.

(a) *Applicability.* Each owner or operator of a new or existing depainting operation subject to this subpart shall comply with the requirements in paragraphs (a)(1) through (a)(3) of this section, and with the requirements specified in paragraph (b) where there are no controls for organic HAP, or paragraph (c) where organic HAP are controlled using a control system. This subpart does not apply to an aerospace manufacturing facility that repaints 6 or less completed aerospace vehicles in a calendar year.

(1) The provisions of this section apply to the depainting of the outer surface areas of completed aerospace vehicles, including the fuselage, wings, and vertical and horizontal stabilizers of the aircraft, and the outer casing and stabilizers of missiles and rockets. These provisions do not apply to the depainting of parts or units normally removed from the aerospace vehicle for depainting. However, depainting of wings and stabilizers is always subject

to the requirements of this section regardless of whether their removal is considered by the owner or operator to be normal practice for depainting.

(2) Aerospace vehicles or components that are intended for public display, no longer operational, and not easily capable of being moved are exempt from the requirements of this section.

(3) The following depainting operations are exempt from the requirements of this section:

(i) Depainting of radomes; and

(ii) Depainting of parts, subassemblies, and assemblies normally removed from the primary aircraft structure before depainting.

(b)(1) *HAP emissions—non-HAP chemical strippers and technologies.* Except as provided in paragraph (b)(3) of this section, each owner or operator of a new or existing aerospace depainting operation subject to this subpart shall emit no organic HAP from chemical stripping formulations and agents or chemical paint softeners.

(2) Where non-chemical based equipment is used to comply with paragraph (b)(1) of this section, either in total or in part, each owner or operator shall operate and maintain the equipment according to the manufacturer's specifications or locally prepared operating procedures. During periods of malfunctions of such equipment, each owner or operator may use substitute materials during the repair period provided the substitute materials used are those available that minimize organic HAP emissions. In no event shall substitute materials be used for more than 15 days annually, unless such materials are organic HAP-free.

(3) Each owner or operator of a new or existing depainting operation complying with paragraph (b)(1) shall not, on an annual average basis, use more than 26 gallons of organic HAP-containing chemical strippers per commercial aircraft repainted or more than 50 gallons of organic HAP-containing chemical strippers per military aircraft repainted for spot stripping and decal removal.

(4) Each owner or operator of a new or existing depainting operation complying with paragraph (b)(2), that generates airborne inorganic HAP emissions from dry media blasting equipment, shall also comply with the requirements specified in paragraphs (b)(4)(i) through (b)(4)(v) of this section.

(i) Perform the depainting operation in an enclosed area.

(ii) Pass any air stream removed from the enclosed area through a dry particulate filter system, baghouse, or waterwash system before exhausting it to the atmosphere.

(iii) If a dry particulate filter system is used, the following requirements shall be met:

- (A) Maintain the system in good working order;
- (B) Install a differential pressure gauge across the filter banks;
- (C) Continuously monitor the pressure drop across the filter; and
- (D) Take corrective action when the pressure drop exceeds or falls below the filter manufacturer's recommended limits.

(iv) If a waterwash system is used, continuously monitor the water flow rate.

(v) If the pressure drop, as recorded pursuant to § 63.752(e)(7), is outside the limit(s) specified by the filter manufacturer or in locally prepared operating procedures, whichever is more stringent, shut down the operation immediately and take corrective action. If the water path in the waterwash system fails the visual continuity/flow characteristics check as recorded pursuant to § 63.752(a)(7), or the water flow rate, as recorded pursuant to § 63.752(d)(2), exceeds the limit(s) specified by the booth manufacturer or in locally prepared operating procedures, or the booth manufacturer's or locally prepared maintenance procedures for the filter or waterwash system have not been performed as scheduled, shut down the operation immediately and take corrective action. The operation shall not be resumed until the pressure drop or water flow rate is returned within the specified limit(s).

(5) Mechanical and hand sanding operations are exempt from the requirements in paragraph (b)(4) of this section.

(c) *Organic HAP emissions—organic HAP-containing chemical strippers.* Each owner or operator of a new or existing organic HAP-containing chemical stripper depainting operation subject to this subpart shall comply with the requirements specified in this paragraph.

(1) All organic HAP emissions from the operation shall be reduced by the use of a control system. Each control system that was installed before the effective date shall reduce the operations' organic HAP emissions to the atmosphere by 81% or greater, taking into account capture and destruction or removal efficiencies, as determined using the procedures in § 63.750(g) when a carbon adsorber is used or § 63.750(h) when a control device other than a carbon adsorber is used. Each control system installed on or after the effective date shall reduce organic HAP emissions to the

atmosphere by 95% or greater. Reduction shall take into account capture and destruction or removal efficiencies, and the volume of chemical stripper used (e.g., the 95% efficiency may be achieved by controlling emissions at 81% efficiency with a control system and using 74% less stripper than in baseline applications). The baseline shall be calculated using data from 1996 and 1997, which shall be on a usage per aircraft or usage per square foot of surface basis.

§ 63.747 Standards: Chemical milling maskant application operations.

(a) Each owner or operator of a new or existing chemical milling maskant operation subject to this subpart shall comply with the requirements specified in paragraph (c) of this section for those chemical milling maskants that are uncontrolled (no control device is used to reduce organic HAP emissions from the operation) and in paragraph (d) of this section for those chemical milling maskants that are controlled (organic HAP emissions from the operation are reduced by the use of a control device).

(b) Each owner or operator shall conduct the handling and transfer of chemical milling maskants to or from containers, tanks, vats, vessels, and piping systems in such a manner that minimizes spills.

(c) *Uncontrolled maskants—organic HAP and VOC content levels.* Each owner or operator shall comply with the organic HAP and VOC content limits specified in paragraphs (c)(1) and (c)(2) of this section for each chemical milling maskant that is uncontrolled.

(1) Organic HAP emissions from chemical milling maskants shall be limited to an organic HAP content level of no more than 160 grams of organic HAP per liter (1.3 lb/gal) of chemical milling maskant (less water) as applied.

(2) VOC emissions from chemical milling maskants shall be limited to a VOC content level of no more than 160 grams of VOC per liter (1.3 lb/gal) of chemical milling maskant (less water and exempt solvents) as applied.

(3) The requirements of paragraphs (c)(1) and (c)(2) of this section do not apply to the following:

- (i) Touch-up of scratched surfaces or damaged maskant; and
- (ii) Touch-up of trimmed edges.

(d) *Controlled maskants—control system requirements.* Each control system shall reduce the operation's organic HAP and VOC emissions to the atmosphere by 81% or greater, taking into account capture and destruction or removal efficiencies, as determined using the procedures in § 63.750(g) when a carbon adsorber is used and in

§ 63.750(h) when a control device other than a carbon adsorber is used.

(e) *Compliance methods.* Compliance with the organic HAP and VOC content limits specified in paragraphs (c)(1) and (c)(2) of this section may be accomplished by using the methods specified in paragraphs (e)(1) and (e)(2) of this section either by themselves or in conjunction with one another.

(1) Use chemical milling maskants with HAP and VOC content levels equal to or less than the limits specified in paragraphs (c)(1) and (c)(2) of this section.

(2)(i) Use any combination of chemical milling maskants such that the monthly volume-weighted average organic HAP and VOC contents of the maskants comply with the specified content limits, unless the permitting agency specifies a shorter averaging period as part of an ambient ozone control program.

(ii) Averaging is allowed only for uncontrolled chemical milling maskants.

(iii) Each averaging scheme shall be approved in advance by the permitting agency and be adopted as part of the facility's title V permit.

§ 63.748 Standards: Handling and storage of waste.

Except as provided in § 63.741(e), the owner or operator of each facility subject to this subpart that produces a waste that contains HAP shall conduct the handling and transfer of the waste to or from containers, tanks, vats, vessels, and piping systems in such a manner that minimizes spills.

§ 63.749 Compliance dates and determinations.

(a) *Compliance dates.* Each owner or operator of an existing source subject to this subpart shall comply with the requirements of this subpart within 3 years after the effective date. Owners or operators of new sources subject to this subpart shall comply on the effective date or upon startup, whichever is later. In addition, each owner or operator shall comply with the compliance dates specified in § 63.6(b) and § 63.6(c).

(b) *General.* Each facility subject to this subpart shall be considered in noncompliance if the owner or operator fails to submit an operation and maintenance plan as required by § 63.743(b) or uses a control device other than one specified in this subpart that has not been approved by the Administrator, as required by § 63.743(c).

(c) *Cleaning operations.* Each cleaning operation subject to this subpart shall be considered in noncompliance if the

owner or operator fails to institute and carry out the housekeeping measures required under § 63.744(a). Incidental emissions resulting from the activation of pressure release vents and valves on enclosed cleaning systems are exempt from this paragraph.

(1) *Hand-wipe cleaning.* An affected hand-wipe cleaning operation shall be considered in compliance when all hand-wipe cleaning solvents, excluding those used for hand cleaning of spray gun equipment under § 63.744(c)(3), meet either the composition requirements specified in § 63.744(b)(1) or the vapor pressure requirement specified in § 63.744(b)(2).

(2) *Spray gun cleaning.* An affected spray gun cleaning operation shall be considered in compliance when each of the following conditions is met:

(i) One of the four techniques specified in § 63.744 (c)(1) through (c)(4) is used;

(ii) The technique selected is operated according to the procedures specified in § 63.744 (c)(1) through (c)(4) as appropriate; and

(iii) If an enclosed system is used, monthly visual inspections are conducted and any leak detected is repaired within 15 days after detection. If the leak is not repaired by the 15th day after detection, the solvent shall be removed and the enclosed cleaner shall be shut down until the cleaner is repaired or its use is permanently discontinued.

(3) *Flush cleaning.* An affected flush cleaning operation shall be considered in compliance if the operating requirements specified in § 63.744(d) are implemented and carried out.

(d) *Organic HAP and VOC content levels—primer and topcoat application operations.*

(1) *Performance test periods.* For uncontrolled coatings that are not averaged, each 24 hours is considered a performance test. For compliant and non-compliant coatings that are averaged together, each 30-day period is considered a performance test, unless the permitting agency specifies a shorter averaging period as part of an ambient ozone control program. When using a control device other than a carbon adsorber, three 1-hour runs constitute the test period for the initial and any subsequent performance test. When using a carbon adsorber, each rolling material balance period is considered a performance test.

(2) *Initial performance tests.* If a control device is used, each owner or operator shall conduct an initial performance test to demonstrate compliance with the overall reduction efficiency specified in paragraph

§ 63.745, unless a waiver is obtained under either § 63.7(e)(2)(iv) or § 63.7(h). The initial performance test shall be conducted according to the procedures and test methods specified in § 63.7 and § 63.750(g) for carbon adsorbers and in § 63.750(h) for control devices other than carbon adsorbers. For carbon adsorbers, the initial performance test shall be used to establish the appropriate rolling material balance period for determining compliance. The procedures in paragraphs (d)(2)(i) through (d)(2)(vi) of this section shall be used in determining initial compliance with the provisions of this subpart for carbon adsorbers.

(i)(A) When either EPA Method 18 or EPA Method 25A is to be used in the determination of the efficiency of a fixed-bed carbon adsorption system with a common exhaust stack for all the individual carbon adsorber vessels pursuant to § 63.750(g) (2) or (4), the test shall consist of three separate runs, each coinciding with one or more complete sequences through the adsorption cycles of all of the individual carbon adsorber vessels.

(B) When either EPA Method 18 or EPA Method 25A is to be used in the determination of the efficiency of a fixed-bed carbon adsorption system with individual exhaust stacks for each carbon adsorber vessel pursuant to § 63.750(g) (3) or (4), each carbon adsorber vessel shall be tested individually. The test for each carbon adsorber vessel shall consist of three separate runs. Each run shall coincide with one or more complete adsorption cycles.

(ii) EPA Method 1 or 1A of appendix A of part 60 is used for sample and velocity traverses.

(iii) EPA Method 2, 2A, 2C, or 2D of appendix A of part 60 is used for velocity and volumetric flow rates.

(iv) EPA Method 3 of appendix A of part 60 is used for gas analysis.

(v) EPA Method 4 of appendix A of part 60 is used for stack gas moisture.

(vi) EPA Methods 2, 2A, 2C, 2D, 3, and 4 shall be performed, as applicable, at least twice during each test period.

(3) The primer application operation is considered in compliance when the conditions specified in paragraphs (d)(3)(i) through (d)(3)(iv) of this section, as applicable, and in paragraph (e) of this section are met. Failure to meet any one of the conditions identified in these paragraphs shall constitute noncompliance.

(i) For all uncontrolled primers, all values of H_1 and H_2 (as determined using the procedures specified in § 63.750 (c) and (d)) are less than or equal to 350 grams of organic HAP per liter (2.9 lb/

gal) of primer (less water) as applied, and all values of G_1 and G_2 (as determined using the procedures specified in § 63.750 (e) and (f)) are less than or equal to 350 grams of organic VOC per liter (2.9 lb/gal) of primer (less water and exempt solvents) as applied.

(ii) If a control device is used:

(A) The overall control system efficiency, E_x , as determined using the procedures specified in § 63.750(g) for control systems containing carbon adsorbers and in § 63.750(h) for control systems with other control devices, is equal to or greater than 81% during the initial performance test and any subsequent performance test;

(B) If an incinerator other than a catalytic incinerator is used, the average combustion temperature for all 3-hour periods is greater than or equal to the average combustion temperature established under § 63.751(b)(11); and

(C) If a catalytic incinerator is used, the average combustion temperatures for all 3-hour periods are greater than or equal to the average combustion temperatures established under § 63.751(b)(12).

(iii)(A) Uses an application technique specified in § 63.745 (f)(1)(i) through (f)(1)(viii), or

(B) Uses an alternative application technique, as allowed under § 63.745(f)(1)(ix), such that the emissions of both organic HAP and VOC for the implementation period of the alternative application method are less than or equal to the emissions generated during the initial 30-day period, the period of time required to apply primer to five completely assembled aircraft, or a time period approved by the permitting agency, using HVLP or electrostatic spray application methods as determined using the procedures specified in § 63.750(i).

(iv) Operates all application techniques in accordance with the manufacturer's specifications or locally prepared operating procedures, whichever is more stringent.

(4) The topcoat application operation is considered in compliance when the conditions specified in paragraphs (e)(4)(i) through (e)(4)(iv) of this section, as applicable, and in paragraph (f) of this section are met. Failure to meet any of the conditions identified in these paragraphs shall constitute noncompliance.

(i) For all uncontrolled topcoats, all values of H_1 and H_2 (as determined using the procedures specified in § 63.750(c) and (d)) are less than or equal to 420 grams organic HAP per liter (3.5 lb/gal) of topcoat (less water) as applied, and all values of G_1 and G_2 (as determined using the procedures specified in

§ 63.750(e) and (f) are less than or equal to 420 grams organic VOC per liter (3.5 lb/gal) of topcoat (less water and exempt solvents) as applied.

(ii) If a control device is used,

(A) The overall control system efficiency, E_k , as determined using the procedures specified in § 63.750(g) for control systems containing carbon adsorbers and in § 63.750(h) for control systems with other control devices, is equal to or greater than 81% during the initial performance test and any subsequent performance test;

(B) If an incinerator other than a catalytic incinerator is used, the average combustion temperature for all 3-hour periods is greater than or equal to the average combustion temperature established under § 63.751(b)(11); and

(C) If a catalytic incinerator is used, the average combustion temperatures for all 3-hour periods are greater than or equal to the average combustion temperatures established under § 63.751(b)(12).

(iii)(A) Uses an application technique specified in § 63.745(f)(1)(i) through (f)(1)(ix) or

(B) Uses an alternative application technique as allowed under § 63.745(f)(1)(ix) such that the emissions of both organic HAP and VOC for the implementation period of the alternative application method are less than or equal to the emissions generated during the initial 30-day period, the period of time required to apply topcoat to five completely assembled aircraft, or a time period approved by the permitting agency, using HVLP or electrostatic spray application methods as determined using the procedures specified in § 63.750(i).

(iv) Operates all application techniques in accordance with the manufacturer's specifications or locally prepared operating procedures.

(e) *Inorganic HAP emissions—primer and topcoat application operations.* For each primer or topcoat application operation that emits inorganic HAP, the operation is in compliance when:

(1) It is operated according to the requirements specified in § 63.745(g)(1) through (g)(3); and

(2) It is shut down immediately whenever the pressure drop or water flow rate is outside the limit(s) established for them and is not restarted until the pressure drop or water flow rate is returned within these limit(s), as required under § 63.745(g)(3).

(f) *Organic HAP emissions—Depainting operations.*

(1) *Performance test periods.* When using a control device other than a carbon adsorber, three 1-hour runs constitute the test period for the initial

and any subsequent performance test. When a carbon adsorber is used, each rolling material balance period is considered a performance test. Each 24-hour period is considered a performance test period for determining compliance with § 63.746(b)(1). For uncontrolled organic emissions from depainting operations, each calendar year is considered a performance test period for determining compliance with the HAP limits for organic HAP-containing chemical strippers used for spot stripping and decal removal.

(2) *Initial performance tests.* If a control device is used, each owner or operator shall conduct an initial performance test to demonstrate compliance with the overall reduction efficiency specified in § 63.746(c), unless a waiver is obtained under either § 63.7(e)(2)(iv) or § 63.7(h). The initial performance test shall be conducted according to the procedures and test methods specified in § 63.7 and § 63.750(g) for carbon adsorbers and in § 63.750(h) for control devices other than carbon adsorbers. For carbon adsorbers, the initial performance test shall be used to establish the appropriate rolling material balance period for determining compliance. The procedures in paragraphs (2)(i) through (2)(vi) of this section shall be used in determining initial compliance with the provisions of this subpart for carbon adsorbers.

(i)(A) When either EPA Method 18 or EPA Method 25A is to be used in the determination of the efficiency of a fixed-bed carbon adsorption system with a common exhaust stack for all the individual carbon adsorber vessels pursuant to § 63.750(g)(2) or (4), the test shall consist of three separate runs, each coinciding with one or more complete sequences through the adsorption cycles of all of the individual carbon adsorber vessels.

(B) When either EPA Method 18 or EPA Method 25A is to be used in the determination of the efficiency of a fixed-bed carbon adsorption system with individual exhaust stacks for each carbon adsorber vessel pursuant to § 63.750(g)(3) or (4), each carbon adsorber vessel shall be tested individually. The test for each carbon adsorber vessel shall consist of three separate runs. Each run shall coincide with one or more complete adsorption cycles.

(ii) EPA Method 1 or 1A of appendix A of part 60 is used for sample and velocity traverses.

(iii) EPA Method 2, 2A, 2C, or 2D of appendix A of part 60 is used for velocity and volumetric flow rates.

(iv) EPA Method 3 of appendix A of part 60 is used for gas analysis.

(v) EPA Method 4 of appendix A of part 60 is used for stack gas moisture.

(vi) EPA Methods 2, 2A, 2C, 2D, 3, and 4 shall be performed, as applicable, at least twice during each test period.

(3) An organic HAP-containing chemical stripper depainting operation is considered in compliance when the conditions specified in paragraph (g)(3)(i) of this section are met.

(i) If a carbon adsorber (or other control device) is used, the overall control efficiency of the control system, as determined using the procedures specified in § 63.750(g) (or other control device as determined using the procedures specified in § 63.750(h)), is equal to or greater than 81% for control systems installed before the effective date, or equal to or greater than 95% for control systems installed on or after the effective date, during the initial performance test and all subsequent material balances (or performance tests, as appropriate).

(ii) For non-HAP depainting operations complying with § 63.746(b)(1);

(A) For any spot stripping and decal removal, the value of C , as determined using the procedures specified in § 63.750(j), is less than or equal to 26 gallons of organic HAP-containing chemical stripper per aircraft depainted for commercial aircraft and is less than or equal to 50 gallons of organic HAP-containing chemical stripper per aircraft depainted for military aircraft calculated on a yearly average; and

(B) The requirements of § 63.746(b)(2) are carried out during malfunctions of non-chemical based equipment.

(g) *Inorganic HAP emissions—depainting operations.* Each depainting operation is in compliance when:

(1) The operating requirements specified in § 63.746(b)(4) are followed; and

(2) It is shut down immediately whenever the pressure drop or water flow rate is outside the limit(s) established for them and is not restarted until the pressure drop or water flow rate is returned within these limit(s), as required under § 63.746(b)(4)(v).

(h) *Chemical milling maskant application operations.*—(1) *Performance test periods.* For uncontrolled chemical milling maskants that are not averaged, each 24-hour period is considered a performance test. For compliant and noncompliant chemical milling maskants that are averaged together, each 30-day period is considered a performance test, unless the permitting agency specifies a shorter period as part of an ambient ozone

control program. When using a control device other than a carbon adsorber, three 1-hour runs constitute the test period for the initial and any subsequent performance test. When a carbon adsorber is used, each rolling material balance period is considered a performance test.

(2) *Initial performance tests.* If a control device is used, each owner or operator shall conduct an initial performance test to demonstrate compliance with the overall reduction efficiency specified in § 63.747(d), unless a waiver is obtained under either § 63.7(e)(2)(iv) or § 63.7(h). The initial performance test shall be conducted according to the procedures and test methods specified in § 63.7 and § 63.750(g) for carbon adsorbers and in § 63.750(h) for control devices other than carbon adsorbers. For carbon adsorbers, the initial performance test shall be used to establish the appropriate rolling material balance period for determining compliance. The procedures in paragraphs (h)(2)(i) through (vi) of this section shall be used in determining initial compliance with the provisions of this subpart for carbon adsorbers.

(i)(A) When either EPA Method 18 or EPA Method 25A is to be used in the determination of the efficiency of a fixed-bed carbon adsorption system with a common exhaust stack for all the individual carbon adsorber vessels pursuant to § 63.750(g) (2) or (4), the test shall consist of three separate runs, each coinciding with one or more complete sequences through the adsorption cycles of all of the individual carbon adsorber vessels.

(B) When either EPA Method 18 or EPA Method 25A is to be used in the determination of the efficiency of a fixed-bed carbon adsorption system with individual exhaust stacks for each carbon adsorber vessel pursuant to § 63.750(g) (3) or (4), each carbon adsorber vessel shall be tested individually. The test for each carbon adsorber vessel shall consist of three separate runs. Each run shall coincide with one or more complete adsorption cycles.

(ii) EPA Method 1 or 1A of appendix A of part 60 is used for sample and velocity traverses.

(iii) EPA Method 2, 2A, 2C, or 2D of appendix A of part 60 is used for velocity and volumetric flow rates.

(iv) EPA Method 3 of appendix A of part 60 is used for gas analysis.

(v) EPA Method 4 of appendix A of part 60 is used for stack gas moisture.

(vi) EPA Methods 2, 2A, 2C, 2D, 3, and 4 shall be performed, as applicable, at least twice during each test period.

(3) The chemical milling maskant application operation is considered in compliance when the conditions specified in paragraphs (i)(3)(i) and (i)(3)(ii) of this section are met.

(i) For all uncontrolled chemical milling maskants, all values of H_1 and H_2 (as determined using the procedures specified in § 63.750 (k) and (l)) are less than or equal to 160 grams of organic HAP per liter (1.3 lb/gal) as applied (less water) and all values of G_1 and G_2 (as determined using the procedures specified in § 63.750 (m) and (n)) are less than or equal to 160 grams of VOC per liter (1.3 lb/gal) of chemical milling maskant (less water and exempt solvents) as applied.

(ii) If a carbon adsorber (or other control device) is used, the overall control efficiency of the control system, as determined using the procedures specified in § 63.750(g) (or systems with other control devices as determined using the procedures specified in § 63.750(h)), is equal to or greater than 81% during the initial performance test period and all subsequent material balances (or performance tests, as appropriate).

(i) *Handling and storage of waste.* For those wastes subject to this subpart, failure to comply with the requirements specified in § 63.748 shall be considered a violation.

§ 63.750 Test methods and procedures.

(a) *Composition determination.* Compliance with the hand-wipe cleaning solvent approved composition list specified in § 63.744(b)(1) for hand-wipe cleaning solvents shall be demonstrated using data supplied by the manufacturer of the cleaning solvent. The data shall identify all components of the cleaning solvent and shall demonstrate that one of the approved composition definitions is met.

(b) *Vapor pressure determination.* The composite vapor pressure of hand-wipe cleaning solvents used in a cleaning operation subject to this subpart shall be determined as follows:

(1) For single-component hand-wipe cleaning solvents, the vapor pressure shall be determined using MSDS or other manufacturer's data, standard engineering reference texts, or other equivalent methods.

(2) The composite vapor pressure of a blended hand-wipe solvent shall be determined by quantifying the amount of each organic compound in the blend using manufacturer's supplied data or a gas chromatographic analysis in accordance with ASTM E 260-91 (incorporated by reference as specified in § 63.14 of subpart A of this part) and

by calculating the composite vapor pressure of the solvent by summing the partial pressures of each component. The vapor pressure of each component shall be determined using manufacturer's data, standard engineering reference texts, or other equivalent methods. The following equation shall be used to determine the composite vapor pressure:

$$PP_c = \sum_{i=1}^n \frac{(W_i)(VP_i) / MW_i}{\frac{W_w}{MW_w} + \frac{W_e}{MW_e} + \sum_{i=1}^n \frac{W_i}{MW_i}}$$

where:

W_i =Weight of the "i"th VOC compound, grams.

W_w =Weight of water, grams.

W_e =Weight of non-HAP, nonVOC compound, grams.

MW_i =Molecular weight of the "i"th VOC compound, g/g-mole.

MW_w =Molecular weight of water, g/g-mole.

MW_e =Molecular weight of exempt compound, g/g-mole.

PP_c =VOC composite partial pressure at 20 °C, mm Hg.

VP_i =Vapor pressure of the "i"th VOC compound at 20 °C, mm Hg.

(c) *Organic HAP content level determination—compliant primers and topcoats.* For those uncontrolled primers and topcoats complying with the primer and topcoat organic HAP content limits specified in § 63.745(c) without being averaged, the following procedures shall be used to determine the mass of organic HAP emitted per volume of coating (less water) as applied.

(1) For coatings that contain no exempt solvents, determine the total organic HAP content using manufacturer's supplied data or Method 24 of 40 CFR part 60, appendix A to determine the VOC content. The VOC content shall be used as a surrogate for total HAP content for coatings that contain no exempt solvent. If there is a discrepancy between the manufacturer's formulation data and the results of the Method 24 analysis, compliance shall be based on the results from the Method 24 analysis.

When Method 24 is used to determine the VOC content of water-reducible coatings, the precision adjustment factors in Reference Method 24 shall be used. If the adjusted analytical VOC content is less than the formulation solvent content, then the analytical VOC content should be set equal to the formulation solvent content.

(2) For each coating formulation as applied, determine the organic HAP weight fraction, water weight fraction (if

applicable), and density from manufacturer's data. If these values cannot be determined using the manufacturer's data, the owner or operator shall submit an alternative procedure for determining their values for approval by the Administrator. Recalculation is required only when a change occurs in the coating formulation.

(3) For each coating as applied, calculate the mass of organic HAP emitted per volume of coating (lb/gal) less water as applied using equations 1, 2, and 3:

$$V_{wi} = \frac{D_{ci} W_{wi}}{D_w} \quad \text{Eq. 1}$$

where

V_{wi} =volume (gal) of water in one gal of coating i.

D_{ci} =density (lb of coating per gal of coating) of coating i.

W_{wi} =weight fraction (expressed as a decimal) of water in coating i.

D_w =density of water, 8.33 lb/gal.

$$M_{Hi} = D_{ci} W_{Hi} \quad \text{Eq. 2}$$

where

M_{Hi} =mass (lb) of organic HAP in one gal of coating i.

D_{ci} =density (lb of coating per gal of coating) of coating i.

W_{Hi} =weight fraction (expressed as a decimal) of organic HAP in coating i.

$$H_i = \frac{M_{Hi}}{(1 - V_{wi})} \quad \text{Eq. 3}$$

where

H_i =mass of organic HAP emitted per volume of coating i (lb/gal) less water as applied.

M_{Hi} =mass (lb) of organic HAP in one gal of coating i.

V_{wi} =volume (gal) of water in one gal of coating i.

(d) *Organic HAP content level determination—averaged primers and topcoats.* For those uncontrolled primers and topcoats that are averaged together in order to comply with the primer and topcoat organic HAP content limits specified in § 63.745(c), the following procedure shall be used to determine the monthly volume-weighted average mass of organic HAP emitted per volume of coating (less water) as applied, unless the permitting agency specifies a shorter averaging period as part of an ambient ozone control program.

(1)(i) Determine the total organic HAP weight fraction as applied of each coating. If any ingredients, including diluent solvent, are added to a coating

prior to its application, the organic HAP weight fraction of the coating shall be determined at a time and location in the process after all ingredients have been added.

(ii) Determine the total organic HAP weight fraction of each coating as applied each month.

(A) If no changes have been made to a coating, either as supplied or as applied, or if a change has been made that has a minimal effect on the organic HAP content of the coating, the value previously determined may continue to be used until a change in formulation has been made by either the manufacturer or the user.

(B) If a change in formulation or a change in the ingredients added to the coating takes place, including the ratio of coating to diluent solvent, prior to its application, either of which results in a more than minimal effect on the organic HAP content of the coating, the total organic HAP weight fraction of the coating shall be redetermined.

(iii) Manufacturer's formulation data may be used to determine the total organic HAP content of each coating and any ingredients added to the coating prior to its application. If the total organic HAP content cannot be determined using the manufacturer's data, the owner or operator shall submit an alternative procedure for determining the total organic HAP weight fraction for approval by the Administrator.

(2)(i) Determine the volume both in total gallons as applied and in total gallons (less water) as applied of each coating. If any ingredients, including diluent solvents, are added prior to its application, the volume of each coating shall be determined at a time and location in the process after all ingredients (including any diluent solvent) have been added.

(ii) Determine the volume of each coating (less water) as applied each month, unless the permitting agency specifies a shorter period as part of an ambient ozone control program.

(iii) The volume applied may be determined from company records.

(3)(i) Determine the density of each coating as applied. If any ingredients, including diluent solvent, are added to a coating prior to its application, the density of the coating shall be determined at a time and location in the process after all ingredients have been added.

(ii) Determine the density of each coating as applied each month, unless the permitting agency specifies a shorter period as part of an ambient ozone control program.

(A) If no changes have been made to a coating, either as supplied or as

applied, or if a change has been made that has a minimal effect on the density of the coating, then the value previously determined may continue to be used until a change in formulation has been made by either the manufacturer or the user.

(B) If a change in formulation or a change in the ingredients added to the coating takes place, including the ratio of coating to diluent solvent, prior to its application, either of which results in a more than minimal effect on the density of the coating, then the density of the coating shall be redetermined.

(iii) The density may be determined from company records, including manufacturer's data sheets. If the density of the coating cannot be determined using the company's records, including the manufacturer's data, then the owner or operator shall submit an alternative procedure for determining the density for approval by the Administrator.

(4) Calculate the total volume in gallons as applied (less water) by summing the individual volumes of each coating (less water) as applied, which were determined under paragraph (d)(2) of this section.

(5) Calculate the volume-weighted average mass of organic HAP in coatings emitted per unit volume (lb/gal) of coating (less water) as applied during each 30-day period using equation 4:

$$H_a = \frac{\sum_{i=1}^n W_{Hi} D_{ci} V_{ci}}{C_{lw}} \quad \text{Eq. 4}$$

where

H_a =volume-weighted average mass of organic HAP emitted per unit volume of coating (lb/gal) (less water) as applied during each 30-day period for those coatings being averaged.

n =number of coatings being averaged.

W_{Hi} =weight fraction (expressed as a decimal) of organic HAP in coating i as applied that is being averaged during each 30-day period.

D_{ci} =density (lb of coating per gal of coating) of coating i as applied that is being averaged during each 30-day period.

V_{ci} =volume (gal) of coating i as applied that is being averaged during the 30-day period.

C_{lw} =total volume (gal) of all coatings (less water) as applied that are being averaged during each 30-day period.

(e) *VOC content level determination—compliant primers and topcoats.* For those uncontrolled primers and topcoats

complying with the primer and topcoat VOC content levels specified in § 63.745(c) without being averaged, the following procedure shall be used to determine the mass of VOC emitted per volume of coating (less water and exempt solvents) as applied.

(1) Determine the VOC content of each formulation (less water and exempt solvents) as applied using manufacturer's supplied data or Method 24 of 40 CFR part 60, appendix A to determine the VOC content. The VOC content shall be used as a surrogate for total HAP content for coatings that contain no exempt solvent. If there is a discrepancy between the manufacturer's formulation data and the results of the Method 24 analysis, compliance shall be based on the results from the Method 24 analysis.

When Method 24 is used to determine the VOC content of water-reducible coatings, the precision adjustment factors in Reference Method 24 shall be used. If the adjusted analytical VOC content is less than the formulation solvent content, then the analytical VOC content should be set equal to the formulation solvent content.

(2) For each coating applied, calculate the mass of VOC emitted per volume of coating (lb/gal) (less water and exempt solvents) as applied using equations 5, 6, and 7:

$$V_{wi} = \frac{D_{ci} W_{wi}}{D_w} \quad \text{Eq. 5}$$

where

V_{wi} =volume (gal) of water in one gal of coating i.

D_{ci} =density (lb of coating per gal of coating) of coating i.

W_{wi} =weight fraction (expressed as a decimal) of water in coating i.

D_w =density of water, 8.33 lb/gal.

$$M_{Vi} = D_{ci} W_{Vi} \quad \text{Eq. 6}$$

where

M_{Vi} =mass (lb) of VOC in one gal of coating i.

D_{ci} =density (lb of coating per gal of coating) of coating i.

W_{Vi} =weight fraction (expressed as a decimal) of VOC in coating i.

$$G_i = \frac{M_{Vi}}{(1 - V_{wi})} \quad \text{Eq. 7}$$

where

G_i =mass of VOC emitted per volume of coating i (lb/gal) (less water and exempt solvents) as applied.

M_{Vi} =mass (lb) of VOC in one gal of coating i.

V_{wi} =volume (gal) of water in one gal of coating i.

V_{xi} =volume (gal) of exempt solvents in one gal of coating i.

(3)(i) If the VOC content is found to be different when EPA Method 24 is used during an enforcement inspection from that used by the owner or operator in calculating G_a , compliance shall be based, except as provided in paragraph (e)(3)(ii) of this section, upon the VOC content obtained using EPA Method 24.

(ii) If the VOC content of a coating obtained using Method 24 would indicate noncompliance as determined under either § 63.749 (d)(3)(i) or (d)(4)(i), an owner or operator may elect to average the coating with other uncontrolled coatings and (re)calculate G_i (using the procedure specified in paragraph (f) of this section), provided appropriate and sufficient records were maintained for all coatings included in the average (re)calculation. The (re)calculated value of G_i (G_a in paragraph (f) for the averaged coatings shall then be used to determine compliance.

(f) *VOC content level determination—averaged primers and topcoats.* For those uncontrolled primers and topcoats that are averaged within their respective coating category in order to comply with the primer and topcoat VOC content limits specified in § 63.745 (c)(2) and (c)(4), the following procedure shall be used to determine the monthly volume-weighted average mass of VOC emitted per volume of coating (less water and exempt solvents) as applied, unless the permitting agency specifies a shorter averaging period as part of an ambient ozone control program.

(1)(i) Determine the VOC content (lb/gal) as applied of each coating. If any ingredients, including diluent solvent, are added to a coating prior to its application, the VOC content of the coating shall be determined at a time and location in the process after all ingredients have been added.

(ii) Determine the VOC content of each coating as applied each month, unless the permitting agency specifies a shorter period as part of an ambient ozone control program.

(A) If no changes have been made to a coating, either as supplied or as applied, or if a change has been made that has a minimal effect on the VOC content of the coating, the value previously determined may continue to be used until a change in formulation has been made by either the manufacturer or the user.

(B) If a change in formulation or a change in the ingredients added to the coating takes place, including the ratio of coating to diluent solvent, prior to its application, either of which results in a

more than minimal effect on the VOC content of the coating, the VOC content of the coating shall be redetermined.

(iii) Determine the VOC content of each primer and topcoat formulation (less water and exempt solvents) as applied using EPA Method 24 or from manufacturer's data.

(2)(i) Determine the volume both in total gallons as applied and in total gallons (less water and exempt solvents) as applied of each coating. If any ingredients, including diluent solvents, are added prior to its application, the volume of each coating shall be determined at a time and location in the process after all ingredients (including any diluent solvent) have been added.

(ii) Determine the volume of each coating (less water and exempt solvents) as applied each day.

(iii) The volume applied may be determined from company records.

(3) Calculate the total volume in gallons (less water and exempt solvents) as applied by summing the individual volumes of each coating (less water and exempt solvents) as applied, which were determined under paragraph (f)(2) of this section.

(4) Calculate the volume-weighted average mass of VOC emitted per unit volume (lb/gal) of coating (less water and exempt solvents) as applied for each coating category during each 30-day period using equation 8:

$$G_a = \frac{\sum_{i=1}^n (\text{VOC})_{ci} V_{ci}}{C_{\text{VOCs}}} \quad \text{Eq. 8}$$

where

G_a =volume weighted average mass of VOC per unit volume of coating (lb/gal) (less water and exempt solvents) as applied during each 30-day period for those coatings being averaged.

n =number of coatings being averaged.
(VOC)_{ci}=VOC content (lb/gal) of coating i (less water and exempt solvents) as applied (as determined using the procedures specified in paragraph (f)(1) of this section) that is being averaged during the 30-day period.

V_{ci} =volume (gal) of coating i (less water and exempt solvents) as applied that is being averaged during the 30-day period.

C_{VOCs} =total volume (gal) of all coatings (less water and exempt solvents) as applied during each 30-day period for those coatings being averaged.

(5)(i) If the VOC content is found to be different when EPA Method 24 is used during an enforcement inspection from that used by the owner or operator

in calculating G_a , recalculation of G_a is required using the new value. If more than one coating is involved, the recalculation shall be made once using all of the new values.

(ii) If recalculation is required, an owner or operator may elect to include in the recalculation of G_a uncontrolled coatings that were not previously included provided appropriate and sufficient records were maintained for these other coatings to allow daily recalculations.

(iii) The recalculated value of G_a under either paragraph (f)(5)(i) or (f)(5)(ii) of this section shall be used to determine compliance.

(g) *Overall VOC and/or organic HAP control efficiency—carbon adsorber.* Each owner or operator subject to the requirements of § 63.745(d), § 63.746(c), or § 63.747(d) shall demonstrate initial compliance with the requirements of this subpart by following the procedures of paragraph (g)(1), (2), (3), (4), or (5) as applicable and paragraphs (6), (7), and (8) of this section. When an initial compliance demonstration is required by this subpart, the procedures in paragraphs (g)(9) through (g)(14) of this section shall be used in determining initial compliance with the provisions of this subpart.

(1) To demonstrate initial and continuous compliance with § 63.745(d), § 63.746(c), or § 63.747(d) when emissions are controlled by a dedicated solvent recovery device, each owner or operator of the affected operation may perform a liquid-liquid HAP or VOC material balance over rolling 7- to 30-day periods in lieu of demonstrating compliance through the methods in paragraph (g)(2), (g)(3), or (g)(4) of this section. Results of the material balance calculations performed to demonstrate initial compliance shall be submitted to the Administrator with the notification of compliance status required by § 63.9(h) and by § 63.753 (c)(1)(iv), (d)(3)(i), and (e)(3). When demonstrating compliance by this procedure, § 63.7(e)(3) of subpart A does not apply. The amount of liquid HAP or VOC applied and recovered shall be determined as discussed in paragraph (g)(1)(iii) of this section. The overall HAP or VOC emission reduction (R) is calculated using equation 9:

$$R = \frac{M_r}{\sum_{i=1}^n [W_{oi} M_{ci} - RS_i]} \times 100 \quad \text{Eq. 9}$$

(i) The value of RS_i is zero unless the owner or operator submits the following information to the Administrator for

approval of a measured RS_i value that is greater than zero:

(A) Measurement techniques; and
(B) Documentation that the measured value of RS_i exceeds zero.

(ii) The measurement techniques of paragraph (g)(1)(i)(A) of this section shall be submitted to the Administrator for approval with the notification of performance test required under § 63.7(b).

(iii) Each owner or operator demonstrating compliance by the test method described in paragraph (g)(1) of this section shall:

(A) Measure the amount of coating or stripper as applied;

(B) Determine the VOC or HAP content of all coating and stripper applied using the test method specified in § 63.750(c) (1) through (3) or (e) (1) and (2) of this section;

(C) Install, calibrate, maintain, and operate, according to the manufacturer's specifications, a device that indicates the amount of HAP or VOC recovered by the solvent recovery device over rolling 7- to 30-day periods; the device shall be certified by the manufacturer to be accurate to within ± 2.0 percent, and this certification shall be kept on record;

(D) Measure the amount of HAP or VOC recovered; and

(E) Calculate the overall HAP or VOC emission reduction (R) for rolling 7- to 30-day periods using equation 9.

(F) Compliance is demonstrated if the value of R is equal to or greater than the overall HAP control efficiencies required by § 63.745(d), § 63.746(c), or § 63.747(d).

(2) To demonstrate initial compliance with § 63.745(d), § 63.746(c), or § 63.747(d) when affected HAP emission points are controlled by an emission control device other than a fixed-bed carbon adsorption system with individual exhaust stacks for each carbon adsorber vessel, each owner or operator of an affected source shall perform a gaseous emission test using the following procedures.

(i) Construct the overall HAP emission reduction system so that all volumetric flow rates and total HAP or VOC emissions can be accurately determined by the applicable test methods and procedures specified in § 63.750(g) (9) through (14).

(ii) Determine capture efficiency from the HAP emission points by capturing, venting, and measuring all HAP emissions from the HAP emission points. During a performance test, the owner or operator of affected HAP emission points located in an area with other gaseous emission sources not affected by this subpart shall isolate the affected HAP emission points from all

other gaseous emission points by one of the following methods:

(A) Build a temporary total enclosure around the affected HAP emission point(s); or

(B) Shut down all gaseous emission points not affected by this subpart and continue to exhaust fugitive emissions from the affected HAP emission points through any building ventilation system and other room exhausts such as drying ovens. All ventilation air must be vented through stacks suitable for testing.

(iii) Operate the emission control device with all affected HAP emission points connected and operating.

(iv) Determine the efficiency (E) of the control device using equation 10:

(v) Determine the efficiency (F) of the capture system using equation 11:

$$E = \frac{\sum_{i=1}^n Q_{bi} C_{bi} - \sum_{j=1}^P Q_{aj} C_{aj}}{\sum_{i=1}^n Q_{bi} C_{bi}} \quad \text{Eq. 10}$$

$$F = \frac{\sum_{i=1}^n Q_{di} C_{di}}{\sum_{i=1}^n Q_{di} C_{di} + \sum_{k=1}^P Q_{fk} C_{fk}} \quad \text{Eq. 11}$$

(vi) For each HAP emission point subject to § 63.745(d), § 63.746(c), or § 63.747(d), compliance is demonstrated if the product of (E) $\times$ (F) is equal to or greater than the overall HAP control efficiencies required under § 63.745(d), § 63.746(c), or § 63.747(d).

(3) To demonstrate compliance with § 63.745(d), § 63.746(c), or § 63.747(d) when affected HAP emission points are controlled by a fixed-bed carbon adsorption system with individual exhaust stacks for each carbon adsorber vessel, each owner or operator of an affected source shall perform a gaseous emission test using the following procedures:

(i) Construct the overall HAP emission reduction system so that each volumetric flow rate and the total HAP emissions can be accurately determined by the applicable test methods and procedures specified in § 63.750(g) (9) through (14);

(ii) Assure that all HAP emissions from the affected HAP emission point(s) are segregated from gaseous emission points not affected by this subpart and that the emissions can be captured for measurement, as described in § 63.705(g)(2)(ii) (A) and (B);

(iii) Operate the emission control device with all affected HAP emission points connected and operating;

(iv) Determine the efficiency (H_v) of each individual carbon adsorber vessel

(v) using equation 12:

$$H_v = \frac{Q_{gv} C_{gv} - Q_{hv} C_{hv}}{Q_{gv} C_{gv}} \quad \text{Eq. 12}$$

(v) Determine the efficiency of the carbon adsorption system (H_{sys}) by computing the average efficiency of the individual carbon adsorber vessels as weighted by the volumetric flow rate (Q_{hv}) of each individual carbon adsorber vessel (v) using equation 13:

$$H_{sys} = \frac{\sum_{v=1}^q H_v Q_{hv}}{\sum_{v=1}^q Q_{hv}} \quad \text{Eq. 13}$$

(vi) Determine the efficiency (F) of the capture system using equation 11.

(vii) For each HAP emission point subject to § 63.745(d), § 63.746(c), or § 63.747(d), compliance is demonstrated if the product of (H_{sys}) × (F) is equal to or greater than the overall HAP control efficiency required by § 63.745(d), § 63.746(c), or § 63.747(d).

(4) An alternative method of demonstrating compliance with § 63.745(d), § 63.746(c), or § 63.747(d) is the installation of a total enclosure around the affected HAP emission point(s) and the ventilation of all HAP emissions from the total enclosure to a control device with the efficiency specified in paragraph (g)(4)(iii) of this section. If this method is selected, the compliance test methods described in paragraphs (g)(1), (g)(2), and (g)(3) of this section are not required. Instead, each owner or operator of an affected source shall:

(i) Demonstrate that a total enclosure is installed. An enclosure that meets the requirements in paragraphs (g)(4)(i) (A) through (D) of this section shall be considered a total enclosure. The owner or operator of an enclosure that does not meet these requirements may apply to the Administrator for approval of the enclosure as a total enclosure on a case-by-case basis. The enclosure shall be considered a total enclosure if it is demonstrated to the satisfaction of the Administrator that all HAP emissions from the affected HAP emission point(s) are contained and vented to the control device. The requirements for automatic approval are as follows:

(A) The total area of all natural draft openings shall not exceed 5% of the

total surface area of the total enclosure's walls, floor, and ceiling;

(B) All sources of emissions within the enclosure shall be a minimum of four equivalent diameters away from each natural draft opening;

(C) The average inward face velocity (FV) across all natural draft openings shall be a minimum of 3,600 meters per hour as determined by the following procedures:

(1) All forced makeup air ducts and all exhaust ducts are constructed so that the volumetric flow rate in each can be accurately determined by the test methods and procedures specified in § 63.750(g) (10) and (11); volumetric flow rates shall be calculated without the adjustment normally made for moisture content; and

(2) Determine FV by equation 14:

$$FV = \frac{\sum_{j=1}^n Q_{outj} - \sum_{i=1}^p Q_{in i}}{\sum_{k=1}^q A_k} \quad \text{Eq. 14}$$

(D) The air passing through all natural draft openings shall flow into the enclosure continuously. If FV is less than or equal to 9,000 meters per hour, the continuous inward flow of air shall be verified by continuous observation using smoke tubes, streamers, tracer gases, or other means approved by the Administrator over the period that the volumetric flow rate tests required to determine FV are carried out. If FV is greater than 9,000 meters per hour, the direction of airflow through the natural draft openings shall be presumed to be inward at all times without verification.

(ii) Determine the control device efficiency using equation 10 or equations 12 and 13, as applicable, and the test methods and procedures specified in § 63.750(g) (9) through (14).

(iii) Compliance shall be achieved if the installation of a total enclosure is demonstrated and the value of E determined from equation 10 (or the value of H_{sys} determined from equations 12 and 13, as applicable) is equal to or greater than the overall HAP control efficiencies required under § 63.745(d), § 63.746(c), or § 63.747(d).

(5) When nonregenerative carbon adsorbers are used to comply with § 63.745(d), § 63.746(c), or § 63.747(d), the owner or operator may conduct a design evaluation to demonstrate initial compliance in lieu of following the compliance test procedures of paragraphs (g)(1), (2), (3), and (4) of this section. The design evaluation shall consider the vent stream composition, component concentrations, flow rate,

relative humidity, and temperature, and shall establish the design exhaust vent stream organic compound concentration level, capacity of the carbon bed, type and working capacity of activated carbon used for the carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and the emission point operating schedule.

(6)(i) To demonstrate initial compliance with § 63.745(d), § 63.746(c), or § 63.747(d) when hard piping or ductwork is used to direct VOC and HAP emissions from a VOC and HAP source to the control device, each owner or operator shall demonstrate upon inspection that the criteria of paragraph (g)(6)(i)(A) and paragraph (g)(6)(i) (B) or (C) of this section VR/FD are met.

(A) The equipment shall be vented to a control device.

(B) The control device efficiency (E or H_{sys} , as applicable) determined using equation 10 or equations 12 and 13, respectively, and the test methods and procedures specified in § 63.750(g) (9) through (14), shall be equal to or greater than the overall HAP control efficiency required by § 63.745(d), § 63.746(c), or § 63.747(d).

(C) When a nonregenerative carbon adsorber is used, the ductwork from the affected emission point(s) shall be vented to the control device and the carbon adsorber shall be demonstrated, through the procedures of § 63.750(g) (1), (2), (3), (4), or (5), to meet the requirements of § 63.745(d), § 63.746(c), or § 63.747(d).

(7) Startups and shutdowns are normal operation for this source category. Emissions from these activities are to be included when determining if the standards specified in § 63.745(d), § 63.746(c), or § 63.747(d) are being attained.

(8) An owner or operator who uses compliance techniques other than those specified in this subpart shall submit a description of those compliance procedures, subject to the Administrator's approval, in accordance with § 63.7(f) of subpart A.

(9) Either EPA Method 18 or EPA Method 25A of appendix A of part 60, as appropriate to the conditions at the site, shall be used to determine VOC and HAP concentration of air exhaust streams as required by § 63.750(g) (1) through (6). The owner or operator shall submit notice of the intended test method to the Administrator for approval along with the notification of the performance test required under § 63.7(b). Method selection shall be based on consideration of the diversity of organic species present and their total

concentration and on consideration of the potential presence of interfering gases. Except as indicated in paragraphs (g)(9) (i) and (ii) of this section, the test shall consist of three separate runs, each lasting a minimum of 30 minutes.

(i) When either EPA Method 18 or EPA Method 25A is to be used in the determination of the efficiency of a fixed-bed carbon adsorption system with a common exhaust stack for all the individual carbon adsorber vessels pursuant to § 63.750(g) (2) or (3), the test shall consist of three separate runs, each coinciding with one or more complete sequences through the adsorption cycles of all of the individual carbon adsorber vessels.

(ii) When either EPA Method 18 or EPA Method 25A is to be used in the determination of the efficiency of a fixed-bed carbon adsorption system with individual exhaust stacks for each carbon adsorber vessel pursuant to § 63.750(g) (3) or (4), each carbon adsorber vessel shall be tested individually. The test for each carbon adsorber vessel shall consist of three separate runs. Each run shall coincide with one or more complete adsorption cycles.

(10) EPA Method 1 or 1A of appendix A of part 60 is used for sample and velocity traverses.

(11) EPA Method 2, 2A, 2C, or 2D of appendix A of part 60 is used for velocity and volumetric flow rates.

(12) EPA Method 3 of appendix A of part 60 is used for gas analysis.

(13) EPA Method 4 of appendix A of part 60 is used for stack gas moisture.

(14) EPA Methods 2, 2A, 2C, 2D, 3, and 4 shall be performed, as applicable, at least twice during each test period.

(h) *Overall VOC and/or organic HAP control efficiency—control devices other than carbon adsorbers.* Calculate the overall control efficiency of a control system with a control device other than a carbon adsorber using the following procedure.

(1) Calculate the overall control efficiency using equation 15:

$$E_k = R_k F_k \quad \text{Eq. 15}$$

where

E_k =overall VOC and/or organic HAP control efficiency (expressed as a decimal) of control system k.

R_k =destruction or removal efficiency (expressed as a decimal) of total organic compounds or total organic HAP for control device k as determined under paragraph (h)(2) of this section.

F_k =capture efficiency (expressed as a decimal) of capture system k as determined under paragraph (h)(3) of this section.

(2) The organic HAP destruction or removal efficiency R_k of a control device other than a carbon adsorber shall be determined using the procedures described below. The destruction efficiency may be measured as either total organic HAP or as TOC minus methane and ethane according to these procedures.

(i) Use Method 1 or 1A of 40 CFR part 60, appendix A, as appropriate, to select the sampling sites.

(ii) Determine the gas volumetric flow rate using Method 2, 2A, 2C, or 2D of 40 CFR part 60, appendix A, as appropriate.

(iii) Use Method 18 of 40 CFR part 60, appendix A, to measure either TOC minus methane and ethane or total organic HAP. Alternatively, any other method or data that have been validated according to the applicable procedures in Method 301 of this part may be used.

(iv) Use the following procedure to calculate the destruction or removal efficiency:

(A) The destruction or removal efficiency test shall consist of three runs. The minimum sampling time for each run shall be 1 hour in which either an integrated sample or a minimum of four grab samples shall be taken. If grab sampling is used, the samples shall be taken at approximately equal intervals in time such as 15-minute intervals during the run.

(B) Calculate the mass rate of either TOC (minus methane and ethane) or total organic HAP (E_i , E_o) using equations 16 and 17:

$$E_i = K_2 \left(\sum_{j=1}^n C_{ij} M_{ij} \right) Q_i \quad \text{Eq. 16}$$

$$E_o = K_2 \left(\sum_{j=1}^n C_{oj} M_{oj} \right) Q_o \quad \text{Eq. 17}$$

where

E_i , E_o =mass rate of TOC (minus methane and ethane) or total organic HAP at the inlet and outlet of the control device, respectively, dry basis, kg/hr.

K_2 =constant, 2.494×10^{-6} (parts per million)⁻¹ (gram-mole per standard cubic meter) (kilogram/gram) (minute/hour), where standard temperature for (gram-mole per standard cubic meter) is 20° C.

n =number of sample components in the gas stream.

C_{ij} , C_{oj} =concentration of sample component j of the gas stream at the inlet and outlet of the control

device, respectively, dry basis, parts per million by volume.

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.

Q_i , Q_o =flow rate of gas stream at the inlet and outlet of the control device, respectively, dry standard cubic meter per minute.

(1) Where the mass rate of TOC is being calculated, all organic compounds (minus methane and ethane) measured by EPA Method 18 shall be summed using equation 16 in paragraph (h)(2)(iv)(B) of this section.

(2) Where the mass rate of total organic HAP is being calculated, only the organic HAP species shall be summed using equation 17 in paragraph (h)(2)(iv)(B) of this section. The list of organic HAP is provided in § 63.104 of subpart F of this part.

(C) Calculate the destruction or removal efficiency for TOC (minus methane and ethane) or total organic HAP using equation 18:

$$R = \frac{E_i - E_o}{E_i} \times 100 \quad \text{Eq. 18}$$

where

R =destruction or removal efficiency of control device, percent.

E_i =mass rate of TOC (minus methane and ethane) or total organic HAP at the inlet to the control device as calculated under paragraph (h)(2)(iv)(B) of this section, kg TOC per hour or kg organic HAP per hour.

E_o =mass rate of TOC (minus methane and ethane) or total organic HAP at the outlet of the control device, as calculated under paragraph (h)(2)(iv)(B) of this section, kg TOC per hour or kg organic HAP per hour.

(3) Determine the capture efficiency F_k of each capture system to which organic HAP and VOC emissions from coating operations are vented. The capture efficiency value shall be determined using Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure as found in appendix B to § 52.741 of part 52 of this chapter for total enclosures, and the capture efficiency protocol specified in § 52.741(a)(4)(iii) of part 52 of this chapter for all other enclosures.

(i)(1) *Alternative application method—primers and topcoats.* Each owner or operator seeking to use an alternative application method (as allowed in § 63.745(f)(1)(ix)) in complying with the standards for

primers and topcoats shall use the procedures specified in paragraphs (i)(2) and (i)(3) of this section to determine the organic HAP and VOC emission levels of the alternative application technique as compared to either HVLP or electrostatic spray application methods.

(2)(i) For the process or processes for which the alternative application method is to be used, the total organic HAP and VOC emissions shall be determined for an initial 30-day period, the period of time required to apply coating to five completely assembled aircraft, or a time period approved by the permitting agency. During this initial period, only HVLP or electrostatic spray application methods shall be used. The emissions shall be determined based on the volumes, organic HAP contents (less water), and VOC contents (less water and exempt solvents) of the coatings as applied.

(ii) Upon implementation of the alternative application method, use the alternative application method in production on actual production parts or assemblies for a period of time sufficient to coat an equivalent amount of parts and assemblies with coatings identical to those used in the initial 30-day period. The actual organic HAP and VOC emissions shall be calculated for this post-implementation period.

(iii) Calculate both the organic HAP and VOC emission reduction using equation 19:

$$P = \frac{E_b - E_a}{E_b} \times 100 \quad \text{Eq. 19}$$

where

P=organic HAP or VOC emission reduction, percent.

E_b =organic HAP or VOC emissions, in pounds, before the alternative application technique was implemented, as determined under paragraph (i)(2)(i) of this section.

E_a =organic HAP or VOC emissions, in pounds, after the alternative application technique was implemented, as determined under paragraph (i)(2)(ii) of this section.

(3) Each owner or operator seeking to demonstrate that an alternative application method achieves emission reductions equivalent to HVLP or electrostatic spray application methods shall comply with the following:

(i) Each coating shall be applied such that the dried film thickness is within the range specified by the applicable specification(s) for the aerospace vehicle or component being coated.

(ii) If no such dried film thickness specification(s) exists, the owner or

operator shall ensure that the dried film thickness applied during the initial 30-day period is equivalent to the dried film thickness applied during the alternative application method test period for similar aerospace vehicles or components.

(iii) Failure to comply with these dried film thickness requirements shall invalidate the test results obtained under paragraph (i)(2)(i) of this section.

(j) *Spot stripping and decal removal.* Each owner or operator seeking to comply with § 63.746(b)(3) shall determine the volume of organic HAP-containing chemical strippers used per aircraft using the procedure specified in paragraphs (j)(1) through (j)(3) of this section.

(1) For each chemical stripper used for spot stripping and decal removal, determine for each annual period the total volume as applied using the procedure specified in paragraph (d)(2) of this section.

(2) Determine the total number of aircraft for which depainting operations began during the annual period as determined from company records.

(3) Calculate the annual average volume of organic HAP used for spot stripping and decal removal per aircraft using equation 20:

$$C = \frac{\sum_{i=1}^n V_{si}}{A} \quad \text{Eq. 20}$$

where

C=annual average volume (gal per aircraft) of organic HAP-containing chemical stripper used for spot stripping and decal removal.

n=number of organic HAP-containing chemical strippers used in the annual period.

V_{si} =volume (gal) of organic HAP-containing chemical stripper i used during the annual period.

A=number of aircraft for which depainting operations began during the annual period.

(k) *Organic HAP content level determination—compliant chemical milling maskants.* For those uncontrolled chemical milling maskants complying with the chemical milling maskant organic HAP content limit specified in § 63.747(c)(1) without being averaged, the following procedures shall be used to determine the mass of organic HAP emitted per volume of coating (less water) as applied.

(1) For coatings that contain no exempt solvents, determine the total organic HAP content using manufacturer's supplied data or Method 24 of 40 CFR part 60, appendix A to

determine the VOC content. The VOC content shall be used as a surrogate for total HAP content for coatings that contain no exempt solvent. If there is a discrepancy between the manufacturer's formulation data and the results of the Method 24 analysis, compliance shall be based on the results from the Method 24 analysis.

When Method 24 is used to determine the VOC content of water-reducible coatings, the precision adjustment factors in Reference Method 24 shall be used. If the adjusted analytical VOC content is less than the formulation solvent content, then the analytical VOC content should be set equal to the formulation solvent content.

(i) *Organic HAP content level determination—averaged chemical milling maskants.* For those uncontrolled chemical milling maskants that are averaged together in order to comply with the chemical milling maskant organic HAP content level specified in § 63.747(c)(1), the procedure specified in paragraphs (i)(1) through (i)(4) of this section shall be used to determine the monthly volume-weighted average mass of organic HAP emitted per volume of chemical milling maskant (less water) as applied, unless the permitting agency specifies a shorter averaging period as part of an ambient ozone control program.

(1) Determine the total organic HAP weight fraction as applied of each chemical milling maskant used during each 30-day period using the procedure specified in paragraph (d)(1) of this section.

(2) Determine for each 30-day period:

(i) The individual volume of each chemical milling maskant applied in terms of total gallons (less water) (using the procedure specified in paragraph (d)(2) of this section), and

(ii) The total volume in gallons of all chemical milling maskants (less water) as applied by summing the individual volumes of each chemical milling maskant as applied (less water).

(3) Determine the density of each chemical milling maskant as applied used during each 30-day period using the procedure specified in paragraph (d)(3) of this section.

(4) Calculate the volume-weighted average mass of organic HAP emitted per unit volume (lb/gal) of chemical milling maskant (less water) as applied for all chemical milling maskants during each 30-day period using equation 21:

$$H_a = \frac{\sum_{i=1}^n W_{Hi} D_{mi} V_{mi}}{M_{tw}} \quad \text{Eq. 21}$$

where

H_a =volume-weighted mass of organic HAP emitted per unit volume of chemical milling maskants (lb/gal) (less water) as applied during each 30-day period for those chemical milling maskants being averaged.

n =number of chemical milling maskants being averaged.

W_{Hi} =weight fraction (expressed as a decimal) of organic HAP in chemical milling maskant i (less water) as applied during each 30-day period that is averaged.

D_{mi} =density (lb chemical milling maskant per gal coating) of chemical milling maskant i as applied during each 30-day period that is averaged.

V_{mi} =volume (gal) of chemical milling maskant i (less water) as applied during the 30-day period that is averaged.

M_{tw} =total volume (gal) of all chemical milling maskants (less water) as applied during each 30-day period that is averaged.

(m) *VOC content level determination—compliant chemical milling maskants.* For those uncontrolled chemical milling maskants complying with the chemical milling maskant VOC content limit specified in § 63.747(c)(2) without being averaged, the procedure specified in paragraphs (m)(1) and (m)(2) of this section shall be used to determine the mass of VOC emitted per volume of chemical milling maskant (less water and exempt solvents) as applied.

(1) Determine the mass of VOC emitted per unit volume of chemical milling maskant (lb/gal) (less water and exempt solvents) as applied, G_a , for each chemical milling maskant using the procedures specified in paragraphs (e)(1) and (e)(2) of this section.

(2)(i) If the VOC content is found to be different when EPA Method 24 is used during an enforcement inspection from that used by the owner or operator in calculating G_a , compliance shall be based, except as provided in paragraph (m)(2)(ii) of this section, upon the VOC content obtained using EPA Method 24.

(ii) If the VOC content of a chemical milling maskant obtained using EPA Method 24 would indicate noncompliance as determined under § 63.749(h)(3)(i), an owner or operator may elect to average the chemical milling maskant with other uncontrolled chemical milling maskants and (re)calculate G_a (using the procedure specified in paragraph (n) of this section), provided appropriate and sufficient records were maintained for all chemical milling maskants included

in the average recalculation. The (re)calculated value of G_a for the averaged chemical milling maskants shall then be used to determine compliance.

(n) *VOC content level determination—averaged chemical milling maskants.*

For those uncontrolled chemical milling maskants that are averaged together in order to comply with the chemical milling maskant VOC content limit specified in § 63.747(c)(2), the procedure specified in paragraphs (n)(1) through (n)(4) of this section shall be used to determine the monthly volume-weighted average mass of VOC emitted per volume of chemical milling maskant (less water and exempt solvents) as applied, unless the permitting agency specifies a shorter averaging period as part of an ambient ozone control program.

(1) Determine the VOC content of each chemical milling maskant (less water and exempt solvents) as applied used during each 30-day period using the procedure specified in paragraph (f)(1) of this section.

(2)(i) Determine the individual volume of each chemical milling maskant applied in terms of total gallons (less water and exempt solvents) using the procedure specified in paragraph (f)(2) of this section, and

(ii) Calculate the total volume in gallons of all chemical milling maskants (less water and exempt solvents) as applied by summing the individual volumes of each chemical milling maskant (less water and exempt solvents) as applied.

(3) Calculate the volume-weighted average mass of VOC emitted per unit volume (lb/gal) of chemical milling maskant (less water and exempt solvents) as applied during each 30-day period using equation 22:

$$G_a = \frac{\sum_{i=1}^n (\text{VOC})_{mi} V_{mi}}{M_{twes}} \quad \text{Eq. 22}$$

where

G_a =volume-weighted average mass of VOC per unit volume of chemical milling maskant (lb/gal) (less water and exempt solvents) as applied during each 30-day period for those chemical milling maskants that are averaged.

n =number of chemical milling maskants being averaged.

$(\text{VOC})_{mi}$ =VOC content (lb/gal) of chemical milling maskant i (less water and exempt solvents) as applied during the 30-day period that is averaged.

V_{mi} =volume (gal) of chemical milling maskant i (less water and exempt solvents) as applied during the 30-day period that is averaged.

M_{twes} =total volume (gal) of all chemical milling maskants (less water and exempt solvents) as applied during each 30-day period that is averaged.

(4)(i) If the VOC content is found to be different when EPA Method 24 is used during an enforcement inspection from that used by the owner or operator in calculating G_a , recalculation of G_a is required using the new value. If more than one chemical milling maskant is involved, the recalculation shall be made once using all of the new values.

(ii) If recalculation is required, an owner or operator may elect to include in the recalculation of G_a uncontrolled chemical milling maskants that were not previously included provided appropriate and sufficient records were maintained for these other chemical milling maskants to allow daily recalculations.

(iii) The recalculated value of G_a under either paragraph (n)(4)(i) or (n)(4)(ii) of this section shall be used to determine compliance.

§ 63.751 Monitoring requirements.

(a) *Enclosed spray gun cleaners.* Each owner or operator using an enclosed spray gun cleaner under § 63.744(c)(1) shall visually inspect the seals and all other potential sources of leaks associated with each enclosed gun spray cleaner system at least once per month. Each inspection shall occur while the system is in operation.

(b) *Incinerators and carbon adsorbers—initial compliance demonstrations.* Each owner or operator subject to the requirements in this subpart must demonstrate initial compliance with the requirements of § 63.745(d), § 63.746(c), and § 63.747(d) of this subpart. Each owner or operator using a carbon adsorber to comply with the requirements in this subpart shall comply with the requirements specified in paragraphs (b)(1) through (b)(7) of this section. Each owner or operator using an incinerator to comply with the requirements in this subpart shall comply with the requirements specified in paragraphs (b)(9) through (b)(12) of this section.

(1) Except as allowed by paragraph (b)(2) or (b)(5) of this section, for each control device used to control organic HAP or VOC emissions, the owner or operator shall fulfill the requirements of paragraph (b)(1) (i) or (ii) of this section.

(i) The owner or operator shall establish as a site-specific operating parameter the outlet total HAP or VOC concentration that demonstrates

compliance with § 63.745(d), § 63.746(c), or § 63.747(d) as appropriate; or

(ii) The owner or operator shall establish as the site-specific operating parameter the control device efficiency that demonstrates compliance with § 63.745(d), § 63.746(c), or § 63.747(d).

(iii) When a nonregenerative carbon adsorber is used to comply with § 63.745(d), § 63.746(c), or § 63.747(d), the site-specific operating parameter value may be established as part of the design evaluation used to demonstrate initial compliance. Otherwise, the site-specific operating parameter value shall be established during the initial performance test conducted according to the procedures of § 63.750(g).

(2) For each nonregenerative carbon adsorber, in lieu of meeting the requirements of § 63.751(b)(1), the owner or operator may establish as the site-specific operating parameter the carbon replacement time interval, as determined by the maximum design flow rate and organic concentration in the gas stream vented to the carbon adsorption system. The carbon replacement time interval shall be established either as part of the design evaluation to demonstrate initial compliance or during the initial performance test conducted according to the procedures in § 63.750(g) (1), (2), (3), or (4).

(3) Each owner or operator venting solvent HAP emissions from a source through a room, enclosure, or hood, to a control device to comply with § 63.745(d), § 63.746(c), or § 63.747(d) shall:

(i) Submit to the Administrator with the compliance status report required by § 63.9(h) of the General Provisions a plan that:

(A) Identifies the operating parameter to be monitored to ensure that the capture efficiency measured during the initial compliance test is maintained;

(B) Discusses why this parameter is appropriate for demonstrating ongoing compliance; and

(C) Identifies the specific monitoring procedures;

(ii) Set the operating parameter value, or range of values, that demonstrate compliance with § 63.745(d), § 63.746(c), or § 63.747(d), as appropriate; and

(iii) Conduct monitoring in accordance with the plan submitted to the Administrator unless comments received from the Administrator require an alternate monitoring scheme.

(4) Owners or operators subject to § 63.751(b) (1), (2), or (3) shall calculate the site-specific operating parameter value, or range of values, as the

arithmetic average of the maximum and/or minimum operating parameter values, as appropriate, that demonstrate compliance with § 63.745(d), § 63.746(c), or § 63.747(d) during the multiple test runs required by § 63.750(g)(2) and (g)(1).

(5) For each solvent recovery device used to comply with § 63.745(d), § 63.746(c), or § 63.747(d), in lieu of meeting the requirements of paragraph (b)(1) of this section, the results of the material balance calculation conducted in accordance with § 63.750(g)(1) may serve as the site-specific operating parameter that demonstrates compliance with § 63.745(d), § 63.746(c), or § 63.747(d).

(6) *Continuous compliance monitoring.* Following the date on which the initial compliance demonstration is completed, continuous compliance with § 63.745(d), § 63.746(c), or § 63.747(d) of this subpart shall be demonstrated as outlined in this paragraph.

(i) Each owner or operator of an affected source subject to § 63.745(d), § 63.746(c), or § 63.747(d) of this subpart shall monitor the applicable parameters specified in paragraph (b)(6)(ii), (b)(6)(iii), or (b)(6)(iv) of this section depending on the type of control technique used.

(ii) Compliance monitoring shall be subject to the following provisions:

(A) Except as allowed by paragraph (b)(7)(iii)(A)(3) of this section, all continuous emission monitors shall comply with performance specification (PS) 8 or 9 in 40 CFR part 60, appendix B, as appropriate depending on whether VOC or HAP concentration is being measured. The requirements in appendix F of 40 CFR part 60 shall also be followed. In conducting the quarterly audits required by appendix F, owners or operators shall challenge the monitors with compounds representative of the gaseous emission stream being controlled.

(B) If the effluent from multiple emission points are combined prior to being channeled to a common control device, the owner or operator is required only to monitor the common control device, not each emission point.

(iii) Owners or operators complying with § 63.745(d), § 63.746(c), or § 63.747(d) through the use of a control device and establishing a site-specific operating parameter in accordance with paragraph (b)(1) shall fulfill the requirements of paragraph (b)(7)(iii)(A) of this section and paragraph (b)(7)(iii)(B) or (C) of this section, as appropriate.

(A) The owner or operator shall install, calibrate, operate, and maintain a continuous emission monitor.

(1) The continuous emission monitor shall be used to measure continuously the total HAP or VOC concentration at both the inlet and the outlet whenever HAP from coating and paint stripping operations are vented to the control device, or when continuous compliance is demonstrated through a percent efficiency calculation; or

(2) For owners or operators using a nonregenerative carbon adsorber, in lieu of using continuous emission monitors as specified in paragraph (b)(7)(iii)(A)(1) of this section, the owner or operator may use a portable monitoring device to monitor total HAP or VOC concentration at the inlet and outlet, or the outlet of the carbon adsorber, as appropriate.

(a) The monitoring device shall be calibrated, operated, and maintained in accordance with the manufacturer's specifications.

(b) The monitoring device shall meet the requirements of part 60, appendix A, Method 21, sections 2, 3, 4.1, 4.2, and 4.4. The calibration gas shall either be representative of the compounds to be measured or shall be methane, and shall be at a concentration associated with 125% of the expected organic compound concentration level for the carbon adsorber outlet vent.

(c) The probe inlet of the monitoring device shall be placed at approximately the center of the carbon adsorber outlet vent. The probe shall be held there for at least 5 minutes during which flow into the carbon adsorber is expected to occur. The maximum reading during that period shall be used as the measurement.

(B) If complying with § 63.745(d), § 63.746(c), or § 63.747(d) through the use of a carbon adsorption system with a common exhaust stack for all of the carbon vessels, the owner or operator shall not operate the control device at an average control efficiency less than that required by § 63.745(d), § 63.746(c), or § 63.747(d) for three consecutive adsorption cycles.

(C) If complying with § 63.745(d), § 63.746(c), or § 63.747(d) through the use of a carbon adsorption system with individual exhaust stacks for each of the multiple carbon adsorber vessels, the owner or operator shall not operate any carbon adsorber vessel at an average control efficiency less than that required by § 63.745(d), § 63.746(c), or § 63.747(d) as calculated daily using a 7 to 30-day rolling average.

(D) If complying with § 63.745(d), § 63.746(c), or § 63.747(d) through the use of a nonregenerative carbon adsorber, in lieu of the requirements of paragraph (b)(7)(iii)(B) or (C) of this section, the owner or operator may

replace the carbon in the carbon adsorber system with fresh carbon at a regular predetermined time interval as determined in accordance with paragraph (b)(2) of this section.

(iv) Owners or operators complying with § 63.745(d), § 63.746(c), or § 63.747(d) by capturing emissions through a room, enclosure, or hood shall install, calibrate, operate, and maintain the instrumentation necessary to measure continuously the site-specific operating parameter established in accordance with paragraph (b)(3) of this section whenever VOC and HAP from coating and stripper operations are vented through the capture device. The capture device shall not be operated at an average value greater than or less than (as appropriate) the operating parameter value established in accordance with paragraph (b)(3) of this section for any 3-hour period.

(7) Owners or operators complying with paragraph (b)(4) or (b)(5) of this section shall calculate the site-specific operating parameter value as the arithmetic average of the minimum operating parameter values that demonstrate compliance with § 63.745(d) and § 63.747(d) during the three test runs required by § 63.750(h)(2)(iv).

(8) All temperature monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturer's specifications. Every 3 months, facilities shall replace the temperature sensors or have the temperature sensors recalibrated. As an alternative, a facility may use a continuous emission monitoring system (CEMS) to verify that there has been no change in the destruction efficiency and effluent composition of the incinerator.

(9) Where an incinerator other than a catalytic incinerator is used, a thermocouple equipped with a continuous recorder shall be installed and continuously operated in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.

(10) Where a catalytic incinerator is used, thermocouples, each equipped with a continuous recorder, shall be installed and continuously operated in the gas stream immediately before and after the catalyst bed.

(11) For each incinerator other than a catalytic incinerator, each owner or operator shall establish during each performance test during which compliance is demonstrated, including the initial performance test, the minimum combustion temperature as a site-specific operating parameter. This minimum combustion temperature shall

be the operating parameter value that demonstrates compliance with § 63.745(d) and § 63.747(d).

(12) For each catalytic incinerator, each owner or operator shall establish during each performance test during which compliance is demonstrated, including the initial performance test, the minimum gas temperature upstream of the catalyst bed and the minimum gas temperature difference across the catalyst bed as site-specific operating parameters. These minimum temperatures shall be the operating parameter values that demonstrate compliance with § 63.745(d) and § 63.747(d).

(c) *Dry particulate filter, HEPA filter, and waterwash systems—primer and topcoat application operations.*

(1) Each owner or operator using a dry particulate filter system or a HEPA filter system to meet the requirements of § 63.745(g)(2) shall continuously monitor the pressure drop across the system.

(2) Each owner or operator using a waterwash system to meet the requirements of § 63.745(g)(2) shall continuously monitor the water flow rate through the system.

(d) *Particulate filters and waterwash booths—depainting operations.* Each owner or operator using a dry particulate filter or waterwash system in accordance with the requirements of § 63.746(b)(4) shall continuously monitor the pressure drop across the particulate filters or the water flow rate through the waterwash system.

(e) *Use of an alternative monitoring method.*

(1) *General.* Until permission to use an alternative monitoring method has been granted by the Administrator under this paragraph, the owner or operator of an affected source shall remain subject to the requirements of this section.

(2) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring methods or procedures of this section including, but not limited to, the following:

(i) Alternative monitoring requirements when the affected source is infrequently operated; or
(ii) Alternative locations for installing continuous monitoring systems when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements; or

(iii) Alternatives to the American Society for Testing and Materials (ASTM) test methods or sampling procedures specified in this section.

(3) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative monitoring method, requirement, or procedure, the Administrator may require the use of a method, requirement, or procedure specified in this section. If the results of the specified and the alternative method, requirement, or procedure do not agree, the results obtained by the specified method, requirement, or procedure shall prevail.

(4)(i) *Request to use alternative monitoring method.* An owner or operator who wishes to use an alternative monitoring method shall submit an application to the Administrator as described in paragraph (e)(4)(ii) of this section. The application may be submitted at any time provided that the monitoring method is not used to demonstrate compliance with a relevant standard or other requirement. If the alternative monitoring method is to be used to demonstrate compliance with a relevant standard, the application shall be submitted not later than with the site-specific test plan required in § 63.7(c) (if requested) or with the site-specific performance evaluation plan (if requested), or at least 60 days before the performance evaluation is scheduled to begin.

(ii) The application shall contain a description of the proposed alternative monitoring system and information justifying the owner's or operator's request for an alternative monitoring method, such as the technical or economic infeasibility, or the impracticability, of the affected source using the required method.

(iii) The owner or operator may submit the information required in this paragraph well in advance of the submittal dates specified in paragraph (e)(4)(i) of this section to ensure a timely review by the Administrator in order to meet the compliance demonstration date specified in this subpart.

(5) *Approval of request to use alternative monitoring method.*

(i) The Administrator will notify the owner or operator of his/her intention to deny approval of the request to use an alternative monitoring method within 60 calendar days after receipt of the original request and within 60 calendar days after receipt of any supplementary information that is submitted. If notification of intent to deny approval is not received within 60 calendar days, the alternative monitoring method is to be considered approved. Before disapproving any request to use an alternative monitoring method, the Administrator will notify the applicant.

of the Administrator's intent to disapprove the request together with:

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present additional information to the Administrator before final action on the request. At the time the Administrator notifies the applicant of his or her intention to disapprove the request, the Administrator will specify how much time the owner or operator will have after being notified of the intended disapproval to submit the additional information.

(ii) If the Administrator approves the use of an alternative monitoring method for an affected source under paragraph (e)(5)(i) of this section, the owner or operator of such source shall continue to use the alternative monitoring method until approval is received from the Administrator to use another monitoring method as allowed by paragraph (e) of this section.

(f) Reduction of monitoring data.

(1) The data may be recorded in reduced or nonreduced form (e.g., parts per million (ppm) pollutant and % O₂ or nanograms per joule (ng/J) of pollutant).

(2) All emission data shall be converted into units specified in this subpart for reporting purposes. After conversion into units specified in this subpart, the data may be rounded to the same number of significant digits as used in this subpart to specify the emission limit (e.g., rounded to the nearest 1% overall reduction efficiency).

§ 63.752 Recordkeeping requirements.

(a) *General.* Each owner or operator of a source subject to this subpart shall fulfill all recordkeeping requirements specified in § 63.10 (a), (b), (d), and (f).

(b) *Cleaning operation.* Each owner or operator of a new or existing cleaning operation subject to this subpart shall record the information specified in paragraphs (b)(1) through (b)(5) of this section, as appropriate.

(1) The name, vapor pressure, and documentation showing the organic HAP constituents of each cleaning solvent used at the facility.

(2) For each cleaning solvent used in hand-wipe cleaning operations that complies with the composition requirements specified in § 63.744(b)(1) or for semi-aqueous cleaning solvents used for flush cleaning operations:

(i) The name of each cleaning solvent used;

(ii) All data and calculations that demonstrate that the cleaning solvent complies with one of the composition requirements; and

(iii) Annual records of the volume of each solvent used, as determined from facility purchase records or usage records.

(3) For each cleaning solvent used in hand-wipe cleaning operations that does not comply with the composition requirements in § 63.744(b)(1), but does comply with the vapor pressure requirement in § 63.744(b)(2):

(i) The name of each cleaning solvent used;

(ii) The composite vapor pressure of each cleaning solvent used;

(iii) All vapor pressure test results, if appropriate, data, and calculations used to determine the composite vapor pressure of each cleaning solvent; and

(iv) The amount (in gallons) of each cleaning solvent used each month at each operation.

(4) For each cleaning solvent used for the exempt hand-wipe cleaning operations specified in § 63.744(e) that does not conform to the vapor pressure or composition requirements of § 63.744(b):

(i) The identity and amount (in gallons) of each cleaning solvent used each month at each operation; and

(ii) A list of the processes set forth in § 63.744(e) to which the cleaning operation applies.

(5) A record of all leaks from enclosed spray gun cleaners identified pursuant to § 63.751(a) that includes for each leak found:

(i) Source identification;

(ii) Date leak was discovered; and

(iii) Date leak was repaired.

(c) Primer and topcoat application operations—organic HAP and VOC.

Each owner or operator required to comply with the organic HAP and VOC content limits specified in § 63.745(c) shall record the information specified in paragraphs (c)(1) through (c)(6) of this section, as appropriate.

(1) The name and VOC content as received and as applied of each primer and topcoat used at the facility.

(2) For uncontrolled primers (organic HAP content less than 350 g/l (2.9 lb/gal) less water as applied and VOC content less than 350 g/l (2.9 lb/gal) less water and exempt solvents as applied) and topcoats that meet the organic HAP and VOC content limits in § 63.745(c)(1) through (c)(4) without averaging:

(i) The mass of organic HAP emitted per unit volume of coating as applied (less water) (H_a) and the mass of VOC emitted per unit volume of coating as applied (less water and exempt solvents) (G_a) for each coating formulation within each coating category used each month (as calculated using the procedures specified in § 63.750(c) and (e));

(ii) All data, calculations, and test results (including EPA Method 24 results) used in determining the values of H_a and G_a; and

(iii) The volume (gal) of each coating formulation within each coating category used each month.

(3) For "low HAP content" uncontrolled primers with organic HAP content less than or equal to 250 g/l (2.1 lb/gal) less water as applied and VOC content less than or equal to 250 g/l (2.1 lb/gal) less water and exempt solvents as applied:

(i) Annual purchase records of the total volume of each primer purchased; and

(ii) All data, calculations, and test results (including EPA Method 24 results) used in determining the organic HAP and VOC content as applied. These records shall consist of the manufacturer's certification when the primer is applied as received, or the data and calculations used to determine H_a, if not applied as received.

(4) For primers and topcoats complying with the organic HAP or VOC content level by averaging:

(i) The monthly volume-weighted average masses of organic HAP emitted per unit volume of coating as applied (less water) (H_a) and of VOC emitted per unit volume of coating as applied (less water and exempt solvents) (G_a) for all coatings (as determined by the procedures specified in § 63.750(d) and (f)); and

(ii) All data, calculations, and test results (including EPA Method 24 results) used to determine the values of H_a and G_a.

(5) For primers and topcoats that are controlled by a control device other than a carbon adsorber:

(i) The overall control efficiency of the control system (as determined using the procedures specified in § 63.750(h)) and all test results, data, and calculations used in determining the overall control efficiency;

(ii) If an incinerator other than a catalytic incinerator is used, continuous records of the firebox temperature recorded under § 63.751(b)(9) and all calculated 3-hour averages of the firebox temperature; and

(iii) If a catalytic incinerator is used, continuous records of the temperature recorded under § 63.751(b)(10) and all calculated 3-hour averages of the recorded temperatures.

(6) For primer and topcoats that are controlled by a carbon adsorber:

(i) The overall control efficiency of the control system (as determined using the procedures specified in § 63.750(g)) and all test results, data, and calculations used in determining the

overall control efficiency. The length of the rolling material balance period and all data and calculations used for determining this rolling period. The record of the certification of the accuracy of the device that measures the amount of HAP or VOC recovered; or

(ii) For nonregenerative carbon adsorbers, the overall control efficiency of the control system (as determined using the procedures specified in § 63.750(g)) and all test results, data, and calculations used in determining the overall control efficiency. The record of the carbon replacement time established as the site-specific operating parameter to demonstrate compliance.

(d) Primer and topcoat application operations—Inorganic HAP emissions.

(1) Each owner or operator complying with § 63.745(g) for the control of inorganic HAP emissions from primer and topcoat application operations through the use of a dry particulate filter system or a HEPA filter system shall record the pressure drop across the operating system once each shift during which coating operations occur.

(2) Each owner or operator complying with § 63.745(g) through the use of a waterwash system shall record the water flow rate through the operating system once each shift during which coating operations occur.

(3) This log shall include the acceptable limit(s) of pressure drop or water flow rate, as applicable, as specified by the filter or booth manufacturer or in locally prepared operating procedures.

(4) If 3-stage or HEPA filters are used at a new facility to control emissions from chromated primers or topcoats, records shall be kept of documentation supplied by the filter manufacturer that the filters in use meet the 3-stage or HEPA filter requirements.

(e) *Depainting operations.* Each owner or operator subject to the depainting standards specified in § 63.746 shall record the information specified in paragraphs (e)(1) through (e)(7) of this section, as appropriate.

(1) *General.* For all chemical strippers used in the depainting operation:

(i) The name of each chemical stripper; and

(ii) Monthly volumes of each organic-HAP containing chemical stripper used.

(2) For HAP-containing chemical strippers that are controlled by a carbon adsorber:

(i) The overall control efficiency of the control system (as determined using the procedures specified in § 63.750(g)) and all test results, data, and calculations used in determining the overall control efficiency. The length of the rolling material balance period and

all data and calculations used for determining this rolling period. The record of the certification of the accuracy of the device that measures the amount of HAP or VOC recovered; or

(ii) For nonregenerative carbon adsorbers, the overall control efficiency of the control system (as determined using the procedures specified in § 63.750(g)) and all test results, data, and calculations used in determining the overall control efficiency. The record of the carbon replacement time established as the site-specific operating parameter to demonstrate compliance.

(3) For HAP-containing chemical strippers that are controlled by a control device other than a carbon adsorber:

(i) The overall control efficiency of the control system (as determined using the procedures specified in § 63.750(h)) and all test results, data, and calculations used in determining the overall control efficiency;

(4) For each type of aircraft depainted at the facility, a listing of the parts, subassemblies, and assemblies normally removed from the aircraft before depainting. Prototype, test model or aircraft that exist in low numbers (i.e., less than 25 aircraft of any one type) are exempt from this requirement.

(5) *Non-chemical based equipment.* If dry media blasting equipment is used to comply with the organic HAP emission limit specified in § 63.746(b)(1):

(i) The names and types of non-chemical based equipment; and

(ii) For periods of malfunction,

(A) The non-chemical method or technique that malfunctioned;

(B) The date that the malfunction occurred;

(C) A description of the malfunction;

(D) The methods used to repaint aerospace vehicles during the malfunction period;

(E) The dates that these methods were begun and discontinued; and

(F) The date that the malfunction was corrected.

(6) *Spot stripping and decal removal.* For spot stripping and decal removal, the volume of organic HAP-containing chemical stripper used, the annual average volume of organic HAP-containing stripper used per aircraft, the annual number of aircraft stripped, and all data and calculations used.

(7) *Inorganic HAP emissions.* The actual pressure drop across the particulate filters or the visual continuity of the water curtain and water flow rate for waterwash systems, once each shift in which the depainting process is in operation. This log shall include the acceptable limit(s) of the pressure drop as specified by the filter manufacturer and the visual continuity

of the water curtain and water flow rate for waterwash systems as specified by the booth manufacturer or in locally prepared operating procedures.

(f) *Chemical milling maskant application operations.* Each owner or operator seeking to comply with the organic HAP and VOC content limits for the chemical milling maskant application operation, as specified in § 63.747(c), shall record the information specified in paragraphs (f)(1) through (f)(4) of this section, as appropriate.

(1) For uncontrolled chemical milling maskants that meet the organic HAP or VOC content limit without averaging:

(i) The mass of organic HAP emitted per unit volume of chemical milling maskant as applied (less water) (H_a) and the mass of VOC emitted per unit volume of chemical milling maskant as applied (less water and exempt solvents) (G_a) for each chemical milling maskant formulation used each month (as determined by the procedures specified in § 63.750 (k) and (m));

(ii) All data, calculations, and test results (including EPA Method 24 results) used in determining the values of H_a and G_a ; and

(iii) The volume (gal) of each chemical milling maskant formulation used each month.

(2) For chemical milling maskants complying with the organic HAP or VOC content level by averaging:

(i) The monthly volume-weighted average masses of organic HAP emitted per unit volume of chemical milling maskant as applied (less water) (H_a) and of VOC emitted per unit volume of chemical milling maskant as applied (less water and exempt solvents) (G_a) for all chemical milling maskants (as determined by the procedures specified in § 63.750 (l) and (n)); and

(ii) All data, calculations, and test results (including EPA Method 24 results) used to determine the values of H_a and G_a .

(3) For chemical milling maskants that are controlled by a carbon adsorber:

(i) The overall control efficiency of the control system (as determined using the procedures specified in § 63.750(g)) and all test results, data, and calculations used in determining the overall control efficiency. The length of the rolling material balance period and all data and calculations used for determining this rolling period. The record of the certification of the accuracy of the device that measures the amount of HAP or VOC recovered; or

(ii) For nonregenerative carbon adsorbers, the overall control efficiency of the control system (as determined using the procedures specified in § 63.750(g)) and all test results, data,

and calculations used in determining the overall control efficiency. The record of the carbon replacement time established as the site-specific operating parameter to demonstrate compliance.

(4) For chemical milling maskants that are controlled by a control device other than a carbon adsorber:

(i) The overall control efficiency of the control system (as determined using the procedures specified in § 63.750(h)) and all test results, data, and calculations used in determining the overall control efficiency;

(ii) If an incinerator other than a catalytic incinerator is used, continuous records of the firebox temperature recorded under § 63.751(b)(9) and all calculated 3-hour averages of the firebox temperature; and

(iii) If a catalytic incinerator is used, continuous records of the temperature recorded under § 63.751(b)(10) and all calculated 3-hour averages of the recorded temperatures.

§ 63.753 Reporting requirements.

(a)(1) Except as provided in paragraphs (a)(2) and (a)(3) of this section, each owner or operator subject to this subpart shall fulfill the requirements contained in § 63.9 (a) through (e) and (h) through (j), Notification requirements, and § 63.10 (a), (b), (d), and (f), Recordkeeping and reporting requirements, of the General Provisions, 40 CFR part 63, subpart A, except that the initial notification requirements for new or reconstructed affected sources in § 63.9(b) (3) through (5) shall not apply. In addition to the requirements of § 63.9(h), the notification of compliance status shall include:

(i) Information detailing whether the source has operated within the specified ranges of its designated operating parameters.

(ii) For each coating line, where averaging will be used along with the types and quantities of coatings the facility expects to use in the first year of operation. Averaging schemes shall be approved by the Administrator or delegated State authority and shall be included as part of the facility's title V or part 70 permit.

(2) For the purposes of this subpart, a title V or part 70 permit application may be used in lieu of the initial notification required under § 63.9(b)(2), provided the same information is contained in the permit application as required by § 63.9(b)(2), and the State to which the permit application has been submitted has an approved operating permit program under part 70 of this chapter and has received delegation of authority from the EPA. Permit

applications shall be submitted by the same due dates as those specified for the initial notifications.

(3) For the purposes of this subpart, the Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment to a particular time period or postmark deadline submitted under § 63.9(i) within 30 calendar days of receiving sufficient information to evaluate the request, rather than 15 calendar days as provided for in § 63.9(i)(3).

(b) *Cleaning operation.* Each owner or operator of a cleaning operation subject to this subpart shall submit the following information:

(1) Semiannual reports occurring every 6 months from the date of the notification of compliance status that identify:

(i) Any instance where a noncompliant cleaning solvent is used for a non-exempt hand-wipe cleaning operation;

(ii) A list of any new cleaning solvents used for hand-wipe cleaning in the previous 6 months and, as appropriate, their composite vapor pressure or notification that they comply with the composition requirements specified in § 63.744(b)(1);

(iii) Any instance where a noncompliant spray gun cleaning method is used;

(iv) Any instance where a leaking enclosed spray gun cleaner remains unrepaired and in use for more than 15 days; and

(v) If the operations have been in compliance for the semiannual period, a statement that the cleaning operations have been in compliance with the applicable standards. Sources shall also submit a statement of compliance signed by a responsible company official certifying that the facility is in compliance with all applicable requirements.

(c) *Primer and topcoat application operations.* Each owner or operator of a primer or topcoat application operation subject to this subpart shall submit the following information:

(1) Semiannual reports occurring every 6 months from the date of the notification of compliance status that identify:

(i) For primers and topcoats where compliance is not being achieved through the use of averaging or a control device, each value of H_i and G_i , as recorded under § 63.752(c)(2)(i), that exceeds the applicable organic HAP or VOC content limit specified in § 63.745(c);

(ii) For primers and topcoats where compliance is being achieved through

the use of averaging, each value of H_i and G_i , as recorded under § 63.752(c)(4)(i), that exceeds the applicable organic HAP or VOC content limit specified in § 63.745(c);

(iii) If incinerators are used to comply with the standards, all periods when the 3-hour average combustion temperature(s) is (are) less than the average combustion temperature(s) established under § 63.751(b) (11) or (12) during the most recent performance test during which compliance was demonstrated;

(iv) If a carbon adsorber is used;

(A) each rolling period when the overall control efficiency of the control system is calculated to be less than 81%, the initial material balance calculation, and any exceedances as demonstrated through the calculation; or,

(B) for nonregenerative carbon adsorbers, submit the design evaluation, the continuous monitoring system performance report, and any excess emissions as demonstrated through deviations of monitored values.

(v) For control devices other than an incinerator or carbon adsorber, each exceedance of the operating parameter(s) established for the control device under the initial performance test during which compliance was demonstrated;

(vi) All times when a primer or topcoat application operation was not immediately shut down when the pressure drop across a dry particulate filter or HEPA filter system, or the water flow rate through a waterwash system, as appropriate, was outside the limit(s) specified by the filter or booth manufacturer or in locally prepared operating procedures;

(vii) If the operations have been in compliance for the semiannual period, a statement that the operations have been in compliance with the applicable standards; and,

(2) Annual reports beginning 12 months after the date of the notification of compliance status listing the number of times the pressure drop or water flow rate for each dry filter or waterwash system, as applicable, was outside the limit(s) specified by the filter or booth manufacturer or in locally prepared operating procedures.

(d) *Depainting operation.* Each owner or operator of a depainting operation subject to this subpart shall submit the following information:

(1) Semiannual reports occurring every 6 months from the date of the notification of compliance status that identify:

(i) Any 24-hour period where organic HAP were emitted from the depainting

of aerospace vehicles, other than from the exempt operations listed in § 63.746 (a), (b)(3), and (b)(5).

(ii) Any new chemical strippers used at the facility during the reporting period;

(iii) The organic HAP content of these new chemical strippers;

(iv) For each chemical stripper that undergoes reformulation, its organic HAP content;

(v) Any new non-chemical depainting technique in use at the facility since the notification of compliance status or any subsequent semiannual report was filed;

(vi) For periods of malfunctions:

(A) The non-chemical method or technique that malfunctioned;

(B) The date that the malfunction occurred;

(C) A description of the malfunction;

(D) The methods used to repaint aerospace vehicles during the malfunction period;

(E) The dates that these methods were begun and discontinued; and

(F) The date that the malfunction was corrected;

(vii) All periods where a non-chemical depainting operation subject to § 63.746 (b)(2) and (b)(4) for the control of inorganic HAP emissions was not immediately shut down when the pressure drop or water flow rate was outside the limit(s) specified by the filter or booth manufacturer or in locally prepared operational procedures;

(viii) A list of new and discontinued aircraft models repainted at the facility over the last 6 months and a list of the parts normally removed for repainting for each new aircraft model being repainted; and

(ix) If the repainting operation has been in compliance for the semiannual period, a statement signed by a responsible company official that the operation was in compliance with the applicable standards.

(2) Annual reports occurring every 12 months from the date of the notification of compliance status that identify:

(i) The average volume per aircraft of organic HAP-containing chemical strippers used for spot stripping and decal removal operations if it exceeds the limits specified in § 63.746(b)(3); and

(ii) The number of times the pressure drop limit(s) for each filter system or the

number of times the water flow rate limit(s) for each waterwash system were outside the limit(s) specified by the filter or booth manufacturer or in locally prepared operating procedures.

(3) Where a control device is used to control organic HAP emissions, semiannual reports that identify:

(i) If a carbon adsorber is used,

(A) each rolling period when the overall control efficiency of the control system is calculated to be less than 81% for existing systems or less than 95% for new systems, the initial material balance calculation, and any exceedances as demonstrated through the calculation; or,

(B) for nonregenerative carbon adsorbers, submit the design evaluation, the continuous monitoring system performance report, and any excess emissions as demonstrated through deviations of monitored values.

(ii) For control devices other than a carbon adsorber, each exceedance of the operating parameter(s) established for the control device under the initial performance test during which compliance was demonstrated;

(iii) Descriptions of any control devices currently in use that were not listed in the notification of compliance status or any subsequent report.

(e) *Chemical milling maskant application operation.* Each owner or operator of a chemical milling maskant application operation subject to this subpart shall submit semiannual reports occurring every 6 months from the date of the notification of compliance status that identify:

(1) For chemical milling maskants where compliance is not being achieved through the use of averaging or a control device, each value of H_i and G_i , as recorded under § 63.752(f)(1)(i), that exceeds the applicable organic HAP or VOC content limit specified in § 63.747(c);

(2) For chemical milling maskants where compliance is being achieved through the use of averaging, each value of H_i and G_i , as recorded under § 63.752(f)(2)(i), that exceeds the applicable organic HAP or VOC content limit specified in § 63.747(c);

(3) Where a control device is used, (i) If incinerators are used to comply with the standards, all periods when the 3-hour average combustion

temperature(s) is (are) less than the average combustion temperature(s) established under § 63.751(b) (11) or (12) during the most recent performance test during which compliance was demonstrated;

(ii) If a carbon adsorber is used,

(A) each rolling period when the overall control efficiency of the control system is calculated to be less than 81%, the initial material balance calculation, and any exceedances as demonstrated through the calculation; or,

(B) for nonregenerative carbon adsorbers, submit the design evaluation, the continuous monitoring system performance report, and any excess emissions as demonstrated through deviations of monitored values.

(iii) For control devices other than an incinerator or carbon adsorber, each exceedance of the operating parameter(s) established for the control device under the initial performance test during which compliance was demonstrated;

(4) All chemical milling maskants currently in use that were not listed in the notification of compliance status or any other subsequent semiannual report;

(5) Descriptions of any control devices currently in use that were not listed in the notification of compliance status or any subsequent report; and

(6) If the operations have been in compliance for the semiannual period, a statement that the chemical milling maskant application operation has been in compliance with the applicable standards.

§§ 63.754–63.759 [Reserved]

3. Section 63.14 is amended by adding paragraph (b)(7) to read as follows:

§ 63.14 Incorporations by reference.

* * * * *

(b) * * *

(7) ASTM E 260–91, Standard Practice for Packed Column Gas Chromatography, IBR approved for § 63.750(b)(2) of subpart GG of this part.

* * * * *

[FR Doc. 95–21505 Filed 8–31–95; 8:45 am]

BILLING CODE 6550–60–P

Dated: May 24, 1995.

Stephen F. Sundlof,
Director, Center for Veterinary Medicine.
[FR Doc. 95-13635 Filed 6-2-95; 8:45 am]
BILLING CODE 4160-01-F

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[TX-10-1-7020; FRL-5214-8]

Approval and Promulgation of Air Quality Implementation Plans; Texas; Revision to the State Implementation Plan (SIP) Addressing Visible Emissions

AGENCY: Environmental Protection Agency (EPA).

ACTION: Withdrawal of direct final rule.

SUMMARY: The EPA published without prior proposal a Federal Register (FR) action approving a revision to the Texas SIP addressing visible emissions. The EPA's direct final approval was published on April 3, 1995 (60 FR 16806).

The EPA subsequently received adverse comments on the action. Accordingly, the EPA is withdrawing its direct final approval. All public comments received will be addressed in a subsequent final rule.

EFFECTIVE DATE: This withdrawal will be effective on June 2, 1995.

ADDRESSES: Copies of the documents relevant to this action are available for public inspection during normal business hours at the addresses listed below. The interested persons wanting to examine these documents should make an appointment at least twenty-four hours before the visiting day.

U.S. Environmental Protection Agency,
Region 6, Air Programs Branch (6T-A), 1445 Ross Avenue, suite 700,
Dallas, Texas 75202-2733.

Texas Natural Resource Conservation
Commission, P.O. Box 13087, Austin,
Texas 78711-3087.

FOR FURTHER INFORMATION CONTACT: Mr. Mark Sather, Planning Section (6T-AP), Air Programs Branch (6T-A), USEPA Region 6, 1445 Ross Avenue, Dallas, Texas 75202-2733, telephone (214) 665-7258.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur dioxide, Volatile organic compounds.

Authority: 42 U.S.C. 7401-7671q.

Therefore, the final rule appearing at 60 FR 16806, April 3, 1995, which was to become effective June 2, 1995, is withdrawn.

Dated: May 22, 1995.

A. Stanley Meiburg,
Acting Regional Administrator.
[FR Doc. 95-13746 Filed 6-2-95; 8:45 am]
BILLING CODE 6560-60-P

40 CFR Part 63

[AD-FRL-5209-8]

RIN 2060-AC31

National Emission Standards for Hazardous Air Pollutants: Halogenated Solvent Cleaning; Correction

AGENCY: Environmental Protection Agency (EPA).

ACTION: Corrections to final regulation.

SUMMARY: This action corrects errors and clarifies regulatory text in the final rule published on December 2, 1994 at 59 FR 61801.

EFFECTIVE DATE: These corrections become effective June 5, 1995.

FOR FURTHER INFORMATION CONTACT: Paul Almodovar, Coatings and Consumer Products Group, Emission Standards Division (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone number (919) 541-0283.

SUPPLEMENTARY INFORMATION: On December 2, 1994 (59 FR 61801), the Environmental Protection Agency (EPA) promulgated in the Federal Register national emission standards for hazardous air pollutants for halogenated solvent cleaning. These standards were promulgated as subpart T in 40 CFR part 63. This document contains corrections to editorial and cross-referencing errors in the final standards. In addition, there are corrections to clarify the applicability of the final rule, and to clarify several definitions.

Paragraph (a) of § 63.460 is revised to reflect the intent of the final rule by clarifying that wipe cleaning activities, such as cleaning using a rag containing halogenated solvent or a spray cleaner containing halogenated solvent are not covered under the scope of this regulation.

Paragraph (d) of § 63.460 and the definition of an existing source under § 63.461 are being revised to clarify that any machine, the construction or reconstruction of which was commenced on or before November 29, 1993, that did not meet the definition of

a solvent cleaning machine on December 2, 1994, because it did not, on that date, use halogenated hazardous air pollutant solvent liquid or vapor covered under this subpart to remove soils, becomes an existing source when it commences to use such liquid or vapor. The Agency intended machines that use halogenated hazardous air pollutants solvent liquid or vapor covered under this subpart to be subject to the regulation regardless of when they commenced such use. This correction clarifies an oversight in the drafting of the final rule. In addition, an existing solvent cleaning machine moved within a contiguous facility or to another facility under the same ownership continues to be regulated as an existing machine.

The definition of a batch cleaning machine under § 63.461 is being revised to clarify that cross-rod degreasers are considered batch cleaning machines. A definition of a cross-rod solvent cleaning machine is being added to the final rule.

The definition of a solvent cleaning machine under § 63.461 is being revised to clarify that small buckets, pails, and beakers with capacities of 7.6 liters (2 gallons) or less are not considered solvent cleaning machines for the purpose of this subpart. The Agency did not intend to regulate these small pieces of equipment not specifically designed to carry out cleaning or drying operations using one of the covered halogenated solvents. The size limit is included to ensure that larger vessels not specifically designed to carry out cleaning or drying operations remain subject to this final rule.

Paragraph (e)(2)(i) of § 63.463 is being revised to correct the proper units of measurement for the chilled air blanket temperature that the freeboard refrigeration device shall at least maintain. The chilled air blanket temperature shall be measured in °F, instead of °F or °C.

Paragraph (a)(4) of § 63.468 is being revised to correct an editorial error in order to clarify the intent of the provisions.

Paragraph (j) of § 63.468 is being revised to correct language on the part 70 permitting requirements for area source batch vapor and in-line solvent cleaning machines to clarify the intent of the provisions.

The headings for appendix B and appendix C are being revised for editorial errors in order to clarify the intent of the provisions.

List of Subjects in 40 CFR Part 63

Environmental protection, Air pollution control, Hazardous

substances, Halogenated solvent cleaning machines, Reporting and recordkeeping requirements.

Dated: May 10, 1995.

Mary D. Nichols,
Assistant Administrator for Air and
Radiation.

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

PART 63—[CORRECTED]

1. On page 61805, in the third column, 4 lines from the bottom, § 63.460(a) is corrected to add the following: "Wipe cleaning activities, such as using a rag containing halogenated solvent or a spray cleaner containing halogenated solvent are not covered under the provisions of this subpart."

2. On page 61806, first column, starting on line 18 from the top, § 63.460(d) is corrected by adding the following sentence to the end of the paragraph "Except that, any machine that commences construction or reconstruction on or before November 29, 1993, that does not use halogenated hazardous air pollutant (HAP) solvent on December 2, 1994 shall, if the machine begins use of halogenated HAP solvent after December 2, 1994, achieve compliance with the provisions of this subpart no later than December 2, 1997 or 60 days after commencing use of halogenated HAP solvent covered under this subpart whichever is later."

3. On page 61806, first column, starting 7 lines from the bottom, the definition of "batch cleaning machine" under § 63.461 is corrected by revising the last sentence to read as follows: "A solvent cleaning machine, such as a ferris wheel or a cross-rod degreaser, that clean multiple batch loads simultaneously and are manually loaded are batch cleaning machines."

4. On page 61806, second column, starting on the last line of the column, the definition of "existing" in § 63.461 is corrected to add the following sentence to the end of the definition: "A machine, the construction or reconstruction of which was commenced on or before November 29, 1993, but that did not meet the definition of a solvent cleaning machine on December 2, 1994 because it did not use halogenated HAP solvent liquid or vapor covered under this subpart to remove soils, becomes an existing source when it commences to use such liquid or vapor. A solvent cleaning machine moved within a contiguous facility or to another facility under the

same ownership, constitutes an existing machine."

5. On page 61806, second column, immediately following the definition of "cover" in § 63.461, the following definition of "cross-rod solvent cleaning machine" is added: "Cross-rod solvent cleaning machine means a batch solvent cleaning machine in which parts baskets are suspended from 'cross-rods' as they are moved through the machine. In a cross-rod cleaning machine, parts are loaded semi-continuously, and enter and exit the machine from a single portal."

6. On page 61807, second column, starting on line 40 from the top, the definition of "solvent cleaning machine" under § 63.461 is corrected to add the following sentence to the end of the definition: "Buckets, pails, and beakers with capacities of 7.6 liters (2 gallons) or less are not considered solvent cleaning machines."

7. On page 61808, in the first column, starting on line 26 from the top, § 63.462(d) is corrected to read as follows: "Each owner or operator of a batch cold cleaning machine shall submit an initial notification report as described in § 63.468 (a) and (b) and a compliance report as described in § 63.468(c)."

8. On page 61810, first column, starting on the last two lines, § 63.463(e)(2)(i) is corrected to read as follows: "If a freeboard refrigeration device is used to comply with these standards, the owner or operator shall ensure that the chilled air blanket temperature (in °F), measured at the center of the air blanket, is no greater than 30 percent of the solvent's boiling point."

9. On page 61814, third column, starting on line 24 from the top, § 63.468(a)(4) is corrected to read as follows: "The date of installation for each solvent cleaning machine or a letter certifying that the solvent cleaning machine was installed prior to, or after, November 29, 1993."

10. On page 61816, second column, starting on line 3 from the top, § 63.468(j) is corrected to read as follows: "The Administrator has determined, pursuant to the criteria under section 502(a) of the Act, that an owner or operator of any batch cold solvent cleaning machine that is not itself a major source and that is not located at a major source, as defined under 40 CFR 70.2, is exempt from part 70 permitting requirements for that source."

An owner or operator of any other solvent cleaning machine subject to the provisions of this subpart is subject to part 70 permitting requirements, such

sources, if not major or located at major sources, may be deferred by the State from part 70 permitting requirements for 5 years after the EPA first approves a part 70 program (i.e., until December 9, 1999). All sources receiving deferrals shall submit permit applications within 12 months of such date (by December 9, 2000)."

11. On page 61818, in the first column, on the first line, amendment "4." is corrected to read as follows: "4. Appendix A to subpart T is added to read as follows:" Also, on the next line, the words "Appendix B" are corrected to read "Appendix A to Subpart T".

12. On page 61818, in the third column, on the last two lines, amendment "5." is corrected to read as follows: "5. Appendix B to Subpart T is added to read as follows:" Also, on the next line, the words "Appendix C" are corrected to read "Appendix B to Subpart T".

[FR Doc. 95-12769 Filed 6-2-95; 8:45 am]
BILLING CODE 6560-60-M

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 43

[CC Docket No. 92-296; FCC 95-181]

Simplification of the Depreciation Process

AGENCY: Federal Communications
Commission.

ACTION: Final rule.

SUMMARY: The Federal Communications Commission is adopting ranges for the underlying factors that are used to compute depreciation rates for the local exchange carriers (LECs) regulated under the price cap incentive regulatory plan. Under new procedures, LECs may make streamlined filings for changes in depreciation rates, if their underlying depreciation factors fall within the prescribed ranges. The Commission implemented the streamlined procedures in two phases. The Second Report and Order (released June 28, 1994) adopted underlying factor ranges for 22 of the 34 depreciation rate categories. This Third Report and Order adopts ranges and alternate simplified procedures for the remaining 12 accounts and completes the implementation process. The rule change will lessen the depreciation prescription burden on price caps LECs in light of regulatory and market changes without sacrificing protection for consumers.

EFFECTIVE DATE: July 5, 1995.

Authority: 33 U.S.C. 1231; 50 U.S.C. 191; 33 CFR 1.05-1(g), 6.04-1, 6.04-6 and 160.5; 49 CFR 1.46.

2. A new Section 165T.13-026 is added to read as follows:

§ 165T.13-026 Security and Safety Zone; Sinclair Inlet, WA

(a) *Location.* The following area is a combined security and safety zone:

All waters of Sinclair Inlet, Puget Sound, Bremerton, Washington, bounded by a line commencing at latitude 47°33'04" N, longitude 122°39'41" W; thence to latitude 47°33'04" N, longitude 122°39'07" W; thence to latitude 47°33'07" N, longitude 122°38'59" W; thence to latitude 47°33'07" N, longitude 122°38'29" W; thence to latitude 47°33'23" N, longitude 122°37'45" W; thence to latitude 47°33'39" N, longitude 122°37'27" W; thence to latitude 47°33'42" N, longitude 122°37'28" W; and thence along the shoreline to the point of origin.

This combined security and safety zone roughly conforms to the configuration of the shoreline of the Puget Sound Naval Shipyard, measuring approximately 3500 yards along the shoreline and extending approximately 150 yards into Sinclair Inlet.

[Datum: NAD 83]

(b) *Regulations.* (1) In accordance with the general regulations in Sections 165.23 and 165.33 of this part, no person or vessel may enter or remain in this zone unless specifically listed in subparagraph (b)(2) of this section or authorized by the Captain of the Port, Puget Sound, or his designated representatives.

(2) The general regulations in Sections 165.23 and 165.33 of this part do not apply to the following persons or vessels:

- (i) Public vessels of the United States.
- (ii) Vessels performing work at Puget Sound Naval Shipyard under contract with the United States Navy.
- (iii) Any other vessel or person mutually agreed upon in advance by the Captain of the Port, Puget Sound, and Commanding Officer, Puget Sound Naval Shipyard. Vessels or persons entering the security and safety zone under this exemption must have previously obtained a copy of a certificate of exemption permitting their entry in the zone from the Security Office, Puget Sound Naval Shipyard, Bremerton, Washington. This written exemption shall state the date(s) on which it is effective and may contain any further restrictions on movement and activities within the zone as have been previously agreed upon by the Captain of the Port, Puget Sound, and

Commanding Officer, Puget Sound Naval Shipyard. The certificate of exemption shall be maintained onboard the exempted vessel or on the person of the exempted individual at all times when present in the zone.

(c) *Enforcement.* This combined security and safety zone will be enforced by the Captain of the Port, Puget Sound, and by his designated representatives. Designated representatives of the Captain of the Port may include Coast Guard commissioned officers and petty officers. The U.S. Navy may assist the Coast Guard in the patrol, monitoring, and enforcement of the security and safety zone.

(d) *Effective dates.* This section becomes effective on June 12, 1995 at 5 p.m. (PDT) and terminates on September 9, 1995 at 4:30 p.m. unless sooner terminated by the Captain of The Port.

Dated: June 12, 1995.

J. A. Pierson,

Capt., U.S. Coast Guard Commander, Thirteenth Coast Guard District, Acting.

[FR Doc. 95-15757 Filed 6-26-95; 8:45 am]

BILLING CODE 4910-14-M

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[AD-FRL-5226-11]

National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule; correction.

SUMMARY: This action corrects errors and clarifies regulatory text in the final rule published on January 25, 1995, at 60 FR 4948 concerning national emission standards for chromium emissions from hard and decorative chromium electroplating and chromium anodizing tanks.

EFFECTIVE DATE: These corrections become effective June 27, 1995.

FOR FURTHER INFORMATION CONTACT: Mr. Lalit Banker, Emission Standards Division (MD-13), U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina 27711, telephone number (919) 541-5420.

SUPPLEMENTARY INFORMATION: On January 25, 1995, the EPA promulgated in the Federal Register (60 FR 4948) final national emission standards for

chromium emissions from hard and decorative chromium electroplating and chromium anodizing tanks. These standards were promulgated as subpart N in 40 CFR part 63. As published, the final regulations contain errors which may prove to be misleading and are in need of clarification. This document contains corrections to editorial errors in the final standards.

List of Subjects in 40 CFR Part 63

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

Dated: June 15, 1995.

Richard D. Wilson,

Acting Assistant Administrator for Air and Radiation.

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

PART 63—[CORRECTED]

1. On page 4963, in the first column, the designations (b)(4) and (5) are corrected to read (b)(5) and (6) in § 63.14 and amendatory instruction number 2 is corrected to read:

"2. Section 63.14 is amended by adding paragraphs (b)(5) and (6) to read as follows:"

2. On page 4966, in the second column, § 63.342 in paragraph (f)(3)(iv) line 8, is corrected to read "for that even and shall report by phone such".

3. On page 4966, in the third column, § 63.343 in paragraph (a)(2) last line, is corrected to read "schedule of § 63.6 (b)(1)."

4. On page 4967, in the second column, § 63.343 in paragraph (a)(5) last line, is corrected to read "that the large designation is met, or by the compliance date specified in paragraph (a)(1)(ii) of this section, whichever is later."

5. On page 4979, in the first column, paragraph 1.2, after the first sentence add the sentence "The sample time has to be at least 2 hours."

6. On page 4986, in the third column, paragraph 3.1.1, in line 2, the word "inner" is corrected to read "inside."

7. On page 4988, in the first column, paragraph 3.1.4, in line 4, the word "absorbing" is corrected to read "pollutant in the absorbing." Also, in line 8, the word "bleak-tight" is corrected to read "leak-tight."

8. On page 4988, in the third column, paragraph 5.1.1.1, in line 9, the word "velocity" is corrected to read "velocity pressure."

9. On page 4990, in the second column, paragraph 5.1.1.3, in lines 4 and 5, remove the words "using velocity

traverse data obtained earlier in the day."

10. On page 4990, in the third column, paragraph 5.1.1.3, in line 1, remove the word "velocity."

11. On page 4990, in the second column, paragraph 5.1.1.5, in lines 2 and 3, remove the words "before sampling."

12. On page 4992, in the first column, paragraph 5.1.2.2, in line 2, the words "and turn" are corrected to read "and seal the port. Turn."

13. On page 4993, in the second column, paragraph 1.2, in line 7, the word "bathreduces" is corrected to read "bath reduces."

14. On page 4993, in the second column, paragraph 2.2, in line 1, the words "Preciser Tensiometer: A Preciser" are corrected to read "Tensiometer: A."

15. On page 4993, in the second column, paragraph 3.1, in lines 2 and 5, remove the words "Preciser."

16. On page 4993, in the third column, paragraph 3.2.(b), in line 2, the figure "40" is corrected to read "45."

17. On page 4993, in the third column, paragraph 4.2, in line 6, remove the word "Preciser."

[FR Doc. 95-15430 Filed 6-26-95; 8:45 am]
BILLING CODE 4560-60-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Health Care Financing Administration

42 CFR Part 413

[BPD-689-F]

RIN 0938-AE80

Medicare Program; Uniform Electronic Cost Reporting System for Hospitals

AGENCY: Health Care Financing Administration (HCFA), HHS.

ACTION: Final rule.

SUMMARY: This final rule responds to comments on the May 25, 1994, final rule with comment period that implemented a standardized electronic cost reporting system for all hospitals under the Medicare program. In that rule, we solicited comments on the requirement that cost reporting software be able to detect changes made to the electronic file after the provider has submitted it to the fiscal intermediary. This final rule responds to comments on that requirement and clarifies that although changes to the "as-filed" electronic cost report are prohibited, an intermediary makes a working copy of the as-filed electronic cost report for use in the settlement process.

EFFECTIVE DATE: These regulations are effective on July 27, 1995.

FOR FURTHER INFORMATION CONTACT: Thomas Talbott (410) 966-4592.

SUPPLEMENTARY INFORMATION:

I. Background

A. General

Under Medicare, hospitals are paid for inpatient hospital services that they furnish to beneficiaries under Part A (Hospital Insurance). Currently, most hospitals are paid for their inpatient hospital services under the prospective payment systems for operating and capital costs in accordance with sections 1886(d) and (g) of the Social Security Act (the Act) and 42 CFR Part 412. Under these systems, Medicare payment is made at a predetermined, specific rate for each hospital discharge based on the information contained on actual bills submitted.

Section 1886(f)(1)(A) of the Act provides that the Secretary will maintain a system for reporting costs of hospitals paid under the prospective payment systems. Section 412.52 requires all hospitals participating in the prospective payment systems to meet the recordkeeping and cost reporting requirements of §§ 413.20 and 413.24, which include submitting a cost report for each 12-month period.

The hospitals and hospital units that are excluded from the prospective payment systems are generally paid an amount based on the reasonable cost of services furnished to beneficiaries. The inpatient operating costs of these hospitals and hospital units are subject to the ceiling on the rate of hospital cost increases in accordance with section 1886(b) of the Act and § 413.40.

Sections 1815(a) and 1833(e) of the Act provide that no payments will be made to a hospital unless it has furnished the information, requested by the Secretary, needed to determine the amount of payments due the hospital under the Medicare program. In general, hospitals submit this information through cost reports that cover a 12-month period.

All hospitals participating in the Medicare program, whether they are paid on a reasonable cost basis or under the prospective payment systems, are required under § 413.20(a) to "maintain sufficient financial records and statistical data for proper determination of costs payable under the program." In addition, hospitals must use standardized definitions and follow accepted accounting, statistical, and reporting practices. Under the provisions of §§ 413.20(b) and 413.24(f), hospitals are required to submit cost

reports annually, with the reporting period based on the hospital's accounting year.

Section 1886(f)(1)(B)(i) of the Act provides that the Secretary will place into effect a standardized electronic cost reporting format for hospitals under Medicare. This standardized electronic cost reporting format does not require any additional data from hospitals. Section 1886(f)(1)(B)(ii) of the Act provides that the Secretary may delay or waive the implementation of the electronic format in instances where such implementation would result in financial hardship for a hospital (for example, a hospital with a small percentage of inpatients entitled to Medicare benefits). These provisions apply to hospital cost reporting periods beginning on or after October 1, 1989.

B. Provisions of the August 19, 1991 Proposed Rule

On August 19, 1991, we published a proposed rule (56 FR 41110) to implement sections 1886(f)(1)(B)(i) and (ii) of the Act. We proposed that cost reports be submitted in a standardized electronic format. We proposed that the hospital's cost report software must be able to produce a standardized output file in American Standard Code for Information Interchange (ASCII) format. We proposed that all intermediaries have the ability to read this standardized file and produce an accurate cost report. We proposed rules for suspension of Medicare payment if a hospital refuses to submit the cost report electronically. We also specified that if a hospital believes that implementation of the electronic submission requirement would cause a financial hardship, the hospital should submit a written request for a waiver or a delay of these requirements, with supporting documentation, to the hospital's intermediary. See section III of the proposed rule (56 FR 41111 through 41112).

C. Provisions of the May 25, 1994 Final Rule With Comment Period

On May 25, 1994, we published a final rule with comment period to confirm the proposed regulations and respond to public comments on the proposed rule (59 FR 26960). As a result of public comments on the proposed rule, we eliminated the requirement that providers file a hard copy cost report in addition to the electronic file. Instead, we required that, in addition to the electronic file, a hospital must submit hard copies of a settlement summary, a statement of certain worksheet totals found in the electronic file, and a signed statement certifying the accuracy of the

manufacturing practice. The affirmation of this ingredient as GRAS as a direct food ingredient is based upon the following current good manufacturing practice conditions of use:

(1) The ingredient is used as an enzyme as defined in § 170.3(o)(9) of this chapter to hydrolyze proteins or polypeptides.

(2) The ingredient is used in food at levels not to exceed current good manufacturing practice.

Dated: June 14, 1995.

Fred. R. Shank.

Director, Center for Food Safety and Applied Nutrition.

[FR Doc. 95-15239 Filed 6-23-95; 8:45 am]
BILLING CODE 4160-01-P

DEPARTMENT OF EDUCATION

34 CFR Parts 75, 200, 201, 364, 365, 366, 367, 386, 388, 396, 403, 405, 406, 607, 641, 647, and 682

Announcement of Effective Dates

AGENCY: Department of Education.

ACTION: Notice of effective dates.

SUMMARY: Prior to its amendment by the Improving America's Schools Act of 1994 (IASA), section 431(d) of the General Education Provisions Act (GEPA) required that most Department of Education regulatory documents be published in the Federal Register for forty-five (45) calendar days, or longer if Congress took certain adjournments, before they became effective. Since future congressional adjournments could not be predicted with certainty when a document was published, the Department could not announce a specific effective date at the time of publication. This notice announces the effective dates for certain regulatory documents subject to the delayed effective date requirement of section 431(d) prior to its amendment.

DATES: For effective dates, see SUPPLEMENTARY INFORMATION.

FOR FURTHER INFORMATION CONTACT: Kenneth C. Depew, Division of Regulations Management, Office of the General Counsel, U.S. Department of Education, Room 5112, FB-10, 600 Independence Avenue SW., Washington, DC 20202-2241; telephone: (202) 401-8300.

Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1-800-877-8339 between 8 a.m. and 8 p.m., Eastern time, Monday through Friday.

SUPPLEMENTARY INFORMATION: GEPA section 431(d) was amended by the

IASA, Pub. L. 103-382, enacted October 20, 1994. Section 431 was also redesignated as section 437. As a consequence of the new legislation, regulations of the Department are no longer subject to a 45-day delayed effective date. This notice announces the effective dates for those regulations subject to the previous statutory requirement for the delayed effective date. In the future, as a result of the new legislation, it will not be necessary for the Department to publish a special announcement of effective dates.

The effective date provision for each of the regulatory documents included in the notice stated that the effective date would be announced in a notice published in the Federal Register. Accordingly, this notice announces the following effective dates:

1. 34 CFR Part 682, final regulations for the Federal Family Education Loan Program, published May 17, 1994 (59 FR 25744).

DATES: Effective date: July 1, 1994.

2. 34 CFR Part 75, final regulations for Direct Grant Programs, published June 10, 1994 (59 FR 30258).

DATES: Effective date: July 25, 1994.

3. 34 CFR Part 386, final regulations for Rehabilitation Training: Rehabilitation Long-Term Training, published June 16, 1994 (59 FR 31060).

DATES: Effective date: July 31, 1994.

4. 34 CFR Part 641, final regulations for the Faculty Development Fellowship Program, published July 1, 1994 (59 FR 34198).

DATES: Effective date: August 15, 1994.

5. 34 CFR Parts 403, 405, and 406, final regulations for the State Vocational and Applied Technology Education Program, National Tech-Prep Education Program, and State-Administer Tech-Prep Education Program, published July 28, 1994 (59 FR 38512).

DATES: Effective date: September 21, 1994.

6. 34 CFR Part 388, final regulations for State Vocational Rehabilitation Unit In-Service Training, published August 5, 1994 (59 FR 40176).

DATES: Effective date: September 21, 1994.

7. 34 CFR Parts 200 and 201, final regulations for the Chapter 1 Program in Local Educational Agencies and Chapter 1—Migrant Education Program, published August 10, 1994 (59 FR 41168).

DATES: Effective date: September 24, 1994.

8. 34 CFR Parts 364, 365, 366, and 367, final regulations for State

Independent Living Services Program and Centers for Independent Living Program: General Provisions, State Independent Living Services, Centers for Independent Living, and Independent Living Services for Older Individuals Who Are Blind, published August 15, 1994 (59 FR 41908).

DATES: Effective date: September 29, 1994.

9. 34 CFR Part 607, final regulations for the Strengthening Institutions Program, published August 15, 1994 (59 FR 41914).

DATES: Effective date: September 29, 1994.

10. 34 CFR Part 647, final regulations for the Ronald E. McNair Postbaccalaureate Achievement Program, published August 25, 1994 (59 FR 43986).

DATES: Effective date: November 7, 1994.

11. 34 CFR Part 396, final regulations for Training Interpreters for Individuals Who Are Deaf and Individuals Who Are Deaf-Blind, published October 14, 1994 (59 FR 52218).

DATES: Effective date: November 28, 1994.

Dated: June 21, 1995.

Judith A. Winston,

General Counsel.

[FR Doc. 95-15559 Filed 6-23-95; 8:45 am]

BILLING CODE 4000-01-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[AD-FRL-5225-9] NES04951

National Emission Standards for Hazardous Air Pollutants for Source Categories: Gasoline Distribution (Stage I)

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule; correction.

SUMMARY: This document makes clarifications and corrects errors in the regulatory text of the final rule for National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations) which appeared in the Federal Register on December 14, 1994 (59 FR 64303).

EFFECTIVE DATE: December 14, 1994.

FOR FURTHER INFORMATION CONTACT: For general and technical information concerning the final rule, contact Mr. Stephen Shedd, Waste and Chemical

Processes Group, Emission Standards Division (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone (919) 541-5397. For information regarding the test methods and procedures referenced in the rule, contact Mr. Roy Huntley, Emission Inventory and Factors Group, Emissions, Monitoring and Analysis Division (MD-14), U.S. Environmental Protection Agency, Research Triangle Park, NC 27704; telephone (919) 541-1060.

SUPPLEMENTARY INFORMATION: On December 14, 1994 (59 FR 64303), the EPA promulgated regulations requiring sources to achieve emission limits reflecting application of the maximum achievable control technology (MACT) consistent with section 112 of the Clean Air Act (Act). The final rule regulates all hazardous air pollutants (HAP) identified in the Act's list of 189 HAP that are emitted from new and existing bulk gasoline terminals and pipeline breakout stations at plant sites that are major sources of HAP. On February 8, 1995 (60 FR 7627), the Office of the Federal Register made three corrections to the regulatory text in the final rule. Today, four additional corrections are being made to correct and clarify requirements in the National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations).

The affected public has requested that the EPA clarify the date of compliance for testing, reporting, and recordkeeping requirements for reducing vapor leakage from gasoline cargo tanks (tank trucks and railcars) loading at major source bulk gasoline terminals affected by this rule. The regulatory text provided compliance dates for the equipment that collects and processes the vapor displaced from cargo tanks and inadvertently did not specify compliance dates for the cargo tank leak testing, reporting, and recordkeeping requirements. The vapor collection and processing equipment requirements in the final rule are required to be met by December 15, 1997 (three years from the effective date) for existing terminals and upon startup for new terminals. The EPA intended that the rule require that all the components of this vapor control system comply during the same compliance period, including cargo tanks. Today's notice is to clarify that the compliance date for both the cargo tank requirements and the other loading rack vapor control requirements occur no later than December 15, 1997 at existing terminals and upon startup at new terminals.

A typographical error was made on an equation in the regulatory text that calculates the minimum allowable final headspace pressure for the nitrogen pressure decay field test for cargo tanks. Additionally, the location of one variable in the subject equation was incorrectly specified. Today's notice corrects the typographical error in both the equation and the location of one of the equation's variables.

Dated: June 15, 1995.

Mary D. Nichols,

Acting Assistant Administrator for Air and Radiation.

The following corrections are being made in the regulatory text for: National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations) published in the Federal Register on December 14, 1994 (59 FR 64303).

§ 63.422 [Corrected]

1. In paragraph (b) of § 63.422 on page 64320, column 1, remove the second sentence "Each owner or operator shall comply as expeditiously as practicable, but no later than December 15, 1997 at existing facilities and upon startup for new facilities."

2. In § 63.422 on page 64320, column 1, add a new paragraph (d) as follows: "(d) Each owner or operator shall meet the requirements in all paragraphs of this section as expeditiously as practicable, but no later than December 15, 1997 at existing facilities and upon startup for new facilities."

§ 63.425 [Corrected]

3. The equation in the paragraph (g)(3) of § 63.425 on page 64321, column 3, is revised to read as follows:

$$P_F = 18 \left(\frac{(18 - N)}{18} \right)^{\left(\frac{V_t}{5(V_h)} \right)}$$

4. The reference to Table 2 in paragraph (g)(3) of § 63.425 on page 64322, column 1, first two lines, is revised to read as follows: "column of Table 2 of § 63.425(e)(1), inches H₂O."

[FR Doc. 95-15431 Filed 6-23-95; 8:45 am]

BILLING CODE 6560-50-P

40 CFR Part 70

[AD-FRL-5226-7]

Clean Air Act Final Full Approval of Operating Permits Program; State of South Carolina

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final full approval.

SUMMARY: The EPA is promulgating full approval of the Operating Permits Program submitted by the State of South Carolina through the South Carolina Department of Health and Environmental Control (DHEC) for the purpose of complying with Federal requirements for an approvable State program to issue operating permits to all major stationary sources and to certain other sources.

EFFECTIVE DATE: July 26, 1995.

ADDRESSES: Copies of the State's submittal and other supporting information used in developing the final full approval are available for inspection during normal business hours at the following location: U.S. Environmental Protection Agency, Region 4, 345 Courtland Street NE, Atlanta, Georgia 30365, on the 3rd floor of the Tower Building. Interested persons wanting to examine these documents, contained in EPA docket number SC-94-01, should make an appointment at least 24 hours before the visiting day.

FOR FURTHER INFORMATION CONTACT:

Kelly Fortin, Title V Program Development Team, Air Programs Branch, Air Pesticides & Toxics Management Division, U.S. EPA Region 4, 345 Courtland Street NE, Atlanta, GA 30365, (404) 347-3555 extension 4223.

SUPPLEMENTARY INFORMATION:

I. Background and Purpose

A. Introduction

Title V of the 1990 Clean Air Act Amendments (sections 501-507 of the Clean Air Act ("the Act")), and implementing regulations at 40 Code of Federal Regulations (CFR) part 70 require that States develop and submit operating permits programs to EPA by November 15, 1993, and that EPA act to approve or disapprove each program within 1 year after receiving the submittal. EPA's program review occurs pursuant to section 502 of the Act and the part 70 regulations, which together outline criteria for approval or disapproval. Where a program substantially, but not fully, meets the requirements of part 70, EPA may grant the program interim approval for a period of up to two years. If EPA has not

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 9, 60 and 63

[AD-FRL-5272-1]

RIN 2060-AD94

National Emission Standards for Hazardous Air Pollutants: Petroleum Refineries

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This final rule promulgates national emission standards for hazardous air pollutants (NESHAP) for petroleum refineries. This rule implements section 112 of the Clean Air Act (Act) and are based on the Administrator's determination that petroleum refineries emit organic hazardous air pollutants (HAPs) identified on the EPA's list of 189 HAPs. The health effects of exposure to HAPs can include cancer, respiratory irritation and damage to the nervous system. The petroleum refinery NESHAP requires petroleum refineries located at major sources to meet emission standards reflecting the application of the maximum achievable control technology (MACT), consistent with sections 112(d) and (h) of the Act. The petroleum refinery affected source is defined to include petroleum refinery process units, marine tank vessel loading operations, and gasoline loading rack operations classified under Standard Industrial Classification (SIC) code 2911 emission points located at petroleum refineries. The petroleum refinery affected source and source category description are revised to reflect the inclusion of these emission points. This action also amends two standards of performance for two stationary sources: Standards of performance for equipment leaks of volatile organic compounds (VOC) in the synthetic organic chemicals manufacturing industry (SOCMI); and standards of performance for VOC emissions from petroleum refinery wastewater systems. The amended standards were previously promulgated under section 111 of the Act.

EFFECTIVE DATE: August 18, 1995. See the Supplementary Information section concerning judicial review.

ADDRESSES: Docket. Docket No. A-93-48, containing information considered by the EPA in development of the promulgated standards, is available for public inspection between 8 a.m. and 4 p.m., Monday through Friday except for Federal holidays, at the following

address: U.S. Environmental Protection Agency, Air and Radiation Docket and Information Center (MC-6102), 401 M Street SW, Washington, DC 20460; telephone: (202) 260-7548. The docket is located at the above address in Room M-1500, Waterside Mall (ground floor). A reasonable fee may be charged for copying.

Response to Comment Document. The response to comment document for the promulgated standards may be obtained from the U.S. EPA Library (MD-35), Research Triangle Park, North Carolina 27711, telephone (919) 541-2777; or from the National Technical Information Services, 5285 Port Royal Road, Springfield, Virginia 22151, telephone (703) 487-4650. Please refer to "National Emission Standards for Hazardous Air Pollutants, Petroleum Refineries-Background Information for Final Standards, Summary of Public Comments and Responses" (EPA No.-453/R-95-015b). The document contains: (1) A summary of all the public comments made on the proposed standards and the Administrator's response to the comments; and (2) a summary of the changes made to the standards since proposal. This document is also available for downloading from the Technology Transfer Network (see below) under the Clean Air Act, Recently Signed Rules.

Technology Transfer Network. The Technology Transfer Network is one of the EPA's electronic bulletin boards. The Technology Transfer Network provides information and technology exchange in various areas of air pollution control. The service is free except for the cost of a phone call. Dial (919) 541-5472 for up to a 14,400 bps modem. If more information on the Technology Transfer Network is needed call the HELP line at (919) 541-5384.

FOR FURTHER INFORMATION CONTACT: For information concerning the final standards, contact Mr. James Durham, Waste and Chemical Processes Group, Emission Standards Division (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina, 27711, telephone number (919) 541-5672.

SUPPLEMENTARY INFORMATION: *Judicial Review.* National emission standards for HAP's for petroleum refineries were proposed in the Federal Register (FR) on July 15, 1994 (59 FR 36130). This Federal Register action announces the EPA's final decisions on the rule. Under section 307(b)(1) of the Act, judicial review of the NESHAP is available only by the petition for review in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days of

today's publication of this final rule. Under section 307(b)(2) of the Act, the requirements that are the subject of today's notice may not be challenged later in civil or criminal proceedings brought by the EPA to enforce these requirements.

The following outline is provided to aid in reading the preamble to the final regulation.

- I. Background
- II. Summary of Considerations in Developing the Rule
 - A. Purpose of Regulation
 - B. Technical Basis of Regulation
 - C. Stakeholder and Public Participation
- III. Summary of Promulgated Standards
 - A. Miscellaneous Process Vent Provisions
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 - E. Marine Vessel Loading and Unloading, Bulk Gasoline Terminal or Pipeline Breakout Station Storage Vessels, and Bulk Gasoline Terminal Loading Rack Provisions
 - F. Recordkeeping and Reporting Provisions
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- IV. Summary of Impacts
- V. Significant Comments and Changes to the Proposed Standards
 - A. Process Vents Group Determination
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 - I. Subcategorization
 - J. Economic Analysis
 - K. Benefits Analysis
 - L. Emissions Data
- VI. Changes to NSPS
- VII. Administrative Requirements
 - A. Docket
 - B. Paperwork Reduction Act
 - C. Executive Order 12866
 - D. Regulatory Flexibility Act
 - E. Unfunded Mandates

I. Background

Section 112(b) of the Act lists 189 HAP's and directs the EPA to develop rules to control all major and some area sources emitting HAP's. On July 16, 1992 (57 FR 31576), the EPA published a list of major and area sources for which NESHAP are to be promulgated. Petroleum refineries were listed as a category of major sources. On December 3, 1993 (58 FR 83941), the EPA published a schedule for promulgating standards for the listed major and area sources. Standards for the petroleum refinery source category for sources not distinctly listed were scheduled for promulgation on November 15, 1994. The EPA is promulgating these standards under a July 28, 1995 court-ordered deadline.

II. Summary of Considerations in Developing the Rule

A. Purpose of Regulation

The Act was developed, in part,

To protect and enhance the quality of the Nations air resources so as to promote the public health and welfare and the productive capacity of its population (the Act, section 101(b)(1)).

Petroleum refineries are major sources of HAP emissions. Individual refineries emit over 23 megagrams per year (Mg/yr) (25 tons per year (tpy)) of organic HAP's including benzene, toluene, ethyl benzene, and other HAP's. The HAP's controlled by this rule are associated with a variety of adverse health effects. The range of adverse health effects include cancer and a number of other chronic health disorders (e.g., aplastic anemia, pancytopenia, pernicious anemia, pulmonary (lung) structural changes) and a number of acute health disorders (e.g., dyspnea (difficulty in breathing), upper respiratory tract irritation with cough, conjunctivitis, neurotoxic effects (e.g., visual blurring, tremors, delirium, unconsciousness, coma, convulsions). Table 1 presents the 11 most significant organic HAP's emitted from the petroleum refineries. Petroleum refineries also emit inorganic HAP's (e.g., hydrogen fluoride, hydrogen chloride). Inorganic HAP emissions from the emission points covered under this rule are low relative to organic HAP emissions. Emission points emitting inorganic HAP's are included in a separate source category under a separate schedule.

TABLE 1.—SIGNIFICANT HAZARDOUS AIR POLLUTANTS FROM PETROLEUM REFINERIES

(Hazardous Air Pollutant)	
2,2,4-Trimethylpentane	Methyl tert butyl ether.
Benzene	Naphthalene.
Cresols/cresylic acid	Phenol.
Ethylbenzene	Toluene.
Hexane	Xylenes.
Methyl ethyl ketone	

The catalytic cracking unit catalyst regeneration vent emits primarily metal HAP's, which would be controlled using particulate controls. Catalytic reformer catalyst regeneration vents emit hydrogen chloride, and sulfur plant vents emit carbonyl sulfide and carbon disulfide. Because of these compounds'

unique characteristics, the EPA concluded that these emission points warranted separate consideration for control of inorganic HAP's. Because limited data are currently available, these emission points are included in a separate source category under a separate schedule.

The Regulatory Impacts Analysis (RIA) presents the results of an examination of the potential health and welfare benefits associated with air emission reductions projected as a result of implementation of the petroleum refinery NESHAP. Of the pollutants emitted by petroleum refineries, some are classified as VOC, which are ozone precursors. Benefits from HAP emission reductions are presented separately from the benefits associated specifically with VOC emission reductions.

The predicted emissions of a few HAP's associated with this regulation have been classified as possible, probable, or known human carcinogens. Benzene and cresols are the two HAP's identified as carcinogens.

Benzene is classified as a class A or a known human carcinogen. Benzene is a concern to the EPA because long term exposure to this chemical causes an increased risk of cancer in humans, and is also associated with aplastic anemia, pancytopenia, chromosomal breakages, and weakening of the bone marrow.

Cresols are classified as class C or possible human carcinogens. For this HAP, there is either inadequate data or no data on human carcinogenicity. Therefore, while cancer risk is a possibility, there is not sufficient evidence to quantify the increased cancer risk to humans caused by these chemicals.

There are serious health effects reported from exposure to some of the noncarcinogenic HAP's. These serious health effects typically occur at higher levels of exposure than estimated for the regulatory baseline. Exposure to phenol is very toxic to animals and increases mortality, but there is little human data. Exposure to n-hexane can cause polyneuropathy (muscle weakness and numbness) in humans, and exposure to naphthalene is linked to cataracts and anemia in human infants. It is also possible that there are less serious health effects in the regulatory baseline from exposure to these HAP's.

Emissions of VOC have been associated with a variety of health and welfare impacts. Volatile organic compound emissions, together with nitrogen oxides (NO_x), are precursors to the formation of tropospheric ozone. Exposure to ambient ozone is responsible for a series of health

impacts, such as alterations in lung capacity; eye, nose, and throat irritation; malaise and nausea; and aggravation of existing respiratory disease. Among the welfare impacts from exposure to ambient ozone include damage to selected commercial timber species and economic losses for commercially valuable crops such as soybeans and cotton.

Based on existing data, the benefits associated with reduced HAP and VOC emissions were quantified. The quantification of dollar benefits for all benefit categories is not possible at this time because of limitations in both data and available methodologies. Although an estimate of the total reduction in HAP emissions for various regulatory alternatives has been developed for the RIA, it has not been possible to identify the specification of the HAP emission reductions for each type of emission point. However, an estimate of HAP speciation for equipment leaks has been made. Using emissions data for equipment leaks and the Human Exposure Model (version 1), the annual cancer risk caused by HAP emissions from petroleum refineries was estimated. Generally, this benefit category is calculated as the difference in estimated annual cancer incidence before and after implementation of each regulatory alternative. Since the annual cancer incidence associated with baseline conditions was less than one life per year, the cancer benefits associated with HAP reductions for the petroleum refinery NESHAP were determined to be low. Therefore, these quantified benefits are not part of the overall quantified benefits estimate for the analysis.

The benefits of reduced emissions of VOC from a MACT regulation of petroleum refineries were quantified using the technique of "benefits transfer." Because analysis by the Office of Technology Assessment from which benefits transfer values were obtained only estimated acute health benefits in ozone nonattainment areas, the transfer values can be applied to VOC reductions occurring only in ozone nonattainment areas. The range of benefit transfer values used in this analysis is from \$25 to \$1,574 per megagram (Mg) (\$23 to \$1,431 per ton) of VOC with an average of \$800/Mg (\$727/ton) of VOC.

In order to quantify benefits from VOC emission reductions, the average value is multiplied by VOC emission reductions from petroleum refineries in ozone nonattainment areas. Estimated annual benefits for VOC reductions are \$108.8 million for selected regulatory alternatives. The quantified annual

benefits exceed annual compliance costs by \$29.8 million (1992 dollars).

The promulgated NESHAP will reduce HAP emissions from petroleum refineries by 59 percent. Table 2

presents the national baseline emissions and emission reductions for petroleum refinery process vents, storage vessels, wastewater, and equipment leaks. The emissions reductions for controlling

gasoline loading racks and the marine vessel loading emission points are discussed in supporting material for the Gasoline Distribution (Stage I) and the Marine Vessel Loading Operations rules.

TABLE 2.—NATIONAL PRIMARY AIR POLLUTION IMPACT IN THE FIFTH YEAR

Source	Baseline emissions (Mg/yr)		Emission reductions			
	HAP	VOC	(Mg/yr)		(Percent)	
			HAP	VOC	HAP	VOC
Miscellaneous process vents	10,000	109,000	6,700	85,000	67	78
Equipment leaks	52,000	189,000	40,000	146,000	77	77
Storage vessels	9,300	111,000	1,300	21,000	14	19
Wastewater collection and treatment	10,000	10,000	(*)	(*)	(*)	(*)
Total	81,300	419,000	48,000	252,000	59	60

* The MACT level of control is no additional control.

B. Technical Basis of Regulation

National emission standards for major sources of HAP's established under section 112 of the Act reflect MACT or:

* * * the maximum degree of reduction in emissions of the HAP * * * that the Administrator, taking into consideration the cost of achieving such emission reduction, and any nonair quality health and environmental impacts and energy requirements, determine is achievable for new or existing sources in the category or subcategory to which such emission standard applies * * * (the Act section 112(d)(2)).

Prior to proposal, section 114 questionnaires, information collection requests (ICR's), and telephone surveys were used to obtain information on emissions, emissions control, and emissions control costs for petroleum refinery emission points. Section 114 questionnaires were sent out to nine large refineries, of approximately 130 existing petroleum refineries nationally, to obtain emissions and emissions control information for equipment leaks, wastewater, process vents, and storage vessel emission points located in a petroleum refinery. The ICR's were sent out to the refineries that were not sent section 114 questionnaires to obtain information on emissions control equipment and emissions for process vents, storage vessels, and equipment leaks emission points. A telephone survey of equipment vendors was conducted to obtain leak detection and repair (LDAR) cost information.

Data and information were received for approximately 130 petroleum refineries. This information was used, in part, as the technical basis in determining the MACT level of control for the process units covered under this rule. In addition to information collected from industry, the EPA used information on refinery locations and

processes available in the general literature. The EPA also used control technology performance and cost information developed under previous rulemakings for the petroleum and chemical industries, such as the petroleum refinery new source performance standard (NSPS), benzene NESHAP, and synthetic organic chemical manufacturing industry (SOCMI) standards. The EPA also considered existing State regulations and additional information received during the public comment period for the proposed rule in developing the final rule.

C. Stakeholder and Public Participation

In the development of this rule, numerous representatives of the petroleum refinery industry were consulted prior to proposal. Industry representatives have included trade associations, and refiners responding to section 114 questionnaires, ICR's, and telephone surveys. Representatives from State agencies and the EPA regions were also consulted and participated in the development of the rule.

The standards were proposed and published in the Federal Register on July 15, 1994 (59 FR 36130). The preamble to the proposed standard describes the rationale for the proposed rule. Public comments were solicited at the time of proposal.

To provide interested persons the opportunity for oral presentation of data, views, or arguments concerning the proposed standards, a public hearing was offered at proposal. A public hearing was held in Research Triangle Park, North Carolina, on August 5, 1994. The hearing was open to the public and four persons presented oral testimony. The public comment period was from July 15, 1994 to

September 13, 1994. Sixty-two comment letters were received. Commenters included industry representatives, States, environmental organizations, and others. The comments have been carefully considered, and changes have been made in the proposed standards when determined by the Administrator to be appropriate. A detailed discussion of these comments and responses can be found in the Response of Comment Document, which is referenced in the ADDRESSES section of this preamble. The summary of comments and responses in the document serve as the basis for the revisions that have been made to the standards between proposal and promulgation. Section V of this preamble discusses the major comments that resulted in changes to the standards.

III. Summary of Promulgated Standards

The promulgated standard applies to petroleum refining process units as well as other colocated emission points that are part of a plant site that is a major source as defined in section 112 of the Act. The determination of potential to emit, and therefore major source status, is based on the total of all HAP emissions from all activities at the plant site. The applicability section of the regulation specifies what is included in the petroleum refining source category and defines the sources regulated by the NESHAP.

The general standards consist of compliance dates for new and existing sources, require sources to be properly operated and maintained at all times, and clarify the applicability of the NESHAP General Provisions (40 Code of Federal Regulations (CFR) part 63, subpart A) to sources subject to subpart CC.

The affected source comprises the miscellaneous process vents, storage vessels, wastewater streams, and equipment leaks associated with petroleum refining process units, and marine tank vessel loading operations and gasoline loading racks classified under SIC code 2911 located at a refinery. The inclusion of marine tank vessel loading operations and gasoline loading racks in the definition of the petroleum refinery affected source and source category is a revision from the proposal. These emission points have been included as part of the petroleum refinery affected source and source category to permit an owner or operator of a petroleum refinery to average emissions among emission points collocated at the refinery to comply with the standards. These standards do not apply to distillation units located at pipeline pumping stations whose primary purpose is to produce fuel to operate turbines and internal combustion engines at the pipeline pumping stations. A summary of the specific provisions that apply to each of the emission points contained within a petroleum refinery affected source follows. All of the specified provisions for each of the covered emission points allow for, or are based on and encourage, pollution prevention.

These standards do not address three vents that will be subject to future NESHAP standards. These are the catalyst regeneration vents on catalytic cracking units and catalytic reforming units (CRU's) and vents from sulfur recovery units (SRU's). Industry is concerned that standards for these three vents will require the use of control technologies designed to reduce non-HAP emissions and will preclude the use of alternatives that can achieve comparable HAP control at a lower cost. The EPA recognizes that standards should be structured on a performance basis wherever possible to ensure that industry is provided the flexibility to seek out and implement cost-effective controls. The EPA's existing standards for sulfur dioxide and particulate matter emissions from new FCCU catalyst regenerator vents demonstrate such recognition. The allowable emissions were expressed in terms of the amount of coke burned off the catalyst in order to provide industry with the flexibility to comply through operational changes or through traditional end-of-pipe controls or a combination of the two. The EPA has every intention to ensure that future rules also provide similar flexibility.

A. Miscellaneous Process Vent Provisions

Miscellaneous process vents include vents from petroleum refining process units that emit organic HAP's. Vents that are routed to the refinery fuel gas system are considered to be part of the process and are not subject to the standard. The miscellaneous process vent provisions define two groups of vents. Group 1 process vents are those with VOC emissions greater than or equal to 33 kilograms per day (kg/day) (72 pounds per day (lb/day)) for existing sources and 6.8 kg/day (15 lb/day) for new sources. Group 2 vents are vents with emissions below these levels.

The miscellaneous process vent provisions for new and existing sources require the owner or operator of a Group 1 miscellaneous process vent to reduce organic HAP emissions by 98 percent or to less than 20 parts per million by volume (ppmv), or to reduce emissions using a flare meeting the requirements of § 63.11(b) of the NESHAP General Provisions (40 CFR part 63, subpart A).

Monitoring requirements for Group 1 vents include an initial performance demonstration and monitoring of control device operating parameters. The owner could also comply by reducing emissions from a Group 1 process vent to less than 33 kg/day (72 lb/day) for existing sources and 6.8 kg/day (15 lb/day) for new sources, thereby converting it to a Group 2 process vent. No controls or monitoring are required for Group 2 process vents.

B. Storage Vessel Provisions

The storage vessel provisions define two groups of vessels: Group 1 vessels are vessels with a design storage capacity and a maximum true vapor pressure above the values specified in the regulation. Group 2 vessels are all storage vessels that are not Group 1 vessels. The storage vessel provisions require that one of the following control systems be applied to Group 1 storage vessels: (1) An internal floating roof (IFR) with proper seals; (2) an external floating roof (EFR) with proper seals; (3) an EFR converted to an IFR with proper seals; or (4) a closed vent system to a control device that reduces HAP emissions by 95 percent or to 20 ppmv. The storage provisions give details on the type of seals required. Monitoring and compliance provisions for Group 1 vessels include periodic external visual inspections of vessels and roof seals, as well as less frequent internal inspections. If a closed vent system and control device is used for venting emissions from Group 1 storage vessels, the owner or operator must establish

appropriate monitoring procedures. No controls or inspections are required for Group 2 storage vessels.

For existing sources, the final rule requires that fixed roof tanks with capacities greater than or equal to 177 cubic meters (m^3) (47,000 gallons (gal)) that store liquids containing more than 4 percent organic HAP with vapor pressures greater than 10.4 kilopascals (kPa) (1.5 pounds per square inch absolute (psia)) comply fully with the rule within 3 years. If an owner or operator must replace an existing fixed roof tank in order to comply with the rule, it would be reasonable for the State to grant an additional year to comply as authorized under section 112(i)(3)(B) of the Act (a total of four years). This additional time would allow time to design and construct tanks without disrupting refinery operations that could create additional emissions. Owners or operators of IFR or EFR tanks are allowed to defer upgrading of their seals to meet the NESHAP requirements until the next scheduled inspection and maintenance activity or within 10 years, whichever comes first.

For new sources, the final rule requires that vessels with capacities greater than or equal to 151 m^3 (40,000 gal), that store liquids containing more than 2 percent organic HAP with vapor pressures equal to or greater than 3.4 kPa (0.5 psia), and vessels with capacities equal to or greater than 76 m^3 (20,000 gal) storing liquids containing more than 2 percent organic HAP with vapor pressures equal to or greater than 77 kPa (11.1 psia) comply with the level of control required by 40 CFR part 63, subpart G (including the controlled fitting requirements).

C. Wastewater Provisions

The wastewater provisions define two groups of wastewater streams. Group 1 streams are those that are located at a refinery with a total annual benzene loading of at least 10 megagrams per year (Mg/yr) (11 tpy) and are not exempt from control requirements under 40 CFR part 61, subpart FF (the benzene waste operations NESHAP or BWON). In general, streams are not exempt from 40 CFR part 61 subpart FF if they contain a concentration of at least 10 parts per million by weight (ppmw) benzene, and have a flow rate of at least 0.02 liters per minute (L/min) (0.005 gallons per minute (gal/min)). Group 2 streams are wastewater streams that are not Group 1.

The wastewater provisions of the final rule refer to the BWON for both new and existing sources, which requires owners or operators of a Group 1 wastewater stream to reduce benzene

mass emissions by 99 percent using suppression followed by steam stripping, biotreatment, or other treatment processes. Vents from steam strippers and other waste management or treatment units are required to be controlled by a control device achieving 95 percent emissions reduction or 20 ppmv at the outlet of the control device. The performance tests, monitoring, reporting, and recordkeeping provisions required to demonstrate compliance are included in the BWON. No controls or monitoring are required for Group 2 wastewater streams.

D. Equipment Leak Provisions

The equipment leak standards for the petroleum refinery NESHAP allow owners or operators of existing sources to choose between complying with equipment leaks provisions in 40 CFR part 60, subpart VV (NSPS for Equipment Leaks) or complying with a modified negotiated regulation for equipment leaks presented in 40 CFR part 63, subpart H (Hazardous Organic NESHAP or HON equipment leaks). The differences in the NSPS equipment leak requirements and the HON equipment leak requirements are in the leak definitions and connector monitoring provisions.

Under either of the two options, existing refineries subject to the rule will be required to implement a LDAR program with the same leak definitions (10,000 parts per million (ppm)) and frequencies as specified in 40 CFR part 60, subpart VV within 3 years after promulgation of the petroleum refineries NESHAP. Refineries that choose to comply with the modified negotiated regulation would implement the Phase II leak definitions and frequencies at the end of the fourth year, and comply with Phase III requirements 5½ years after promulgation. Phase III defines a leak at a lower level, but allows less frequent monitoring for good performers. Although the modified negotiated regulation is not required in the final rule, the EPA believes that it

would provide greater emission reductions and, in many cases, would be more cost effective than 40 CFR part 60, subpart VV and could even provide cost savings. Cost savings would occur because it would reduce equipment leak product loss, and facilities with a low percentage of leaking valves would be able to monitor less frequently, thereby reducing monitoring costs.

New sources must comply at startup with the modified negotiated regulation; pumps and valves at new sources must be in compliance with the Phase II requirements at startup rather than Phase I. This is consistent with the negotiated rule (40 CFR part 63, subpart H).

E. Marine Tank Vessel Loading and Gasoline Loading Rack Provisions

The final refineries NESHAP requires marine tank vessel loading operations at refineries to comply with the marine loading NESHAP (40 CFR part 63, subpart Y) unless they are included in an emissions average. Gasoline loading racks classified under SIC code 2911 at refineries are required to comply with the 40 CFR part 63, subpart R loading rack provisions unless they are included in an emissions average.

F. Recordkeeping and Reporting Provisions

The final rule requires that petroleum refineries subject to 40 CFR part 63, subpart CC maintain required records for a period of at least 5 years. The final rule requires that the following reports be submitted: (1) A Notification of compliance status report, (2) periodic reports, and (3) other reports (e.g., notifications of storage vessel internal inspections; startup, shutdown, and malfunction reports).

G. Emissions Averaging

The EPA is allowing emissions averaging among existing miscellaneous process vents, storage vessels, wastewater streams, marine tank vessel loading operations, and gasoline loading racks classified under SIC code 2911

located at a refinery. New sources are not allowed to use emissions averaging. Under emissions averaging, a system of emission "credits" and "debits" is allowed to determine whether a source is achieving the required emission reductions.

IV. Summary of Impacts

The impacts presented in this section include process vents, storage vessels, equipment leaks, and wastewater streams from petroleum refinery process units. Impacts for control of marine tank vessel loading operations and gasoline loading rack operations classified under SIC code 2911 located at refineries are presented in the background documentation for 40 CFR part 63, subparts Y and R.

These standards will reduce nationwide emissions of HAP from petroleum refineries by 48,000 Mg/yr (53,000 tpy), or 59 percent by 1998 compared to the emissions that would result in the absence of standards. No adverse secondary air impacts, water or solid waste impacts are anticipated from the promulgation of these standards.

The national electric usage required to comply with the rule is expected to increase by 48 million kilowatt-hours per year, which is equivalent to approximately 77,500 barrels of oil.

The implementation of this regulation is expected to result in an overall annual national cost of \$79 million. This includes a cost of \$59 million from operation of control devices, and a monitoring, recordkeeping, and reporting cost of \$20 million. The monitoring, reporting, and recordkeeping cost has been reduced by 25 percent from proposal. Table 3 presents the national control cost impacts for petroleum refinery process vents, storage vessels, wastewater, and equipment leaks. The control costs for gasoline loading racks and marine tank vessel loading operations are discussed in supporting material for the Gasoline Distribution (Stage I) and the Marine Vessel Loading Operations rules.

TABLE 3.—NATIONAL CONTROL COST IMPACTS IN THE FIFTH YEAR

Source	Total * capital costs * (\$10 ⁶)	Total * annual costs (\$10 ⁶ /yr)	Average HAP cost effectiveness (\$/Mg HAP)	Average VOC cost effectiveness (\$/Mg VOC)
Miscellaneous process vents	21 (2)	12 (1)	1,800	140
Equipment leaks	142 (16)	58 (17)	1,500	400
Storage vessels	48 (1)	8 (1)	6,100	380
Wastewater collection and treatment	(c)	(c)	(c)	(c)
Other recordkeeping and reporting	2	1	(c)	(c)

TABLE 3.—NATIONAL CONTROL COST IMPACTS IN THE FIFTH YEAR—Continued

Source	Total* capital costs ^b (\$10 ⁶)	Total* annual costs (\$10 ⁶ /yr)	Average HAP cost effectiveness (\$/Mg HAP)	Average VOC cost effectiveness (\$/Mg VOC)
Total	213 (21)	79 (20)	1,500	310

*Numbers in parentheses are recordkeeping and reporting costs included in total annual cost and total capital cost estimates. For equipment leaks, activities associated with setting up and operating a LDAR program (e.g., tagging and identifying, monitoring, data entry, setting up a data management system, etc.) are not reflected in the equipment leak recordkeeping and reporting costs, but are included in the equipment leak total annual cost and total capital cost estimate.

^bTotal capital costs incurred in the 5-year period.

^cThe MACT level of control is no additional control.

^dNot applicable.

The EPA estimates that changes in the compliance times for storage vessels with floating roofs and changes to the process vents Group 1 applicability cutoff will provide substantial cost savings and emissions reductions for refineries. Estimates of degassing and cleaning storage tank costs provided by the refining industry indicate that premature (within 3 years of promulgation) degassing and cleaning activities would cost between \$34,000 and \$213,000 per floating roof tank depending on the type of material stored. If extrapolated to the entire refining industry for floating roof tanks, the cost savings from allowing floating roofs to comply at the next scheduled maintenance would be \$6.6 million per year.

The EPA determined that substantial HAP emissions occur when storage vessels are degassed and cleaned. Typically, storage vessels are inspected and maintained on a 10-year schedule, at which time tanks are degassed and cleaned. If a 3-year compliance schedule were required, storage vessels would be degassed and cleaned prematurely, resulting in substantial HAP emissions caused by the rule. These HAP emissions could not be balanced in less than 5 years for floating roof tanks by the emission reduction achieved from complying with the rule. By changing the proposed rule to allow floating roof tanks to comply with the storage vessel requirements 10 years after promulgation of the rule or at the next scheduled inspection, the EPA estimates that 3,000 Mg/yr (2,700 tpy) of HAP, or 8,000 Mg (7,200 tpy) of HAP over 3 years, would be prevented from being emitted.

The existing source process vent applicability cutoff (33 kg of VOC/day (72 lb of VOC/day) per vent) will exclude 3,000 vents from requiring control at a total annual cost savings of \$4.5 million. The new source process vent applicability cutoff (7 kg of VOC/day (15 lb of VOC/day) per vent) will exclude 35 vents from requiring control

at a total annual cost savings of \$25,000. The total annual cost reduction of these changes in the rule is a reduction of approximately \$11 million.

The economic impact analysis for the selected regulatory alternatives shows that the estimated price increases for affected products range from 0.24 percent for residual fuel oil to 0.53 percent for jet fuel. Estimated decreases in product output range from 0.13 percent for jet fuel to 0.50 percent for residual fuel oil. Annual net exports (exports minus imports) are predicted to decrease by 2.3 million barrels, with the range of reductions varying from 0.21 million barrels for liquid petroleum gas to 0.91 million barrels for residual fuel oil.

Between zero and seven refineries, all of which are classified as small, may close due to the regulation. For more information, consult the "Economic Impact Analysis for the Petroleum Refinery NESHAP" in the docket (see ADDRESSES section of this preamble).

V. Significant Comments and Changes to the Proposed Standards

In response to comments received on the proposed standards, several changes have been made to the final rule. While several of these changes are clarifications designed to make the Agency's intent clearer, a number of them are significant changes to the proposed standard requirements. A summary of the substantive comments and/or changes made since the proposal are described in the following sections. Detailed Agency responses to public comments and the revised analysis for the final rule are contained in the BID and docket (see ADDRESSES section of this preamble).

A. Process Vents Group Determination

The proposed NESHAP would have required control of all miscellaneous process vents with HAP concentrations over 20 ppmv. This level was based on the fact that combustion control technologies can reduce organic emissions by 98 percent or to 20 ppmv,

but cannot necessarily achieve lower concentrations. Several commenters suggested that other applicability criteria were needed to determine which process vents are required to apply control. They pointed out that the HON and State regulations use a total resource effectiveness (TRE) or emission rate cutoff to exclude small vents that have low emission potential and high costs from control requirements. The commenters contended that the MACT floor does not include control of such vents.

In response to these comments, the EPA examined potential control applicability criteria. The EPA reevaluated the miscellaneous process vents data base. The EPA's information on miscellaneous process vent streams was insufficient to establish an emission rate cutoff. This was because industry did not have sufficient information on the HAP and VOC content of vent streams requested by the section 114 questionnaires and ICR's and it would have been impractical to obtain this information. Therefore, as suggested by a number of commenters, and after consultations with industry and others, the EPA decided to use State regulations.

The EPA evaluated the current level of control for miscellaneous process vents in eight States and two air districts that contain the majority of refineries and were expected to have the most stringent regulations. Of the refineries in the United States, the 12 percent that are subject to the most stringent regulations are located in three States. In these three States, miscellaneous process vents emitting greater than 6.8 to 45 kg/day (15 to 100 lb/day) of VOC are required to be controlled. The median applicability cutoff level for the 12 percent of U.S. refineries subject to the most stringent regulations is 33 kg/day (72 lb/day VOC). Thus, control of vents with VOC emissions greater than 33 kg/day (72 lb/day) is the MACT floor for existing sources and 6.8 kg/day (15 lb/day) is the

MACT floor level of control for new sources. The primary organic HAP's at refineries are also VOC. Additionally, a VOC-based applicability criteria is most reflective of the current level of control required for miscellaneous process vents as the majority of State regulations are expressed in terms of VOC. Therefore, the EPA has adopted these emission levels in the final rule to distinguish Group 1 from Group 2 vents. Group 1 vents are those that emit over 33 kg/day (72 lb/day) for existing sources and over 6.8 kg/day (15 lb/day) for new sources. Group 1 vents must be controlled, whereas Group 2 vents (which emit less than 33 kg/day (72 lb/day) for existing sources and less than 6.8 kg/day (15 lb/day) for new sources) are not required to apply controls under the final rule. The 33 kg/day (72 lb/day) and 6.8 kg/day (15 lb/day) applicability limits are to be determined as the gases exit from process unit equipment (including any recovery devices) and prior to any non-recovery emission control device.

B. Process Vent Impacts

At proposal, the EPA estimated that the baseline HAP and VOC emissions from process vents were 9,800 Mg/yr (10,780 tpy) and 190,000 Mg/yr (209,000 tpy), respectively. Several commenters contended that the impacts analysis for process vents should be redone because: (1) The data base used in the analysis contained several errors, and (2) the emission estimation methodology was incorrect. The commenters asserted that these inaccuracies resulted in overestimates of emissions. Some of the commenters asserted that the data base flaws included: (1) A lack of data concerning the number, flowrates, and HAP concentrations of miscellaneous process vents, and (2) an erroneously high percentage of controlled vents because many uncontrolled vents were not reported. Some of the commenters contended that the emission estimation methodology was flawed because (1) It included wastewater and maintenance emissions, (2) emission factors were calculated from a HAP-to-VOC ratio that included reformer emissions, and (3) alkylation emissions and crude unit emissions were based on one refinery where vents were uncontrolled at the time of the questionnaire and are now controlled.

The EPA agrees with the commenters that the process vents emission impacts estimate has several assumptions that needed to be reanalyzed. The EPA also agrees that the data base used at proposal should be reevaluated to consider the commenters' concerns. Therefore, the EPA has reestimated the

emissions and cost impacts of the process vents provisions using the commenters' recommendations.

The emissions at proposal were estimated using responses from only the section 114 questionnaires extrapolated to the entire refining industry. Because the section 114 questionnaires were sent to the largest companies, the data obtained from them skewed the results based on what the largest refineries did. The revised emissions were estimated using data from both the section 114 and ICR responses. The ICR questionnaires were sent to refineries not receiving the section 114 questionnaires. This additional data increased the number of vents in the data base by 1,300. The increase in vents resulted in a decrease in controlled vents from 40 percent to 24 percent. However, information on the HAP and VOC content of vent streams remained limited as no new data was provided by the ICR respondents. Additionally, no new HAP information was provided by industry after proposal of the rule.

Additionally, errors in the data base were corrected and non-miscellaneous process vents were removed from the data base (e.g., vents from wastewater, maintenance, catalytic reformer regeneration vents, etc). In the revised emission estimates, emissions from alkylation and crude units were estimated from a number of different data points (not just one, as the commenters have stated). Additionally, the one data point the commenters have referred to has been changed to reflect the change in control status. The revised baseline miscellaneous process vents HAP and VOC emissions are 10,000 Mg/yr (11,000 tpy) and 109,000 Mg/yr (119,900 tpy), respectively.

The EPA agrees that the data on HAP concentrations is limited. However, no new data was supplied by the commenters. The EPA's revised emission estimates are based on technically sound methods and the best available information.

C. Equipment Leaks Compliance Requirements

The proposed rule for equipment leaks at existing sources was an above-the-floor option modeled after the HON negotiated rule for equipment leaks. The floor level of control for equipment leaks from existing sources was determined to be control equal to the petroleum refinery NSPS. The modified negotiated rule was chosen as an above-the-floor option because it was estimated to be cost effective. The option chosen in the proposed rule differed from the HON in that: (1)

Existing sources were not required to monitor connectors, and (2) the leak definitions were higher to reflect the different volatility of materials found in refinery process lines as opposed to SOCM process lines. The proposed rule required one-third of the refinery to be in compliance 6 months after promulgation of the rule, two-thirds of the refinery to be in compliance 1 year after promulgation of the rule, and the entire refinery to be in compliance 18 months after promulgation of the rule.

Several commenters contended that the emissions and cost information used to determine the cost effectiveness of going from the floor level of control to the modified negotiated rule were inaccurate and did not consider recent changes to the equipment leak correlation equations for petroleum refineries. The commenters concluded that using the most recent information for refineries would show that it is not cost effective to go beyond the floor level of control.

The cost information used in the analysis was the best data available, and is based on surveys of vendors and established costs presented in previous projects. No new cost information was submitted by the industry. The equipment leak emission factors that are being used to estimate the emissions and emission reductions of the rule were developed in 1980. These are the only complete and accurate emission factors available for this purpose. To accurately estimate emissions from equipment leaks, two sets of information are needed. These include the amount of emissions generated per piece of equipment leaking at a given concentration and the percent of equipment that are actually leaking at these concentrations. The 1980 study that was used to estimate the impacts of the refinery MACT rule used a consistent sampling methodology to address both of these factors based on sampling at uncontrolled refineries. The 1993 API study developed new information only on emissions per piece of leaking equipment using a different methodology. As stated in API's report, this information was developed from refineries in California for use with other information to estimate facility-specific equipment leak emissions. Thus, this study was not designed to provide information on industry average percent leaking equipment. Therefore, it was not possible to redefine average emission factors. To actually use this information, however, the EPA would need corresponding new information on the percent of equipment leaking. The EPA does not believe that it would be appropriate to combine 1993

information with the 1980 data to develop new emission factors because sampling methodologies were different and because the 1993 study collected information from information from well-controlled facilities while the 1980 study collected information from uncontrolled facilities. However, the EPA agrees that new correlation equations developed for the refining industry indicate that the refinery factors may overestimate emissions by as much as a factor of two, which may make the modified negotiated rule option less cost effective. This cannot be accurately determined because the appropriate information to update average emission factors is not available. The EPA recognizes that enough uncertainty exists in the emission and cost estimates to question the results of the cost-effectiveness analysis.

In recognition of this uncertainty and to provide compliance flexibility, the EPA has changed the final rule to provide each existing refinery with a choice of complying with either: (1) The equipment leaks NSPS requirements (40 CFR part 60, subpart VV) or (2) a modified version of the negotiated rule (40 CFR part 63, subpart H). The NSPS represents the MACT floor for existing sources. The modified negotiated regulation is the same as what was contained in the proposed petroleum refinery NESHAP except that the compliance dates have been extended for reasons described below. Although not required in the final rule, the EPA promotes use of the modified negotiated rule option because it is believed to provide considerable product, emissions, and cost savings to a refinery.

Under either option, existing refineries will be required to implement an LDAR program with the same leak definitions (10,000 ppm) and the same leak frequencies as contained in the NSPS by 3 years after promulgation. A refinery may opt to remain at this level of control and do the monitoring, recordkeeping, and reporting specified in the NSPS. This option allows refineries that are familiar with the NSPS to continue to implement that standard without needing to change their procedures.

Alternatively, a refinery may choose to comply with Phase I of the negotiated rule (10,000 ppm leak definition) 3 years after promulgation, comply with Phase II 4 years after promulgation, and comply with Phase III 5½ years after promulgation. Each phase has lower leak definitions for pumps and valves. In Phase III, monitoring frequencies for valves are dependent on performance (percent leakers), providing an incentive

(less frequent monitoring and reduced monitoring costs) for good performance. Refineries choosing to comply with the modified negotiated rule are subject to monitoring, recordkeeping, and reporting requirements of subpart H. The EPA has included this compliance alternative to add flexibility and opportunities for adjustment for differences among facilities.

The compliance dates for equipment leaks were revised to address commenter concerns that contended that small refineries and refineries in ozone attainment areas would be at a disadvantage if they were required to comply with the proposed equipment leak regulations because they would not have the experience to implement an equipment leaks control program within 6 to 18 months.

The EPA agrees that small refineries may not have the experience to implement an LDAR program for equipment leaks in a short timeframe without significant expense. The EPA also contends that other refineries that do not currently have LDAR programs may also have trouble implementing the rule in 6 to 18 months. In response to these comments, the EPA has changed the final rule to require that existing refineries, regardless of size, comply with an LDAR program with the same leak definitions (10,000 ppm) and monitoring frequencies as the petroleum refinery NSPS within 3 years of promulgation of the rule. At the end of the third year, the entire refinery must be in compliance with the petroleum refinery NSPS level of control; there will not be interim deadlines during the 3-year period by which portions of the refinery are required to comply during this time. A refinery owner or operator who chooses to comply with the modified negotiated rule must then implement Phase II within 4 years and Phase III within 5½ years of promulgation. The total annual cost estimates for the rule have been revised in accordance with the changes made to the equipment leak requirements.

D. Storage Vessels

The proposed rule required existing storage vessels containing liquids with vapor pressures greater than or equal to 8 kPa (1.2 psia) to comply with storage vessel requirements within 3 years. For tanks that were already controlled with internal or external floating roofs, the proposed rule allowed operators to defer upgrading of seals until the next scheduled maintenance with the following exceptions: (1) Fixed roof tanks, (2) EFR tanks with only a vapor-mounted primary seal, and (3) all tanks

storing a liquid with a true vapor pressure greater than 34 kPa (5.0 psia).

Commenters to the proposed rule maintained that before additional emission controls (e.g., secondary seals) can be installed, tanks must be removed from service, degassed, and cleaned. Storage tanks are currently emptied and cleaned roughly every 10 years for inspection and maintenance. The commenters contended that removing storage tanks that already have floating roofs from service before scheduled maintenance would have adverse environmental impacts that could not be overcome by the emissions reductions from upgrading the seals on the tank. The commenters further stated that tank owners or operators would incur substantial costs as a result of degassing and cleaning a tank before scheduled maintenance. The commenters contended that a 3-year compliance schedule could not be met because there would not be enough trained and capable fabricators and contractors to support the tank modification work. Commenters stated that the reason was that the refinery rule compliance period overlaps with the implementation of other EPA rules and that a 10-year compliance schedule would be consistent with other EPA rulemakings such as the HON and the benzene storage NESHAP.

The EPA agrees with the commenters that the HON and the benzene storage NESHAP allow floating roof tanks to achieve compliance in 10 years or at the time of the next scheduled degassing. Most existing floating roof storage vessels at refineries also fall under the 10-year compliance schedule. Therefore, these storage vessels will be inspected within 5 to 10 years after promulgation of the rule. This is consistent with industry practice.

In response to these comments, the EPA analyzed the emissions resulting from degassing and cleaning storage vessels using empirical mass-transfer models. The analysis indicated that degassing and cleaning of floating roof vessels generally results in substantial volatilization of HAP's to the air. These emissions could not be balanced in less than 5 years by the emission reductions achieved by controlling the tank to the requirements in the rule. Additionally, the degassing and cleaning information submitted by the refining industry indicated substantial costs for each degassing and cleaning activity if required within 3 years after promulgation of the rule. Based on information provided by industry and the EPA's empirical analysis, the EPA determined that the proposed storage vessel provisions would, in many cases,

result in increased overall emissions because of the extra degassing emissions.

The final rule allows owners or operators of storage vessels subject to the rule to defer installation of better seals on floating roof tanks storing any liquid until the next scheduled maintenance or within 10 years, whichever comes first. This change addresses the commenters' concerns about emissions and costs as well as their concern about the availability of trained fabricators and contractors to modify the tanks within a 3-year period. The final rule maintains the requirement to retrofit IFR tanks at existing sources with secondary seals that meet 40 CFR part 60 subpart Kb requirements because it is the MACT floor for IFR vessels.

Based on the EPA's analysis, the emissions from degassing and cleaning fixed roof tanks can be balanced within 1 year (justifying a 3-year compliance date) by the emission reductions achieved by controlling the tank to the requirements in the rule. Therefore, the final rule maintains the proposed compliance times (within 3 years) for fixed roof tanks. The EPA believes that in certain situations, such as when replacement of a tank is required, it would be reasonable for States to grant an additional year to comply as authorized under section 112(i)(3)(B) of the Act. The additional year would provide time to design and construct the tanks without disrupting refinery operations which could cause additional emissions. The EPA will work with the industry and States to find ways to use the emissions averaging program to deal with cases where tanks have to be replaced or where it is extremely difficult or costly to install the required controls.

Several commenters contended that the Group 1 definition of 8 kPa (1.2 psia) in the proposed NESHAP was based on data requests in section 114 and ICR questionnaires that were misinterpreted by respondents. The commenters stated that the questionnaires did not specify whether respondents were to provide maximum true vapor pressures or average annual true vapor pressures. The commenters elaborated that because other data were provided to estimate emissions on an annual basis, it was reasonable to assume that respondents provided average annual true vapor pressures instead of maximum true vapor pressures. The commenters concluded that vapor pressures based on the maximum monthly temperatures may be 0.3 psia higher than the average annual true vapor pressure. The commenters

recommended that the EPA either change the applicability cutoff to 10 kPa (1.5 psia) maximum true vapor pressure to account for this difference or specify that the 8 kPa (1.2 psia) cutoff is the average annual true vapor pressure instead of the maximum true vapor pressure.

The EPA agrees with the commenters that because the questionnaires did not specify the type of vapor pressure, the respondents may have provided annual average true vapor pressures instead of maximum true vapor pressures. In order to reflect the uncertainty of the type of vapor pressure provided in the questionnaires, the EPA has decided to change the storage vessel applicability cutoff in the final rule from a maximum true vapor pressure of 8 kPa (1.2 psia) to 10 kPa (1.5 psia). An analysis of the storage vessel data base indicated that a change from 8.3 kPa (1.2 psia) to 10 kPa (1.5 psia) will not affect the impacts analysis.

Several commenters requested that a minimum HAP content be considered as well as a vapor pressure cut-off for storage vessels because some liquids may have very low HAP concentrations and high vapor pressures due to the volatility of non-HAP compounds in the material. The EPA agrees that several products, such as asphalt, have minimal HAP's that may have vapor pressures greater than 10 kPa (1.5 psia) if stored at elevated temperatures. To determine HAP weight percent applicability criteria, the EPA reviewed the MACT floor analysis for storage vessels to determine the HAP weight percents in controlled storage vessels at the best-controlled sources. The MACT floor for new sources is based on the best-controlled source, while the floor for existing sources is the average of the best-controlled 12 percent of sources (or 16 refineries). The HAP weight percent applicability criterion was determined using the same population of storage tanks used to determine the vapor pressure applicability cut-off (i.e., the best-controlled 16 refineries). The minimum HAP concentrations for materials stored in the tanks meeting subpart Kb at the 16 best-controlled sources ranged from 2 weight percent to 22 weight percent. The average HAP weight percent in the liquids stored in these tanks is 4 percent. The best-controlled tanks contain liquids with a HAP weight percent in the liquid of 2 percent. Therefore, the HAP weight percent criterion for existing sources is 4 percent HAP in the liquid; the HAP weight percent for new sources is 2 percent HAP in the liquid.

E. Overlapping Regulations

Several commenters contended that the petroleum refinery NESHAP will lead to overlap with other existing and future regulations such as the 40 CFR part 60 NSPS, 40 CFR parts 61 and 63 NESHAP, and State and local regulations. Commenters stated that the overlap between regulations will lead to confusion, uncertainty, and frustration for sources and regulators.

The EPA has clarified the applicability of subpart CC as it relates to other NSPS and parts 61 and 63 NESHAP that apply to the same source in § 63.640 of the final rule.

The final rule clarifies the applicability of 40 CFR part 63, subpart CC storage vessel provisions to storage vessels at existing and new petroleum refinery sources subject to 40 CFR part 60, subparts K, Ka, or Kb. The specific provisions are structured such that each vessel is subject to only the more stringent rule. For example, a Group 1 storage vessel at an existing refinery that is also subject to subpart K or Ka is required only to comply with the petroleum refinery NESHAP storage vessel provisions.

The final rule clarifies the applicability of 40 CFR part 63, subpart CC wastewater provisions by stating that a Group 1 wastewater stream managed in a piece of equipment that is also subject to the provisions of 40 CFR part 60, subpart QQQ is required only to comply with 40 CFR part 63, subpart CC. The final rule also clarifies that a Group 2 wastewater stream managed in equipment that is also subject to the provisions of 40 CFR part 60, subpart QQQ is required only to comply with subpart QQQ. Clarification of the applicable provisions for a wastewater stream that is conveyed, stored, or treated in a wastewater stream management unit that also receives streams subject to the provisions of 40 CFR part 63, subpart F has been included in the final rule.

There should not be any process vent applicability overlap between subpart CC and any other Federal rule. Process vents regulated under the HON are not subject to the petroleum refinery NESHAP.

The EPA clarifies the applicability of subpart CC equipment leak provisions in the final rule by stating that petroleum refinery sources subject to subpart CC and 40 CFR parts 60 or 61 equipment leaks regulations are required to comply only with the petroleum refinery NESHAP (40 CFR part 63, subpart CC) equipment leak provisions.

The EPA has also included a Standard Industrial Classification (SIC) code definition for petroleum refining (2911) to the petroleum refinery process units definition in the final rule in order to clarify which provisions of the rule apply to storage vessels and equipment leaks. The EPA believes that the inclusion of the SIC code reference in the definition of refinery process unit will alleviate confusion about applicability of this rule (reducing potential confusion regarding process unit regulatory overlap) and other source categories scheduled for the development of NESHAP under the Act. The EPA has also added a list of pollutants covered under the rule to assist facilities in the determination of whether emission points are covered under the rule.

Another issue raised by several commenters was the potential for overlap between the petroleum refinery MACT and other MACT standards such as the HON. These commenters requested that the EPA clarify the distinction between process units subject to the HON or other MACT standards and process units subject to the petroleum refinery MACT standard. These commenters thought that the description of refinery process units was too general and could include chemical processes subject to the HON or other MACT standards.

The final rule provides that 40 CFR part 63, subpart CC does not apply to units that are also subject to the provisions of the HON. The applicability of subpart CC versus the HON or other MACT standard to an emission point is determined by the primary product produced in the unit. The primary product is the product that is produced in the greatest mass or volume that the unit produces. For example, if a refinery operates a unit that produces upgraded feedstock for the alkylation unit and this unit also produces a small quantity (less than 20 percent) of the chemical methyl tert butyl ether (MTBE), that unit is considered to be subject to the petroleum refinery MACT standard and not to the HON. In contrast, if a facility operated a process unit that produced MTBE as the primary product and also produced small quantities of a mixed hydrocarbon stream, the unit would be subject to the HON because the unit produces MTBE as the primary product and the HON applies to chemical manufacturing units that produce MTBE. The distinction between the units is the difference in the primary product produced in the different units. In the first case, the unit is integral to the petroleum refinery's operations and

the MTBE is a by-product of the unit. In the second case, the unit's operation could be replaced by purchased MTBE and the operation is not integral to the petroleum refinery's operations.

The EPA believes that including the concept of primary use in the petroleum refining process unit definition clarifies the applicability of the petroleum refinery MACT standard, and that including the primary product concept in HON and other MACT standards will avoid the same emission point from the same process unit being subject to multiple MACT standards. The EPA also believes that by directly stating in the rule that process units subject to the HON are not subject to this rule, the commenter's concerns over applicability issues have been addressed.

F. Source Category Definition

In the July 1994 notice of proposed rulemaking, the proposed rule preamble provided notice of and sought comment on the issues of a broad affected source definition and source category; source-wide averaging; and the relationship between the gasoline distribution affected source definition and source category and refineries. In the preamble of the proposed refinery rule, the EPA noted that it did not intend to include emission points that are subject to the gasoline distribution standard in the refinery source category, that all emission points within the refinery source category would be treated as one stationary source for purposes of the refinery standard, and that the EPA intended to permit averaging among all emission points within the source category except for equipment leaks.

Comments on both the gasoline distribution rule and the refinery proposal indicated that the Agency needed to clarify which rule applied to which emissions points and whether averaging would apply to collocated emission points. Both proposed rules addressed similar emission points; for example, both proposed rules addressed storage tanks and equipment leaks where refineries were collocated with gasoline distribution operations. In the preamble accompanying the final gasoline distribution rule, the EPA indicated the intent to rely on SIC codes to distinguish between emission points at refineries covered by the gasoline distribution standard and those covered by the refinery standard. The Agency noted that the SIC code for particular equipment would indicate the department with managerial oversight responsibility for each emission point. However, the EPA specifically provided that this rule, if appropriate, would

modify the gasoline distribution standard to incorporate SIC code limits.

Today's rule identifies petroleum refinery process units and the gasoline loading rack emission points by SIC code for purposes of identifying the appropriate control requirements. A broad source category and affected source definition increases the opportunity to use flexible compliance options such as emissions averaging. Because the control technology under today's rule for gasoline loading racks is the same as the requirements under the gasoline distribution NESHAP, the required emissions reductions from gasoline loading racks would be at least as great as would have been required had gasoline loading racks been excluded from the petroleum refinery source category and affected source; due to the credit discount factors, overall emissions may be less than otherwise would be required if gasoline loading racks are included in an emissions averaging plan.

G. Emissions Averaging

The preamble to the proposed petroleum refinery rule requested comments on whether marine loading operations at refineries should be included in emissions averaging. The EPA also reopened the comment period for the proposed NESHAP for marine tank vessel loading operations (59 FR 44955) to request comment on whether marine terminals collocated at refineries should be moved to the petroleum refinery source category. In addition, as noted above, issues related to including gasoline distribution emissions in averaging at refineries were also raised in the proposed rule preamble.

During the comment period for the gasoline distribution NESHAP, commenters requested that gasoline bulk terminals contiguous to a refinery be regulated by the petroleum refinery NESHAP. Several commenters on the proposed petroleum refinery NESHAP and proposed marine tank vessel loading operations NESHAP supported averaging of refinery process unit emissions with emissions from marine terminals and gasoline distribution operations that are located at refineries. The commenters cited more cost-effective emission reduction as the advantage of including these emission points in emissions averaging, and specifically commented that the costs per megagram emission reduction of the marine loading controls are high. These commenters also claimed that emission calculation procedures for loading are well established and that adding marine loading to the averaging provisions will not appreciably increase the complexity

of enforcement. Other commenters opposed including marine loading and gasoline distribution emission points in emissions averaging. Some commenters claimed that these are separate source categories and that the Act does not permit averaging across source categories. Other commenters were of the opinion that the EPA has the flexibility to allow trading within a facility that includes units in different source categories. These commenters argued that it is unnecessary to redefine the source category to include marine loading operations and gasoline distribution operations collocated at refineries.

In the final rule, the definitions of the petroleum refinery source category and affected source have been changed to include gasoline loading racks classified under SIC code 2911 (Petroleum Refineries) and marine tank vessel loading operations that are located at refinery plant sites. Because marine loading operations and bulk gasoline transfer operations located at refineries are supplying raw materials to, or transferring products from, petroleum refinery process units, they are logically considered to be part of the same source as the petroleum refinery process units. The EPA considers this definition to be the most appropriate definition and, as noted by several commenters, to present fewer implementation problems.

A gasoline loading rack classified under SIC code 2911 or a marine tank vessel loading operation that is located at a petroleum refinery may be included in an emissions average with other refinery process unit emission points. Because these operations are included as part of a single source within one source category intersource averaging is not an issue.

In keeping with the EPA's stated goal of increasing flexibility in rulemakings, this decision has been made to provide more opportunities to average. This increases the opportunities for refiners to find cost-effective emission reductions from overall facility operations onsite. Costs and cost effectiveness of controlling a particular kind of emission point, such as marine loading, will vary depending on many site-specific factors. Emissions averaging allows the owner and operator to find the optimal control strategy for their particular situation.

The EPA is presently reviewing the emission averaging policy and considering whether any more flexibility can be provided while maintaining environmental protection. The issue of intersource averaging will be considered along with other aspects of the emissions averaging policy such

as limitations on the number of points allowed in an average. The EPA believes that any decision to provide additional flexibility must be based on careful consideration of enforcement issues as well as equity in environmental protection. Given the complexity of these issues, the EPA does not believe that the Refinery MACT standard is the appropriate place to address these issues. The EPA plans to examine the issue independently of any specific rulemaking. In this, the EPA plans to work closely with both the refining and chemical industries and other interested parties to determine if there are opportunities for increasing flexibility and reducing the burden associated with demonstrating compliance with the MACT rules while remaining within the law.

The EPA would like to clarify that the emissions averaging program was designed to result in equal or greater environmental protection while providing sources flexibility to reduce emissions in the most cost-effective manner. Specifically, allowing marine loading operations, and gasoline loading racks classified under SIC code 2911, located at a refinery to be included in emissions averages will result in equivalent or greater overall HAP emission reduction at each refinery. The averaging provisions are structured such that "debits" generated by not controlling an emission point that otherwise would require control must be balanced by achieving extra control at other refinery emission points covered by the NESHAP. The averaging provisions also require that a source demonstrate that compliance through averaging will not result in greater risk or hazard than compliance without averaging.

Some commenters were concerned that including marine loading in averages could result in uncontrolled peak emissions. With regard to the commenters' concerns about peak emissions, the quarterly cap on the ratio of debits to credits is intended to limit the possibility of exposure peaks. Furthermore, because loading occurs fairly frequently, and emissions from an individual vessel filling or loading event are relatively small, such emissions are not expected to cause significant exposure peaks. Moreover, no evidence has been presented that emissions averaging would permit a very different mix of emissions to occur than would point-by-point compliance. That is, peaks of exposures from batch streams, storage, and loading operations should be equally likely under point-by-point compliance as under emissions averaging, so emissions averaging does

not represent a less effective control strategy. Furthermore, in order to receive approval for an emissions average, the owner or operator is required to demonstrate that the emissions average does not increase the risk or hazard relative to compliance without averaging.

H. Monitoring, Recordkeeping and Reporting

Several commenters alleged that the recordkeeping and reporting requirements of the proposed rule were extremely burdensome. The commenters requested that the EPA reduce the monitoring, recordkeeping, and reporting burden associated with the proposed rule. Commenters also requested that provisions be added to the final rule to avoid duplication of reporting for equipment subject to multiple NESHAP and NSPS. Other commenters requested that flexibility to allow alternative monitoring, recordkeeping, and reporting be incorporated into the final rule.

The EPA recognizes that unnecessary monitoring, recordkeeping, and reporting requirements would burden both the source and enforcement agencies. Prior to proposal, the EPA attempted to reduce the amount of monitoring, recordkeeping, and reporting to only that which is necessary to demonstrate compliance. For example, at proposal almost all reports were consolidated into the Notification of Compliance Status and the Periodic Reports. This was done to simplify and reduce the frequency of reporting. Sources also have the option of retaining records either in paper copy or in computer-readable formats, whichever is less burdensome. If multiple performance tests are conducted for the same kind of emission point using the same test method, only one complete test report is submitted along with summaries of the results of other tests. This reduces the lengthy test reports to be copied, reviewed, and submitted.

Site-specific test plans describing quality assurance in § 63.7(c) of 40 CFR part 63, subpart A are not required because the test methods cited in subpart CC already contain applicable quality assurance protocols. The quality assurance provisions in the individual test methods remain applicable and are not superseded by the nonapplicability of § 63.7(c) of subpart A. For continuously monitored parameters, periodic reporting is limited to excursions outside the established ranges and the in-range values are not required to be reported.

In response to the commenters, the EPA reevaluated whether monitoring, recordkeeping, and reporting requirements could be further reduced while maintaining the enforceability of the rule. The EPA has made the following changes in the promulgated rule to further reduce the monitoring, recordkeeping, and reporting burden:

(1) The requirement to submit an Initial Notification has been eliminated;

(2) Periodic reports are required to be submitted semiannually for all facilities that do not use emissions averaging (the proposal required quarterly reports if monitored parameters were out of range more than a specified percentage of the time);

(3) A reduction in the frequency for parameter monitoring and recording. The proposal required values of monitored parameters to be recorded every 15 minutes and all 15-minute records had to be retained for those days when excess emissions occurred. The final rule allows hourly monitoring and recording;

(4) Recordkeeping and reporting provisions that eliminate duplicate reporting for equipment subject to multiple NESHAP and NSPS were added to the applicability section (§ 63.640) of the final rule. The additions specify which rule applies and overrides the less stringent NSPS or NESHAP. For State and local regulation applicability determination, the final rule has been amended to state that the local regulatory authority (e.g., State or permitting authority) can decide how monitoring, recordkeeping, and reporting requirements can be consolidated, and can approve alternative monitoring, recordkeeping, and reporting requirements.

These reductions reduce the proposal monitoring, recordkeeping, and reporting burden by 25 percent. The EPA plans to continue to work with the industry as well as with other interested parties to identify further opportunities for reduction of the monitoring, recordkeeping, and reporting burden of the rule. The EPA will consider ways to eliminate overlapping requirements and to address any inconsistencies among the rules. The EPA will investigate the possibility of consolidating and simplifying the various rules while maintaining the same level of environmental protection. Assuming that the pilot project with the chemical industry is successful, the EPA expects to be able to complete the review of the Refinery rule monitoring, recordkeeping, and reporting requirements before the compliance date.

I. Subcategorization

Several commenters to the proposed petroleum refinery NESHAP requested that the EPA subcategorize refineries by size and/or location in an ozone attainment area. Other commenters stated that subcategorizing small refineries because of an arbitrary size exemption can result in an unfair competitive advantage. These commenters further elaborated that large refineries should not be penalized for an economy of scale achieved through its own effective competitiveness.

In response to these comments, the refinery data bases were subcategorized based on crude charge capacity. The refineries were also subcategorized by ozone attainment status and by refineries containing processes that are used to produce gasoline (such as catalytic cracking, coking, and catalytic reforming). Within each subcategory, the process vents, storage vessels, and equipment leaks data bases were sorted from most stringent control to least stringent. The MACT floor (average of the top 12 percent of sources) for each subcategory was identified.

The MACT floors for small refineries are not significantly different from the industry as a whole. The floor for process vents is the same for small refiners as for the entire industry. The floor for storage tanks would increase the materials vapor pressure cutoff from 10 kPa (1.5 psia) to 11 kPa (1.7 psia), which would result in a minimal cost savings since there are few petroleum liquids in this volatility range. The floor for equipment leaks would reduce the monitoring frequency; however, small refiners would still incur the cost of setting up and implementing an LDAR program.

Based on the EPA's analysis and the comments received during the public comment period, a separate subcategory for small refineries has not been included in the final rule. This decision was based on there being no clear relationship between refinery size or design and emission potential.

J. Economic Analysis

Comments were received on both the methodology of the economic analysis and the potential impacts of the analysis results. The EPA's economic model focused on estimating changes in product price and quantity of production for several petroleum products. Once the effects on price and quantity were evaluated, other impacts were estimated. The model the EPA used is predicated on neoclassical microeconomic theory.

The model assumed that those refineries with the highest per-unit

control are marginal (i.e., near the margin between shutdown and continuing operation) in the post-control markets, and that they also have the highest underlying per-unit cost of production. This assumption may result in an overstatement of the adverse impacts, such as closure, since the assumed relationship between per-unit control cost and per-unit production cost may not hold for all refineries. For more information, consult the "Economic Impact Analysis for the Petroleum Refinery NESHAP" in the docket.

Most of the comments about the economic analyses methodology were focused on possible impacts on other parts of the petroleum industry other than refineries. The economic analysis for this rule, like most of the EPA's economic analyses, focuses on the impacts on the industry being regulated and does not calculate impacts to other industries indirectly affected unless those impacts are significant. In this case, the impacts to indirectly affected industries were not calculated since the impacts estimated for the petroleum refinery industry were not significant, impacts to indirectly affected industries would likely be insignificant also.

K. Benefits Analysis

Comments noted that naphthalene is classified as a possible carcinogen, not a known carcinogen, and therefore should not be included in the risk analysis. Commenters also argued that the estimates for monetized VOC benefits were too high, since the VOC reductions claimed in the regulation would occur as a result of State Implementation Plans (SIP's) required by the Act. Other commenters wrote that the level of benefits from HAP emissions reduction was not of sufficient justification for pursuing the regulation.

When the rule was proposed, naphthalene was classified as a possible human carcinogen. Naphthalene is no longer classified as a possible human carcinogen and is not included in the risk analysis for the final rule.

To estimate the benefits of reducing VOC, the EPA used a 1989 study conducted by the Office of Technology Assessment (OTA). The study examined a variety of acute health impacts related to ozone exposure as well as the benefits of reduced ozone concentrations for selected agricultural crops. A number of factors were not considered in the analysis, including chronic health effects and health impacts for attainment areas.

As to the comment about some of the benefits being attributable to VOC

emission reductions brought about by implementing SIP's, the EPA attempted to include in the baseline all possible impacts from SIP implementation. Control of VOC in this rule will be incorporated into future SIP's by affecting their baselines, thus making the emission reductions needed to meet them less, and leading to lower costs for petroleum refineries to meet those SIP's. Therefore, control of VOC emissions in this rule will lead to lower costs to future SIP implementation. Also, the emission streams from petroleum refineries are primarily VOC, with a small fraction of VOC being HAP. Control of any petroleum refinery emission stream involves control of VOC as well as HAP. Thus, any benefits estimated to occur from a rule that controls VOC, though their control is of secondary importance, should be included as benefits of the rule.

L. Emissions Data

Commenters raised concerns about the amount and quality of the data on HAP emissions, and the uncertainties in the emission estimates. Throughout the rulemaking, the EPA has been aware of these concerns. During the course of this rulemaking, the EPA requested information from the petroleum refining industry on emissions and emission control technologies. The industry provided sufficient information on the emission control technologies to determine the best controlled facilities, as required by section 112 of the Act. However, the information received on existing emission control levels was limited because it was not available. Thus, there is uncertainty in the refinery baseline emission estimates, and emission reductions and other benefits achieved from the emission controls required to comply with the rule. The EPA and the petroleum refinery industry are unable to reduce this uncertainty at this time. The Agency has characterized the costs and emission reductions of the requirements of this rule as accurately as possible. While there is a great deal of qualitative information on the benefits of this rule, the uncertainty in the emission estimates and the monetary value that can be placed on the emission reductions limits the Agency's ability to directly quantify all the benefits of the refinery MACT rule. The EPA does know, however, that the controls required in this rulemaking are in widespread use in the refining industry and that they provide substantial emission reductions.

Under section 112(f) of the Act, the EPA must determine whether further control of refinery emissions is

necessary to protect the health of the general public. This determination will require more accurate emission estimates than currently exist. The EPA has made a commitment to work cooperatively with industry to identify the data needed to improve the emission estimates and any other information that is required to determine the health risks that may remain after implementation of the refinery MACT rule.

VI. Changes to NSPS

The changes to 40 CFR part 60, subparts VV and QQQ are promulgated with minor edits for clarity and consistency.

VII. Administrative Requirements

A. Docket

The docket is an organized and complete file of all the information considered by the EPA in the development of this rulemaking. The docket is a dynamic file, since material is added throughout the rulemaking development. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the proposed and promulgated standards and their preambles, and the BID containing the EPA's responses to significant comments, the contents of the docket will serve as the record in case of judicial review (section 307(d)(7)(A)).

B. Paperwork Reduction Act

The information collection requirements in this rule have been approved by the Office of Management and Budget (OMB) under the *Paperwork Reduction Act*, 44 U.S.C. 3501 *et seq.* and have been assigned control number 2060-0340. This collection of information has an estimated annual reporting burden averaging 320 hours per respondent and an estimated annual recordkeeping burden averaging 2,880 hours per respondent. These estimates include time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

This reflects a reduction of the proposal monitoring, recordkeeping, and reporting burden of 25 percent. The EPA plans to continue to work with the industry as well as with other interested parties to identify further opportunities for reduction of the monitoring, recordkeeping, and reporting burden of the rule. The EPA will consider ways to eliminate overlapping requirements and

to address any inconsistencies among the rules. The EPA will investigate the possibility of consolidating and simplifying the various rules while maintaining the same level of environmental protection. Assuming that the pilot project with the chemical industry is successful, the EPA expects to be able to complete the review of the Refinery rule monitoring, recordkeeping, and reporting requirements before the compliance date.

Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Chief, Information Policy Branch; EPA; 401 M St. SW., (Mail Code 2136); Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, marked "Attention: Desk Officer for EPA."

C. Executive Order 12866

Under Executive Order 12866 (58 FR 5173 (October 4, 1993)), the Agency must determine whether the regulatory action is "significant" and therefore subject to OMB review and the requirements of the Executive Order. The 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.

This action is a "significant regulatory action" within the meaning of Executive Order 12866. 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.

D. Regulatory Flexibility Act

Pursuant to the Regulatory Flexibility Act of 1980, 5 U.S.C. 601 *et seq.*, when an agency publishes a notice of rulemaking, for a rule that will have a significant effect on a substantial number of small entities, the agency

must prepare and make available for public comment a regulatory flexibility analysis (RFA) that considers the effect of the rule on small entities (i.e., small businesses, small organizations, and small governmental jurisdictions). In assessing the regulatory approach for dealing with small entities in today's final rule, the EPA guidelines indicate that an economic impact should be considered significant if it meets one of the following criteria:

(1) Compliance increases annual production costs by more than 5 percent, assuming costs are passed on to consumers;

(2) Compliance costs as a percentage of sales for small entities are at least 10 percent more than compliance costs as a percentage of sales for large entities;

(3) Capital costs of compliance represent a "significant" portion of capital available to small entities, considering internal cash flow plus external financial capabilities, or

(4) Regulatory requirements are likely to result in closure of small entities.

Data were not readily available to determine if criteria (1) and (3) were met or not, so the analysis focused on the other two. Results from the economic impact analysis indicate that between zero and seven refineries, all of which are classified as small, are at risk of closure (refer to the "Economic Impact Analysis of the Regulatory Alternatives for the Petroleum Refineries NESHAP" in the *Background Information Documents* section). While this percentage of net closures is less than 20 percent of the total number of small refineries (88), it was deemed high enough for carrying out an RFA on that basis alone. Criterion (2), however, was satisfied. The compliance costs-to-sales ratio for the small refineries was more than 10 percent greater than the same ratio calculated for all other refineries.

There are four reasons why small entities are disproportionately affected by the regulation. The first is the fact that they tend to own smaller facilities, and therefore have smaller economies of scale. Because of the smaller economies of scale, per-unit costs of production and compliance are higher for the small refineries compared to others. Related to this is the fact that small refineries have less ability to produce differentiated products. This ability, called complexity, increases with increasing refinery capacity. A large refinery can respond to a relative increase in production costs for one product by increasing production of a product now relatively cheaper to produce, an ability most small refineries rarely enjoy.

A second reason is they have fewer capital resources. Small refineries have

less ability to finance the capital expenditures needed to purchase the equipment required to comply with the regulation. A third reason is the difference in internal structure. None of the small refineries are vertically or horizontally integrated, and in all but a few cases are not the subsidiary of a large parent company. The small refineries are typically independent owners and operators of their facilities, and most are owners of a single refinery. They do not possess the ability to shift production between different refineries and have less market power than their large competitors.

A fourth reason why smaller refineries experience greater economic impacts than other refineries is due to the small industry-level price increases (less than 1 percent in all cases). It is unlikely that small refineries will be able to recover annualized control costs by increasing product prices, since the large refineries will not be significantly impacted. As seen in the examination of criterion (2), the large refineries will not be significantly affected from compliance with the regulation.

In calculating the number of closures, the assumption was made that those refineries with the highest per-unit control costs were marginal after compliance with the regulation. While this assumption is often useful in closure analysis, it is not always true. The assumption is consistent with perfect competition theory that presumes all firms are price-takers. If a refiner does have some monopoly power in a particular market, then it is possible a refiner experiencing some economic distress could continue to operate for some period while complying with the regulation. It is a conservative assumption that likely biases the results to overstate the number of refinery closures and other impacts of the proposed regulation.

To mitigate the economic impacts on small refineries, the Agency has considered whether to subcategorize the MACT floors for the various emission sources or to allow refineries more time to comply with the regulation. The Agency has decided not to include a separate subcategory for small refineries, but has decided to allow refineries more time to comply with various requirements for control of equipment leak and storage vessel emissions (refer to section V, "Significant Comments and Changes to the Proposed Standards").

The definition of small refinery used in the analysis is 50,000 bbl per stream day production capacity. This differs from the definition of 75,000 barrels per stream current as of May 1, 1992, a

definition announced by the Small Business Administration that day in the Federal Register (57 FR 18808).

E. Unfunded Mandates

Under section 202 of the Unfunded Mandates Reform Act of 1995 ("Unfunded Mandates Act"), signed into law on March 22, 1995, the EPA must prepare a budgetary impact statement to accompany any proposed or final rule that includes a Federal mandate that may result in estimated costs to State, local, or tribal governments in the aggregate, or to the private sector, of \$100 million or more. Under section 205, the EPA must select the most cost effective and least burdensome alternative that achieves the objectives of the rule and is consistent with statutory requirements. Section 203 requires the EPA to establish a plan for informing and advising any small governments that may be significantly or uniquely impacted by the rule.

The EPA has determined that the action promulgated today does not include 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. Therefore, the requirements of the Unfunded Mandates Act do not apply to this action.

List of Subjects

40 CFR Part 60

Environmental protection, Administrative practice and procedure, Air pollution control, Gasoline, Intergovernmental relations, Natural gas, Volatile organic compounds.

40 CFR Part 63

Air pollution control, Hazardous air pollutants, Petroleum refineries, Reporting and recordkeeping requirements.

Dated: July 28, 1995.

Carol M. Browner,
Administrator.

For the reasons set out in the preamble, parts 9, 60, and 63 of title 40, chapter I, of the Code of Federal Regulations are amended as follows:

PART 9—OMB APPROVALS UNDER THE PAPERWORK REDUCTION ACT

1. The authority citation for part 9 continues to read as follows:

Authority: 7 U.S.C. 135 et seq., 136–136y, 15 U.S.C. 2001, 2003, 2005, 2006, 2601–2671; 21 U.S.C. 331, 346a, 348; 31 U.S.C. 9701; 33 U.S.C. 1251 et seq., 1311, 1313d, 1314, 1321, 1326, 1330, 1344, 1345(d), and (e), 1381; E.O. 11735, 38 FR 21243, 3 CFR, 1971–1975.

Comp. p. 973; 42 U.S.C. 241, 242b, 243, 246, 300f, 300g, 300g-i, 300j-2, 300j-3, 300j-4, 300j-9, 1857 et seq., 6901-6992k, 7401-7671q, 7542, 9601-9657, 11023, 11048.

2. Section 9.1 is amended by adding the new entries to the table under the indicated heading in numerical order to read as follows:

§ 9.1 OMB approvals under the paperwork reduction act.

40 CFR citation	OMB control No.
National Emission Standards for Hazardous Air Pollutants for Source Categories	
63.653	2060-0340
63.654	2060-0340

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

1. The authority citation for part 60 continues to read as follows:

Authority: 42 U.S.C. 7401-7601.

Subpart VV—[Amended]

2. Section 60.481 is amended by revising the definition of "closed vent system" to read as follows:

§ 60.481 Definitions.

Closed vent system means a system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device. If gas or vapor from regulated equipment is routed to a process (e.g., to a petroleum refinery fuel gas system), the process shall not be considered a closed vent system and is not subject to the closed vent system standards.

3. Section 60.482-5 is revised to read as follows:

§ 60.482-5 Standards: Sampling connection systems.

(a) Each sampling connection system shall be equipped with a closed-purged, closed-loop, or closed-vent system, except as provided in § 60.482-1(c).

(b) Each closed-purge, closed-loop, or closed-vent system as required in paragraph (a) of this section shall comply with the requirements specified

in paragraphs (b)(1) through (b)(3) of this section:

(1) Return the purged process fluid directly to the process line; or

(2) Collect and recycle the purged process fluid to a process; or

(3) Be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of § 60.482-10.

(c) In situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) of this section.

4. Section 60.482-10 is amended by revising paragraphs (f) and (g) and adding paragraphs (h) through (l) to read as follows:

§ 60.482-10 Standards: Closed vent systems and control devices.

(f) Except as provided in paragraphs (i) through (k) of this section, each closed vent system shall be inspected according to the procedures and schedule specified in paragraphs (f)(1) and (f)(2) of this section.

(1) If the vapor collection system or closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in paragraphs (f)(1)(i) and (f)(1)(ii) of this section:

(i) Conduct an initial inspection according to the procedures in § 60.485(b); and

(ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

(2) If the vapor collection system or closed vent system is constructed of ductwork, the owner or operator shall:

(i) Conduct an initial inspection according to the procedures in § 60.485(b); and

(ii) Conduct annual inspections according to the procedures in § 60.485(b).

(g) Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in paragraph (h) of this section.

(1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(2) Repair shall be completed no later than 15 calendar days after the leak is detected.

(h) Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions

resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.

(i) If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section.

(j) Any parts of the closed vent system that are designated, as described in paragraph (k)(1) of this section, as unsafe to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (j)(1) and (j)(2) of this section:

(1) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraphs (f)(1)(i) or (f)(2) of this section; and

(2) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

(k) Any parts of the closed vent system that are designated, as described in paragraph (l)(2) of this section, as difficult to inspect are exempt from the inspection requirements of paragraphs (f)(1)(i) and (f)(2) of this section if they comply with the requirements specified in paragraphs (k)(1) through (k)(2) of this section:

(1) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

(2) The process unit within which the closed vent system is located becomes an affected facility through §§ 60.14 or 60.15, or the owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect.

(3) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum.

(l) The owner or operator shall record the information specified in paragraphs (l)(1) through (l)(5) of this section.

(1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.

(2) Identification of all parts of the closed vent system that are designated

as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

(3) For each inspection during which a leak is detected, a record of the information specified in § 60.486(c).

(4) For each inspection conducted in accordance with § 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(5) For each visual inspection conducted in accordance with paragraph (f)(1)(ii) of this section during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(m) Closed vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

Subpart QQQ—[Amended]

5. Section 60.691 is amended by revising the definition of "closed vent system" to read as follows:

§ 60.691 Definitions.

Closed vent system means a system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from an emission source to a control device. If gas or vapor from regulated equipment are routed to a process (e.g., to a petroleum refinery fuel gas system), the process shall not be considered a closed vent system and is not subject to the closed vent system standards.

6. Section 60.692-3 is amended by revising paragraph (d) to read as follows:

§ 60.692-3 Standards: Oil-water separators.

(d) Storage vessels, including slop oil tanks and other auxiliary tanks that are subject to the standards in §§ 60.112, 60.112a, and 60.112b and associated requirements, 40 CFR part 60, subparts K, Ka, or Kb are not subject to the requirements of this section.

7. Section 60.693-2 is amended by revising paragraphs (a)(1)(i) introductory text and (a)(1)(i)(A) to read as follows:

§ 60.693-2 Alternative standards for oil-water separators.

- (a) * * *
- (1) * * *

(i) The primary seal shall be a liquid-mounted seal or a mechanical shoe seal.

(A) A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the separator and the floating roof. A mechanical shoe seal means a metal sheet held vertically against the wall of the separator by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

8. Section 60.695 is amended by adding paragraphs (a)(3)(i) and (a)(3)(ii) to read as follows:

§ 60.695 Monitoring of operations.

- (a) * * *
- (3) * * *

(i) For a carbon adsorption system that regenerates the carbon bed directly onsite, a monitoring device that continuously indicates and records the volatile organic compound concentration level or reading of organics in the exhaust gases of the control device outlet gas stream or inlet and outlet gas stream shall be used.

(ii) For a carbon adsorption system that does not regenerate the carbon bed directly onsite in the control device (e.g., a carbon canister), the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system shall be monitored on a regular schedule, and the existing carbon shall be replaced with fresh carbon immediately when carbon breakthrough is indicated. The device shall be monitored on a daily basis or at intervals no greater than 20 percent of the design carbon replacement interval, whichever is greater. As an alternative to conducting this monitoring, an owner or operator may replace the carbon in the carbon adsorption system with fresh carbon at a regular predetermined time interval that is less than the carbon replacement interval that is determined by the maximum design flow rate and organic concentration in the gas stream vented to the carbon adsorption system.

9. Section 60.697 is amended by revising paragraphs (f)(3)(i), (f)(3)(ii); and by adding paragraphs (f)(3)(x) (A) and (B) to read as follows:

§ 60.697 Recordkeeping requirements.

- (f) * * *
- (3) * * *

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions shall be kept for the life of the facility. This documentation is to include a general description of the gas streams that enter the control device, including flow and volatile organic compound content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C (1,500 °F) is used to meet the 95-percent requirement, documentation that those conditions exist is sufficient to meet the requirements of this paragraph.

(ii) For a carbon adsorption system that does not regenerate the carbon bed directly onsite in the control device such as a carbon canister, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

- (x) * * *

(A) Each owner or operator of an affected facility that uses a carbon adsorber which is regenerated directly onsite shall maintain continuous records of the volatile organic compound concentration level or reading of organics of the control device outlet gas stream or inlet and outlet gas stream and records of all 3-hour periods of operation during which the average volatile organic compound concentration level or reading of organics in the exhaust gases, or inlet and outlet gas stream, is more than 20 percent greater than the design exhaust gas concentration level, and shall keep such records for 2 years after the information is recorded.

(B) If a carbon adsorber that is not regenerated directly onsite in the control device is used, then the owner or operator shall maintain records of dates and times when the control device is monitored, when breakthrough is measured, and shall record the date and

time that the existing carbon in the control device is replaced with fresh carbon.

10. Section 60.698 is amended by adding paragraphs (d)(3)(i) and (d)(3)(ii) to read as follows:

§ 60.698 Reporting requirements.

(d) * * *

(3) * * *

(i) Each 3-hour period of operation during which the average volatile organic compound concentration level or reading of organics in the exhaust gases from a carbon adsorber which is regenerated directly onsite is more than 20 percent greater than the design exhaust gas concentration level or reading.

(ii) Each occurrence when the carbon in a carbon adsorber system that is not regenerated directly onsite in the control device is not replaced at the predetermined interval specified in § 60.695(a)(3)(ii).

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

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

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

Subpart R—[Amended]

2. Section 63.420 is amended by adding paragraph (i) to read as follows:

§ 63.420 Applicability.

(i) A bulk gasoline terminal or pipeline breakout station with a Standard Industrial Classification code 2911 located within a contiguous area and under common control with a refinery complying with subpart CC, §§ 63.646, 63.648, 63.649, and 63.650 is not subject to subpart R standards, except as specified in subpart CC, § 63.650.

3. Part 63 is amended by adding subpart CC consisting of §§ 63.640 through 63.679 to read as follows:

Subpart CC—National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries

Sec.

63.640 Applicability and designation of affected source.

63.641 Definitions.

63.642 General standards.

63.643 Miscellaneous process vents provisions.

63.644 Monitoring provisions for miscellaneous process vents.

63.645 Test methods and procedures for miscellaneous process vents.

63.646 Storage vessel provisions.

63.647 Wastewater provisions.

63.648 Equipment leak standards.

63.649 Alternative means of emission limitation: Connectors in gas/vapor service and light liquid service.

63.650 Gasoline loading rack provisions.

63.651 Marine vessel tank loading operations provisions.

63.652 Emissions averaging provisions.

63.653 Monitoring, recordkeeping, and implementation plan for emissions averaging.

63.654 Reporting and recordkeeping requirements.

63.655 through 63.679 [Reserved]

Appendix to Subpart CC—Tables

Subpart CC—National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries

§ 63.640 Applicability and designation of affected source.

(a) This subpart applies to petroleum refining process units and to related emission points that are specified in paragraphs (c)(5) through (c)(7) of this section that are located at a plant site that meet the criteria in paragraphs (a)(1) and (a)(2) of this section;

(1) Are located at a plant site that is a major source as defined in section 112(a) of the Clean Air Act; and

(2) Emit or have equipment containing or contacting one or more of the hazardous air pollutants listed in table 1 of this subpart.

(b) For process units that are designed and operated as flexible operation units, the applicability of this subpart shall be determined for existing sources based on the expected utilization for the first 5 years after startup.

(1) If the predominant use of the flexible operation unit, as described in paragraphs (b)(1)(i) and (b)(1)(ii) of this section, is as a petroleum refining process unit, as defined in § 63.641, then the flexible operation unit shall be subject to the provisions of this subpart.

(i) Except as provided in paragraph (b)(1)(ii) of this section, the predominant use of the flexible operation unit shall be the use representing the greatest annual operating time.

(ii) If the flexible operation unit is used as a petroleum refining process unit and for another purpose equally based on operating time, then the predominant use of the flexible operation unit shall be the use that produces the greatest annual production on a mass basis.

(2) The determination of applicability of this subpart to petroleum refining

process units that are designed and operated as flexible operation units shall be reported as specified in § 63.654(h)(6)(i).

(c) For the purpose of this subpart, the affected source shall comprise all emission points, in combination, listed in paragraphs (c)(1) through (c)(7) of this section that are located at a single refinery plant site.

(1) All miscellaneous process vents from petroleum refining process units meeting the criteria in paragraph (a) of this section;

(2) All storage vessels associated with petroleum refining process units meeting the criteria in paragraph (a) of this section;

(3) All wastewater streams and treatment operations associated with petroleum refining process units meeting the criteria in paragraph (a) of this section;

(4) All equipment leaks from petroleum refining process units meeting the criteria in paragraph (a) of this section;

(5) All gasoline loading racks classified under Standard Industrial Classification code 2911 meeting the criteria in paragraph (a) of this section;

(6) All marine vessel loading operations located at a petroleum refinery meeting the criteria in paragraph (a) of this section and the applicability criteria of subpart Y, § 63.560; and

(7) All storage vessels and equipment leaks associated with a bulk gasoline terminal or pipeline breakout station classified under Standard Industrial Classification code 2911 located within a contiguous area and under common control with a refinery meeting the criteria in paragraph (a) of this section.

(d) The affected source subject to this subpart does not include the emission points listed in paragraphs (d)(1) through (d)(4) of this section.

(1) Stormwater from segregated stormwater sewers;

(2) Spills; and

(3) Equipment that is intended to operate in organic hazardous air pollutant service, as defined in § 63.641 of this subpart, for less than 300 hours during the calendar year.

(4) Catalytic cracking unit and catalytic reformer catalyst regeneration vents, and sulfur plant vents.

(e) The owner or operator shall follow the procedures specified in paragraphs (e)(1) and (e)(2) of this section to determine whether a storage vessel is part of a source to which this subpart applies.

(1) Where a storage vessel is used exclusively by a process unit, the

storage vessel shall be considered part of that process unit.

(i) If the process unit is a petroleum refining process unit subject to this subpart, then the storage vessel is part of the affected source to which this subpart applies.

(ii) If the process unit is not subject to this subpart, then the storage vessel is not part of the affected source to which this subpart applies.

(2) If a storage vessel is not dedicated to a single process unit, then the applicability of this subpart shall be determined according to the provisions in paragraphs (e)(2)(i) through (e)(2)(iii) of this section.

(i) If a storage vessel is shared among process units and one of the process units has the predominant use, as determined by paragraphs (e)(2)(i)(A) and (e)(2)(i)(B) of this section, then the storage vessel is part of that process unit.

(A) If the greatest input on a volume basis into the storage vessel is from a process unit that is located on the same plant site, then that process unit has the predominant use.

(B) If the greatest input on a volume basis into the storage vessel is provided from a process unit that is not located on the same plant site, then the predominant use shall be the process unit that receives the greatest amount of material on a volume basis from the storage vessel at the same plant site.

(ii) If a storage vessel is shared among process units so that there is no single predominant use, and at least one of those process units is a petroleum refining process unit subject to this subpart, the storage vessel shall be considered to be part of the petroleum refining process unit that is subject to this subpart. If more than one petroleum refining process unit is subject to this subpart, the owner or operator may assign the storage vessel to any of the petroleum refining process units subject to this subpart.

(iii) If the predominant use of a storage vessel varies from year to year, then the applicability of this subpart shall be determined based on the utilization of that storage vessel during the year preceding promulgation of this subpart. This determination shall be reported as specified in § 63.654(h)(6)(ii) of this subpart.

(f) The owner or operator shall follow the procedures specified in paragraphs (f)(1) through (f)(5) of this section to determine whether a miscellaneous process vent from a distillation unit is part of a source to which this subpart applies.

(1) If the greatest input to the distillation unit is from a process unit

located on the same plant site, then the distillation unit shall be assigned to that process unit.

(2) If the greatest input to the distillation unit is provided from a process unit that is not located on the same plant site, then the distillation unit shall be assigned to the process unit located at the same plant site that receives the greatest amount of material from the distillation unit.

(3) If a distillation unit is shared among process units so that there is no single predominant use, as described in paragraphs (f)(1) and (f)(2) of this section, and at least one of those process units is a petroleum refining process unit subject to this subpart, the distillation unit shall be assigned to the petroleum refining process unit that is subject to this subpart. If more than one petroleum refining process unit is subject to this subpart, the owner or operator may assign the distillation unit to any of the petroleum refining process units subject to this rule.

(4) If the process unit to which the distillation unit is assigned is a petroleum refining process unit subject to this subpart and the vent stream contains greater than 20 parts per million by volume total organic hazardous air pollutants, then the vent from the distillation unit is considered a miscellaneous process vent (as defined in § 63.641 of this subpart) and is part of the source to which this subpart applies.

(5) If the predominant use of a distillation unit varies from year to year, then the applicability of this subpart shall be determined based on the utilization of that distillation unit during the year preceding promulgation of this subpart. This determination shall be reported as specified in § 63.654(h)(1)(ii).

(g) The provisions of this subpart do not apply to the processes specified in paragraphs (g)(1) through (g)(7) of this section.

(1) Research and development facilities, regardless of whether the facilities are located at the same plant site as a petroleum refining process unit that is subject to the provisions of this subpart;

(2) Equipment that does not contain any of the hazardous air pollutants listed in table 1 of this subpart that is located within a petroleum refining process unit that is subject to this subpart;

(3) Units processing natural gas liquids;

(4) Units that are used specifically for recycling discarded oil;

(5) Shale oil extraction units;

(6) Ethylene processes; and

(7) Process units and emission points subject to subparts F, G, H, and I of this part.

(h) Except as provided in paragraphs (k), (l), or (m) of this section, sources subject to this subpart are required to achieve compliance on or before the dates specified in paragraphs (h)(1) through (h)(4) of this section.

(1) New sources that commence construction or reconstruction after July 14, 1994 shall be in compliance with this subpart upon initial startup or the date of promulgation of this subpart, whichever is later, as provided in § 63.6(b) of subpart A of this part.

(2) Except as provided in paragraphs (h)(3) through (h)(5) of this section, existing sources shall be in compliance with this subpart no later than August 18, 1998, except as provided in § 63.6(c) of subpart A of this part, or unless an extension has been granted by the Administrator as provided in § 63.6(i) of subpart A of this part.

(3) [Reserved].

(4) Existing Group 1 floating roof storage vessels shall be in compliance with § 63.646 at the next degassing and cleaning activity or within 10 years after promulgation of the rule, whichever is first.

(5) An owner or operator may elect to comply with the provisions of § 63.648 (c) through (f) as an alternative to the provisions of § 63.648 (a) and (b). In such cases, the owner or operator shall comply no later than the dates specified in paragraphs (h)(5)(i) through (h)(5)(iii) of this section.

(i) Phase I (see table 2 of this subpart), beginning on August 18, 1998;

(ii) Phase II (see table 2 of this subpart), beginning no later than August 18, 1999; and

(iii) Phase III (see table 2 of this subpart), beginning no later than June 18, 2001.

(i) If an additional petroleum refining process unit is added to a plant site that is a major source as defined in section 112(a) of the Clean Air Act, the addition shall be subject to the requirements for a new source if it meets the criteria specified in paragraphs (i)(1) through (i)(3) of this section:

(1) It is an addition that meets the definition of construction in § 63.2 of subpart A of this part;

(2) Such construction commenced after July 14, 1994; and

(3) The addition has the potential to emit 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.

(j) If any change is made to a petroleum refining process unit subject to this subpart, the change shall be

subject to the requirements for a new source if it meets the criteria specified in paragraphs (j)(1) and (j)(2) of this section:

(1) It is a change that meets the definition of reconstruction in § 63.2 of subpart A of this part; and

(2) Such reconstruction commenced after July 14, 1994.

(k) If an additional petroleum refining process unit is added to a plant site or a change is made to a petroleum refining process unit and the addition or change is determined to be subject to the new source requirements according to paragraphs (i) or (j) of this section it must comply with the requirements specified in paragraphs (k)(1) and (k)(2) of this section:

(1) The reconstructed source, addition, or change shall be in compliance with the new source requirements upon initial startup of the reconstructed source or by the date of promulgation of this subpart, whichever is later; and

(2) The owner or operator of the reconstructed source, addition, or change shall comply with the reporting and recordkeeping requirements that are applicable to new sources. The applicable reports include, but are not limited to:

(i) The application for approval of construction or reconstruction shall be submitted as soon as practical before the construction or reconstruction is planned to commence (but it need not be sooner than 90 days after the date of promulgation of this subpart);

(ii) The Notification of Compliance Status report as required by § 63.654(f) for a new source, addition, or change;

(iii) Periodic Reports and Other Reports as required by § 63.654 (g) and (h);

(iv) Reports and notifications required by § 60.487 of subpart VV of part 60 or § 63.182 of subpart H of this part. The requirements for subpart H are summarized in table 3 of this subpart;

(v) Reports required by 40 CFR 61.357 of subpart FF;

(vi) Reports and notifications required by § 63.428 (b), (c), (g)(1), and (h)(1) through (h)(3) of subpart R. These requirements are summarized in table 4 of this subpart; and

(vii) Reports and notifications required by §§ 63.566 and 63.567 of subpart Y of this part. These requirements are summarized in table 5 of this subpart.

(l) If an additional petroleum refining process unit is added to a plant site or if a miscellaneous process vent, storage vessel, gasoline loading rack, or marine tank vessel loading operation that meets the criteria in paragraphs (c)(1) through

(c)(7) of this section is added to an existing petroleum refinery or if another deliberate operational process change creating an additional Group 1 emission point(s) (as defined in § 63.641) is made to an existing petroleum refining process unit, and if the addition or process change is not subject to the new source requirements as determined according to paragraphs (i) or (j) of this section, the requirements in paragraphs (l)(1) through (l)(3) of this section shall apply. Examples of process changes include, but are not limited to, changes in production capacity, or feed or raw material where the change requires construction or physical alteration of the existing equipment or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. For purposes of this paragraph and paragraph (m) of this section, process changes do not include: Process upsets, unintentional temporary process changes, and changes that are within the equipment configuration and operating conditions documented in the Notification of Compliance Status report required by § 63.654(f).

(1) The added emission point(s) and any emission point(s) within the added or changed petroleum refining process unit are subject to the requirements for an existing source.

(2) The added emission point(s) and any emission point(s) within the added or changed petroleum refining process unit shall be in compliance with this subpart by the dates specified in paragraphs (l)(2)(i) or (l)(2)(ii) of this section, as applicable.

(i) If a petroleum refining process unit is added to a plant site or an emission point(s) is added to any existing petroleum refining process unit, the added emission point(s) shall be in compliance upon initial startup of any added petroleum refining process unit or emission point(s) or by 3 years after the date of promulgation of this subpart, whichever is later.

(ii) If a deliberate operational process change to an existing petroleum refining process unit causes a Group 2 emission point to become a Group 1 emission point (as defined in § 63.641), the owner or operator shall be in compliance upon initial startup or by 3 years after the date of promulgation of this subpart, whichever is later, unless the owner or operator demonstrates to the Administrator that achieving compliance will take longer than making the change. If this demonstration is made to the Administrator's satisfaction, the owner or operator shall follow the procedures in paragraphs (m)(1) through (m)(3) of

this section to establish a compliance date.

(3) The owner or operator of a petroleum refining process unit or of a storage vessel, miscellaneous process vent, wastewater stream, gasoline loading rack, or marine tank vessel loading operation meeting the criteria in paragraphs (c)(1) through (c)(7) of this section that is added to a plant site and is subject to the requirements for existing sources shall comply with the reporting and recordkeeping requirements that are applicable to existing sources including, but not limited to, the reports listed in paragraphs (l)(3)(i) through (l)(3)(vii) of this section. A process change to an existing petroleum refining process unit shall be subject to the reporting requirements for existing sources including, but not limited to, the reports listed in paragraphs (l)(3)(i) through (l)(3)(vii) of this section. The applicable reports include, but are not limited to:

(i) The Notification of Compliance Status report as required by § 63.654(f) for the emission points that were added or changed;

(ii) Periodic Reports and other reports as required by § 63.654 (g) and (h);

(iii) Reports and notifications required by sections of subpart A of this part that are applicable to this subpart, as identified in table 6 of this subpart.

(iv) Reports and notifications required by § 63.182 of subpart H of this part, or § 60.407 of subpart VV of part 60. The requirements of subpart H are summarized in table 3 of this subpart;

(v) Reports required by § 61.357 of subpart FF;

(vi) Reports and notifications required by § 63.428 (b), (c), (g)(1), and (h)(1) through (h)(3) of subpart R of this part. These requirements are summarized in table 4 of this subpart; and

(vii) Reports and notifications required by § 63.567 of subpart Y of this part. These requirements are summarized in table 5 of this subpart.

(m) If a change that does not meet the criteria in paragraph (l) of this section is made to a petroleum refining process unit subject to this subpart, and the change causes a Group 2 emission point to become a Group 1 emission point (as defined in § 63.641), then the owner or operator shall comply with the requirements of this subpart for existing sources for the Group 1 emission point as expeditiously as practicable, but in no event later than 3 years after the emission point becomes Group 1.

(1) The owner or operator shall submit to the Administrator for approval a compliance schedule, along with a justification for the schedule.

(2) The compliance schedule shall be submitted within 180 days after the change is made or the information regarding the change is known to the source, unless the compliance schedule has been previously submitted to the permitting authority. The compliance schedule may be submitted in the next Periodic Report if the change is made after the date the Notification of Compliance Status report is due.

(3) The Administrator shall approve or deny the compliance schedule or request changes within 120 calendar days of receipt of the compliance schedule and justification. Approval is automatic if not received from the Administrator within 120 calendar days of receipt.

(n) Overlap of subpart CC with other regulations for storage vessels.

(1) After the compliance dates specified in paragraph (h) of this section, a Group 1 or Group 2 storage vessel that is part of an existing source and is also subject to the provisions of 40 CFR part 60 subpart Kb is required to comply only with the requirements of 40 CFR part 60 subpart Kb.

(2) After the compliance dates specified in paragraph (h) of this section a Group 1 storage vessel that is part of a new source and is subject to 40 CFR part 60, subpart Kb is required to comply only with this subpart.

(3) After the compliance dates specified in paragraph (h) of this section, a Group 2 storage vessel that is part of a new source and is subject to the control requirements in § 60.112b of 40 CFR part 60, subpart Kb is required to comply only with 40 CFR part 60, subpart Kb.

(4) After the compliance dates specified in paragraph (h) of this section, a Group 2 storage vessel that is part of a new source and is subject to the § 60.110b subpart Kb, but is not required to apply controls by § 63.110b or 63.112b of subpart Kb is required to comply only with this subpart.

(5) After the compliance dates specified in paragraph (h) of this section a Group 1 storage vessel that is also subject to the provisions of 40 CFR part 60, subparts K or Ka is required to only comply with the provisions of this subpart.

(6) After compliance dates specified in paragraph (h) of this section, a Group 2 storage vessel that is subject to the control requirements of 40 CFR part 60, subparts K or Ka is required to only comply with the provisions of 40 CFR part 60, subparts K or Ka.

(7) After the compliance dates specified in paragraph (h) of this section, a Group 2 storage vessel that is subject to 40 CFR part 60, subparts K or

Ka, but not to the control requirements of 40 CFR part 60, subparts K or Ka, is required to comply only with this subpart.

(o) Overlap of this subpart CC with other regulations for wastewater.

(1) After the compliance dates specified in paragraph (h) of this section a Group 1 wastewater stream managed in a piece of equipment that is also subject to the provisions of 40 CFR part 60, subpart QQQ is required to comply only with this subpart.

(2) After the compliance dates specified in paragraph (h) of this section a Group 1 or Group 2 wastewater stream that is conveyed, stored, or treated in a wastewater stream management unit that also receives streams subject to the provisions of §§ 63.133 through 63.147 of subpart G wastewater provisions of this part shall comply as specified in paragraphs (o)(2)(i) through (o)(2)(iii) of this section. Compliance with the provisions of paragraph (o)(2) of this section shall constitute compliance with the requirements of this subpart for that wastewater stream.

(i) The provisions in §§ 63.133 through 63.137 and § 63.140 of subpart G for all equipment used in the storage and conveyance of the Group 1 or Group 2 wastewater stream.

(ii) The provisions in both 40 CFR part 61, subpart FF and in §§ 63.138 and 63.139 of subpart G for the treatment and control of the Group 1 or Group 2 wastewater stream.

(iii) The provisions in §§ 63.143 through 63.148 of subpart G for monitoring and inspections of equipment and for recordkeeping and reporting requirements. The owner or operator is not required to comply with the monitoring, recordkeeping, and reporting requirements associated with the treatment and control requirements in 40 CFR part 61, subpart FF, §§ 61.355 through 61.357.

(p) Overlap of subpart CC with other regulations for equipment leaks. After the compliance dates specified in paragraph (h) of this section equipment leaks that are also subject to the provisions of 40 CFR parts 60 and 61 are required to comply only with the provisions specified in this subpart.

(q) For overlap of subpart CC with local or State regulations, the permitting authority for the affected source may allow consolidation of the monitoring, recordkeeping, and reporting requirements under this subpart with the monitoring, recordkeeping, and reporting requirements under other applicable requirements in 40 CFR parts 60, 61, or 63, and in any 40 CFR part 52 approved State implementation plan provided the implementation plan

allows for approval of alternative monitoring, reporting, or recordkeeping requirements and provided that the permit contains an equivalent degree of compliance and control.

§ 63.641 Definitions.

All terms used in this subpart shall have the meaning given them in the Clean Air Act, subpart A of this part, and in this section. If the same term is defined in subpart A and in this section, it shall have the meaning given in this section for purposes of this subpart.

Affected source means the collection of emission points to which this subpart applies as determined by the criteria in § 63.640. The term "affected source," as used in this subpart, has the same meaning as the term "affected source" in subpart A of this part.

Aliphatic means open-chained structure consisting of paraffin, olefin and acetylene hydrocarbons and derivatives.

Boiler means any enclosed combustion device that extracts useful energy in the form of steam and is not an incinerator.

By compound means by individual stream components, not by carbon equivalents.

Car-seal means a seal that is placed on a device that is used to change the position of a valve (e.g., from opened to closed) in such a way that the position of the valve cannot be changed without breaking the seal.

Closed vent system means a system that is not open to the atmosphere and is configured of piping, ductwork, connections, and, if necessary, flow inducing devices that transport gas or vapor from an emission point to a control device or back into the process. If gas or vapor from regulated equipment is routed to a process (e.g., to a petroleum refinery fuel gas system), the process shall not be considered a closed vent system and is not subject to closed vent system standards.

Combustion device means an individual unit of equipment such as a flare, incinerator, process heater, or boiler used for the combustion of organic hazardous air pollutant vapors.

Connector means flanged, screwed, or other joined fittings used to connect two pipe lines or a pipe line and a piece of equipment. A common connector is a flange. Joined fittings welded completely around the circumference of the interface are not considered connectors for the purpose of this regulation. For the purpose of reporting and recordkeeping, connector means joined fittings that are accessible.

Continuous record means documentation, either in hard copy or

computer readable form, of data values measured at least once every hour and recorded at the frequency specified in § 63.654(i).

Continuous recorder means a data recording device recording an instantaneous data value or an average data value at least once every hour.

Control device means any equipment used for recovering, removing, or oxidizing organic hazardous air pollutants. Such equipment includes, but is not limited to, absorbers, carbon adsorbers, condensers, incinerators, flares, boilers, and process heaters. For miscellaneous process vents (as defined in this section), recovery devices (as defined in this section) are not considered control devices.

Delayed coker vent means a vent that is typically intermittent in nature, and usually occurs only during the initiation of the depressuring cycle of the decoking operation when vapor from the coke drums cannot be sent to the fractionator column for product recovery, but instead is routed to the atmosphere through a closed blowdown system or directly to the atmosphere in an open blowdown system. The emissions from the decoking phases of delayed coker operations, which include coke drum deheading, draining, or decoking (coke cutting), are not considered to be delayed coker vents.

Distillate receiver means overhead receivers, overhead accumulators, reflux drums, and condenser(s) including ejector-condenser(s) associated with a distillation unit.

Distillation unit means a device or vessel in which one or more feed streams are separated into two or more exit streams, each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and the vapor phases by vaporization and condensation as they approach equilibrium within the distillation unit. Distillation unit includes the distillate receiver, reboiler, and any associated vacuum pump or steam jet.

Emission point means an individual miscellaneous process vent, storage vessel, wastewater stream, or equipment leak associated with a petroleum refinery process unit; an individual storage vessel or equipment leak associated with a bulk gas terminal or pipeline breakout station classified under Standard Industrial Classification code 2911; a gasoline loading rack classified under Standard Industrial Classification code 2911; or a marine tank vessel loading operation located at a petroleum refinery.

Equipment leak means emissions of organic hazardous air pollutants from a pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, or instrumentation system "in organic hazardous air pollutant service" as defined in this section. Vents from wastewater system drains, tank mixers, and sample valves on storage tanks are not equipment leaks.

Flame zone means the portion of a combustion chamber of a boiler or process heater occupied by the flame envelope created by the primary fuel.

Flexible operation unit means a process unit that manufactures different products periodically by alternating raw materials or operating conditions. These units are also referred to as campaign plants or blocked operations.

Flow indicator means a device that indicates whether gas is flowing, or whether the valve position would allow gas to flow, in a line.

Fuel gas system means the offsite and onsite piping and control system that gathers gaseous streams generated by refinery operations, may blend them with sources of gas, if available, and transports the blended gaseous fuel at suitable pressures for use as fuel in heaters, furnaces, boilers, incinerators, gas turbines, and other combustion devices located within or outside of the refinery. The fuel is piped directly to each individual combustion device, and the system typically operates at pressures over atmospheric. The gaseous streams can contain a mixture of methane, light hydrocarbons, hydrogen and other miscellaneous species.

Gasoline loading rack means the loading arms, pumps, meters, shutoff valves, relief valves, and other piping and valves necessary to fill gasoline cargo tanks.

Group 1 gasoline loading rack means any gasoline loading rack classified under Standard Industrial Classification code 2911 that emits from the vapor collection and processing system 10 milligrams of total organic compounds per liter of gasoline loaded.

Group 1 marine tank vessel means a vessel loaded at any land- or sea-based terminal or structure that loads liquid commodities with vapor pressures greater than or equal to 10.3 kilopascals in bulk onto marine tank vessels, that emits greater than 9.1 megagrams of any individual HAP or 13.6 megagrams of any combination of HAP annually after August 18, 1999.

Group 1 miscellaneous process vent means a miscellaneous process vent for which the volatile organic compound concentration, or the total organic

concentration (minus ethane and methane), is greater than or equal to 20 parts per million by volume, and the total volatile organic compound emissions are greater than or equal to 33 kilograms per day for existing and 7 kilograms per day for new sources at the outlet of the final recovery device (if any) and prior to any control device and prior to discharge to the atmosphere.

Group 1 storage vessel means a storage vessel at an existing source that has a design storage capacity greater than or equal to 177 cubic meters and stored-liquid maximum true vapor pressure greater than or equal to 10.4 kilopascals and HAP liquid concentration greater than 4 percent by weight total organic HAP; a storage vessel at a new source that has a design storage capacity greater than or equal to 151 cubic meters and stored-liquid maximum true vapor pressure greater than or equal to 3.4 kilopascals and HAP liquid concentration greater than 2 percent by weight total organic HAP; or a storage vessel at a new source that has a design storage capacity greater than or equal to 76 cubic meters and less than 151 cubic meters and stored-liquid maximum true vapor pressure greater than or equal to 77 kilopascals and HAP liquid concentration greater than 2 percent by weight total organic HAP.

Group 1 wastewater stream means a wastewater stream at a petroleum refinery with a total annual benzene loading of 10 megagrams per year or greater as calculated according to the procedures in 40 CFR 61.342 of subpart FF of part 61 that has a flow rate of 0.02 liters per minute or greater, a benzene concentration of 10 parts per million by weight or greater, and is not exempt from control requirements under the provisions of 40 CFR part 61, subpart FF.

Group 2 gasoline loading rack means a gasoline loading rack classified under Standard Industrial Classification code 2911 that does not meet the definition of a Group 1 gasoline loading rack.

Group 2 marine tank vessel means a marine tank vessel that does not meet the definition of a Group 1 marine tank vessel.

Group 2 miscellaneous process vent means a miscellaneous process vent that does not meet the definition of a Group 1 miscellaneous process vent.

Group 2 storage vessel means a storage vessel that does not meet the definition of a Group 1 storage vessel.

Group 2 wastewater stream means a wastewater stream that does not meet the definition of Group 1 wastewater stream.

Hazardous air pollutant or HAP means one of the chemicals listed in section 112(b) of the Clean Air Act.

Incinerator means an enclosed combustion device that is used for destroying organic compounds. Auxiliary fuel may be used to heat waste gas to combustion temperatures. Any energy recovery section present is not physically formed into one manufactured or assembled unit with the combustion section; rather, the energy recovery section is a separate section following the combustion section and the two are joined by ducts or connections carrying flue gas.

In heavy liquid service means that the piece of equipment is not in gas/vapor service or in light liquid service.

In light liquid service means that the piece of equipment contains a liquid that meets the conditions specified in § 60.593(d) of part 60, subpart GGG.

In organic hazardous air pollutant 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's as determined according to the provisions of § 63.180(d) of subpart H of this part and table 1 of this subpart. The provisions of § 63.180(d) of subpart H also specify how to determine that a piece of equipment is not in organic HAP service.

Maximum true vapor pressure means the equilibrium partial pressure exerted by the stored liquid at the temperature equal to the highest calendar-month average of the liquid storage temperature for liquids stored above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for liquids stored at the ambient temperature, as determined:

- (1) In accordance with methods specified in § 63.111 of subpart G of this part;
- (2) From standard reference texts; or
- (3) By any other method approved by the Administrator.

Miscellaneous process vent means a gas stream containing greater than 20 parts per million by volume organic HAP that is continuously or periodically discharged during normal operation of a petroleum refining process unit meeting the criteria specified in § 63.640(a). Miscellaneous process vents include gas streams that are discharged directly to the atmosphere, gas streams that are routed to a control device prior to discharge to the atmosphere, or gas streams that are diverted through a product recovery device prior to control or discharge to the atmosphere. Miscellaneous process vents include vent streams from: caustic wash

accumulators, distillation tower condensers/accumulators, flash/knockout drums, reactor vessels, scrubber overheads, stripper overheads, vacuum (steam) ejectors, wash tower overheads, water wash accumulators, blowdown condensers/accumulators, and delayed coker vents. Miscellaneous process vents do not include:

- (1) Gaseous streams routed to a fuel gas system;
- (2) Relief valve discharges;
- (3) Leaks from equipment regulated under § 63.648;
- (4) Episodic or nonroutine releases such as those associated with startup, shutdown, malfunction, maintenance, depressuring, and catalyst transfer operations;
- (5) In situ sampling systems (onstream analyzers);
- (6) Catalytic cracking unit catalyst regeneration vents;
- (7) Catalytic reformer regeneration vents;
- (8) Sulfur plant vents;
- (9) Vents from control devices such as scrubbers, boilers, incinerators, and electrostatic precipitators applied to catalytic cracking unit catalyst regeneration vents, catalytic reformer regeneration vents, and sulfur plant vents;
- (10) Vents from any stripping operations applied to comply with the wastewater provisions of this subpart, subpart G of this part, or 40 CFR part 61, subpart FF;
- (11) Coking unit vents associated with coke drum depressuring at or below a coke drum outlet pressure of 15 pounds per square inch gauge, deheading, draining, or decoking (coke cutting) or pressure testing after decoking; and
- (12) Vents from storage vessels.

Operating permit means a permit required by 40 CFR parts 70 or 71.

Organic hazardous air pollutant or organic HAP in this subpart, means any of the organic chemicals listed in table 1 of this subpart.

Petroleum-based solvents means mixtures of aliphatic hydrocarbons or mixtures of one and two ring aromatic hydrocarbons.

Periodically discharged means discharges that are intermittent and associated with routine operations. Discharges associated with maintenance activities or process upsets are not considered periodically discharged miscellaneous process vents and are therefore not regulated by the petroleum refinery miscellaneous process vent provisions.

Petroleum refining process unit means a process unit used in an establishment primarily engaged in petroleum refining as defined in the Standard Industrial

Classification code for petroleum refining (2911), and used primarily for the following:

(1) Producing transportation fuels (such as gasoline, diesel fuels, and jet fuels), heating fuels (such as kerosene, fuel gas distillate, and fuel oils), or lubricants;

(2) Separating petroleum; or

(3) Separating, cracking, reacting, or reforming intermediate petroleum streams.

(4) Examples of such units include, but are not limited to, petroleum-based solvent units, alkylation units, catalytic hydrotreating, catalytic hydrorefining, catalytic hydrocracking, catalytic reforming, catalytic cracking, crude distillation, lube oil processing, hydrogen production, isomerization, polymerization, thermal processes, and blending, sweetening, and treating processes. Petroleum refining process units also include sulfur plants.

Plant site 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.

Primary fuel means the fuel that provides the principal heat input (i.e., more than 50 percent) to the device. To be considered primary, the fuel must be able to sustain operation without the addition of other fuels.

Process heater means an enclosed combustion device that primarily transfers heat liberated by burning fuel directly to process streams or to heat transfer liquids other than water.

Process unit means the equipment assembled and connected by pipes or ducts to process raw and/or intermediate materials and to manufacture an intended product. A process unit includes any associated storage vessels. For the purpose of this subpart, process unit includes, but is not limited to, chemical manufacturing process units and petroleum refining process units.

Process unit shutdown means a work practice or operational procedure that stops production from a process unit or part of a process unit during which it is technically feasible to clear process material from a process unit or part of a process unit consistent with safety constraints and during which repairs can be accomplished. An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours is not considered a process unit shutdown. An unscheduled

work practice or operational procedure that would stop production from a process unit or part of a process unit for a shorter period of time than would be required to clear the process unit or part of the process unit of materials and start up the unit, or would result in greater emissions than delay of repair of leaking components until the next scheduled process unit shutdown is not considered a process unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping production are not considered process unit shutdowns.

Recovery device means an individual unit of equipment capable of and used for the purpose of recovering chemicals for use, reuse, or sale. Recovery devices include, but are not limited to, absorbers, carbon adsorbers, and condensers.

Reference control technology for gasoline loading racks means a vapor collection and processing system used to reduce emissions due to the loading of gasoline cargo tanks to 10 milligrams of total organic compounds per liter of gasoline loaded or less.

Reference control technology for marine vessels means a vapor collection system and a control device that reduces captured HAP emissions by 97 percent.

Reference control technology for miscellaneous process vents means a combustion device used to reduce organic HAP emissions by 98 percent, or to an outlet concentration of 20 parts per million by volume.

Reference control technology for storage vessels means either:

(1) An internal floating roof meeting the specifications of § 63.119(b) of subpart G except for § 63.119(b)(5) and (b)(6);

(2) An external floating roof meeting the specifications of § 63.119(c) of subpart G except for § 63.119(c)(2);

(3) An external floating roof converted to an internal floating roof meeting the specifications of § 63.119(d) of subpart G except for § 63.119(d)(2); or

(4) A closed-vent system to a control device that reduces organic HAP emissions by 95-percent, or to an outlet concentration of 20 parts per million by volume.

(5) For purposes of emissions averaging, these four technologies are considered equivalent.

Reference control technology for wastewater means the use of:

(1) Controls specified in §§ 61.343 through 61.347 of subpart FF of part 61;

(2) A treatment process that achieves the emission reductions specified in table 7 of this subpart for each individual HAP present in the wastewater stream or is a steam stripper

that meets the specifications in § 63.138(g) of subpart G of this part; and

(3) A control device to reduce by 95 percent (or to an outlet concentration of 20 parts per million by volume for combustion devices) the organic HAP emissions in the vapor streams vented from treatment processes (including the steam stripper described in paragraph (2) of this definition) managing wastewater.

Refinery fuel gas means a gaseous mixture of methane, light hydrocarbons, hydrogen, and other miscellaneous species (nitrogen, carbon dioxide, hydrogen sulfide, etc.) that is produced in the refining of crude oil and/or petrochemical processes and that is separated for use as a fuel in boilers and process heaters throughout the refinery.

Relief valve means a valve used only to release an unplanned, nonroutine discharge. A relief valve discharge can result from an operator error, a malfunction such as a power failure or equipment failure, or other unexpected cause that requires immediate venting of gas from process equipment in order to avoid safety hazards or equipment damage.

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 is not engaged in the manufacture of products for commercial sale, except in a de minimis manner.

Storage vessel means a tank or other vessel that is used to store organic liquids that are in organic HAP service. Storage vessel does not include:

(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 with capacities smaller than 40 cubic meters;

(4) Bottoms receiver tanks; or

(5) Wastewater storage tanks.

Wastewater storage tanks are covered under the wastewater provisions.

Temperature monitoring device means a unit of equipment used to monitor temperature and having an accuracy of ± 1 percent of the temperature being monitored expressed in degrees Celsius or ± 0.5 °C, whichever is greater.

Total annual benzene means the total amount of benzene in waste streams at a facility on an annual basis as determined in § 61.342 of 40 CFR part 61, subpart FF.

Total organic compounds or TOC, as used in this subpart, means those compounds excluding methane and ethane measured according to the procedures of Method 18 of 40 CFR part 60, appendix A. Method 25A may be used alone or in combination with Method 18 to measure TOC as provided in § 63.645 of this subpart.

Wastewater means water or wastewater that, during production or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product and is discharged into any individual drain system. Examples are feed tank drawdown; water formed during a chemical reaction or used as a reactant; water used to wash impurities from organic products or reactants; water used to cool or quench organic vapor streams through direct contact; and condensed steam from jet ejector systems pulling vacuum on vessels containing organics.

§ 63.642 General standards.

(a) Each owner or operator of a source subject to this subpart is required to apply for a part 70 or part 71 operating permit from the appropriate permitting authority. If the EPA has approved a State operating permit program under part 70, the permit shall be obtained from the State authority. If the State operating permit program has not been approved, the source shall apply to the EPA Regional Office pursuant to part 71.

(b) [Reserved]

(c) Table 6 of this subpart specifies the provisions of subpart A of this part that apply and those that do not apply to owners and operators of sources subject to this subpart.

(d) Initial performance tests and initial compliance determinations shall be required only as specified in this subpart.

(1) Performance tests and compliance determinations shall be conducted according to the schedule and procedures specified in this subpart.

(2) The owner or operator shall notify the Administrator of the intention to conduct a performance test at least 30 days before the performance test is scheduled.

(3) Performance tests shall be conducted according to the provisions of § 63.7(e) except that performance tests shall be conducted at maximum representative operating capacity for the process. During the performance test, an owner or operator shall operate the control device at either maximum or minimum representative operating conditions for monitored control device

parameters, whichever results in lower emission reduction.

(4) Data shall be reduced in accordance with the EPA-approved methods specified in the applicable section or, if other test methods are used, the data and methods shall be validated according to the protocol in Method 301 of appendix A of this part.

(e) Each owner or operator of a source subject to this subpart shall keep copies of all applicable reports and records required by this subpart for at least 5 years except as otherwise specified in this subpart. All applicable records shall be maintained in such a manner that they can be readily accessed. Records for the most recent 2 years shall be retained onsite at the source or shall be accessible from a central location by computer. The remaining 3 years of records may be retained offsite. Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.

(f) All reports required under this subpart shall be sent to the Administrator at the addresses listed in § 63.13 of subpart A of this part. If acceptable to both the Administrator and the owner or operator of a source, reports may be submitted on electronic media.

(g) The owner or operator of an existing source subject to the requirements of this subpart shall control emissions of organic HAP's to the level represented by the following equation:

$$E_A = 0.02\sum EPV_1 + \sum EPV_2 + 0.025\sum ES_1 + \sum ES_2 + \sum EGLR_{1C} + \sum EGLR_2 + (R)\sum EMV_1 + \sum EMV_2 + \sum EWW_{1C} + \sum EWW_2$$

where:

E_A = Emission rate, megagrams per year, allowed for the source.

$0.02\sum EPV_1$ = Sum of the residual emissions, megagrams per year, from all Group 1 miscellaneous process vents, as defined in § 63.641.

$\sum EPV_2$ = Sum of the emissions, megagrams per year, from all Group 2 process vents, as defined in § 63.641.

$0.05\sum ES_1$ = Sum of the residual emissions, megagrams per year, from all Group 1 storage vessels, as defined in § 63.641.

$\sum ES_2$ = Sum of the emissions, megagrams per year, from all Group 2 storage vessels, as defined in § 63.641.

$\sum EGLR_{1C}$ = Sum of the residual emissions, megagrams per year, from all Group 1 gasoline loading racks, as defined in § 63.641.

$\sum EGLR_2$ = Sum of the emissions, megagrams per year, from all Group 2 gasoline loading racks, as defined in § 63.641.

(R) $\sum EMV_1$ = Sum of the residual emissions, megagrams per year, from all Group 1 marine tank vessels, as defined in § 63.641.

$R = 0.03$ for existing sources, 0.02 for new sources except offshore loading terminals, and 0.05 for new offshore loading terminals.

$\sum EMV_2$ = Sum of the emissions, megagrams per year, from all Group 2 marine tank vessels, as defined in § 63.641.

$\sum EWW_{1C}$ = Sum of the residual emissions from all Group 1 wastewater streams, as defined in § 63.641. This term is calculated for each Group 1 stream according to the equation for EWW_{1C} in § 63.652(h)(6).

$\sum EWW_2$ = Sum of emissions from all Group 2 wastewater streams, as defined in § 63.641.

The emissions level represented by this equation is dependent on the collection of emission points in the source. The level is not fixed and can change as the emissions from each emission point change or as the number of emission points in the source change.

(h) The owner or operator of a new source subject to the requirements of this subpart shall control emissions of organic HAP's to the level represented by the equation in paragraph (g) of this section.

(i) The owner or operator of an existing source shall demonstrate compliance with the emission standard in paragraph (g) of this section by following the procedures specified in paragraph (k) of this section for all emission points, or by following the emissions averaging compliance approach specified in paragraph (l) of this section for specified emission points and the procedures specified in paragraph (k) of this section for all other emission points within the source.

(j) The owner or operator of a new source shall demonstrate compliance with the emission standard in paragraph (h) of this section only by following the procedures in paragraph (k) of this section. The owner or operator of a new source may not use the emissions averaging compliance approach.

(k) The owner or operator of an existing source may comply, and the owner or operator of a new source shall comply, with the miscellaneous process vent provisions in §§ 63.643 through 63.645, the storage vessel provisions in § 63.646, the wastewater provisions in § 63.647, the gasoline loading rack provisions in § 63.650, and the marine

tank vessel loading operation provisions in § 63.651 of this subpart.

(1) The owner or operator using this compliance approach shall also comply with the requirements of § 63.654 as applicable.

(2) The owner or operator using this compliance approach is not required to calculate the annual emission rate specified in paragraph (g) of this section.

(l) The owner or operator of an existing source may elect to control some of the emission points within the source to different levels than specified under §§ 63.643 through 63.647, §§ 63.650 and 63.651 by using an emissions averaging compliance approach as long as the overall emissions for the source do not exceed the emission level specified in paragraph (g) of this section. The owner or operator using emissions averaging shall meet the requirements in paragraphs (l)(1) and (l)(2) of this section.

(1) Calculate emission debits and credits for those emission points involved in the emissions average according to the procedures specified in § 63.652; and

(2) Comply with the requirements of §§ 63.652, 63.653, and 63.654, as applicable.

(m) A State may restrict the owner or operator of an existing source to using only the procedures in paragraph (k) of this section to comply with the emission standard in paragraph (g) of this section. Such a restriction would preclude the source from using an emissions averaging compliance approach.

§ 63.643 Miscellaneous process vent provisions.

(a) The owner or operator of a Group 1 miscellaneous process vent as defined in § 63.641 shall comply with the requirements of either paragraphs (a)(1) or (a)(2) of this section.

(1) Reduce emissions of organic HAP's using a flare that meets the requirements of § 63.11(b) of subpart A of this part.

(2) Reduce emissions of organic HAP's, using a control device, by 98 weight-percent or to a concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent. Compliance can be determined by measuring either organic HAP's or TOC's using the procedures in § 63.645.

(b) If a boiler or process heater is used to comply with the percentage of reduction requirement or concentration limit specified in paragraph (a)(2) of this section, then the vent stream shall be introduced into the flame zone of such

a device, or in a location such that the required percent reduction or concentration is achieved. Testing and monitoring is required only as specified in § 63.644(a) and § 63.645 of this subpart.

§ 63.644 Monitoring provisions for miscellaneous process vents.

(a) Except as provided in paragraph (b) of this section, each owner or operator of a Group 1 miscellaneous process vent that uses a combustion device to comply with the requirements in § 63.643(a) shall install the monitoring equipment specified in paragraph (a)(1), (a)(2), (a)(3), or (a)(4) of this section, depending on the type of combustion device used. All monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturer's specifications.

(1) Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required.

(i) Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.

(ii) Where a catalytic incinerator is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

(2) Where a flare is used, a device (including but not limited to a thermocouple, an ultraviolet beam sensor, or an infrared sensor) capable of continuously detecting the presence of a pilot flame is required.

(3) Any boiler or process heater with a design heat input capacity greater than or equal to 44 megawatt or any boiler or process heater in which all vent streams are introduced into the flame zone is exempt from monitoring.

(4) Any boiler or process heater less than 44 megawatts design heat capacity where the vent stream is not introduced into the flame zone is required to use a temperature monitoring device in the firebox equipped with a continuous recorder.

(b) An owner or operator of a Group 1 miscellaneous process vent may request approval to monitor parameters other than those listed in paragraph (a) of this section. The request shall be submitted according to the procedures specified in § 63.654(h). Approval shall be requested if the owner or operator:

(1) Uses a control device other than an incinerator, boiler, process heater, or flare; or

(2) Uses one of the control devices listed in paragraph (a) of this section, but seeks to monitor a parameter other than those specified in paragraph (a) of this section.

(c) The owner or operator of a Group 1 miscellaneous process vent using a vent system that contains bypass lines that could divert a vent stream away from the control device used to comply with paragraph (a) of this section shall comply with either paragraph (c)(1) or (c)(2) of this section. Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, pressure relief valves needed for safety reasons, and equipment subject to § 63.648 are not subject to this paragraph.

(1) Install, calibrate, maintain, and operate a flow indicator that determines whether a vent stream flow is present at least once every hour. Records shall be generated as specified in § 63.654(h) and (i). The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere; or

(2) Secure the bypass line valve in the closed 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 that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line.

(d) The owner or operator shall establish a range that ensures compliance with the emissions standard for each parameter monitored under paragraphs (a) and (b) of this section. In order to establish the range, the information required in § 63.654(f)(1)(ii) shall be submitted in the Notification of Compliance Status report.

(e) Each owner or operator of a control device subject to the monitoring provisions of this section shall operate the control device in a manner consistent with the minimum and/or maximum operating parameter value or procedure required to be monitored under paragraphs (a) and (b) of this section. Operation of the control device in a manner that constitutes a period of excess emissions, as defined in § 63.654(g)(6), or failure to perform procedures required by this section shall constitute a violation of the applicable emission standard of this subpart.

§ 63.645 Test methods and procedures for miscellaneous process vents.

(a) To demonstrate compliance with § 63.643, an owner or operator shall follow § 63.116 except for § 63.116(d) and (e) of subpart G of this part except

as provided in paragraphs (b) through (d) of this section.

(b) All references to § 63.113(a)(1) or (a)(2) in § 63.116 of subpart G of this part shall be replaced with § 63.643(a)(1) or (a)(2), respectively.

(c) In § 63.116(c)(4)(ii)(C) of subpart G of this part, organic HAP's in the list of HAP's in table 1 of this subpart shall be considered instead of the organic HAP's in table 2 of subpart F of this part.

(d) All references to § 63.116(b)(1) or (b)(2) shall be replaced with paragraphs (d)(1) and (d)(2) of this section, respectively.

(1) Any boiler or process heater with a design heat input capacity of 44 megawatts or greater.

(2) Any boiler or process heater in which all vent streams are introduced into the flame zone.

(e) For purposes of determining the TOC emission rate, as specified under paragraph (f) of this section, the sampling site shall be after the last product recovery device (as defined in § 63.641 of this subpart) (if any recovery devices are present) but prior to the inlet of any control device (as defined in § 63.641 of this subpart) that is present, prior to any dilution of the process vent stream, and prior to release to the atmosphere.

(1) Methods 1 or 1A of 40 CFR part 60, appendix A, as appropriate, shall be used for selection of the sampling site.

(2) No traverse site selection method is needed for vents smaller than 0.10 meter in diameter.

(f) Except as provided in paragraph (g) of this section, an owner or operator seeking to demonstrate that a process vent TOC mass flow rate is less than 33 kilograms per day for an existing source or less than 6.8 kilograms per day for a new source in accordance with the Group 2 process vent definition of this subpart shall determine the TOC mass flow rate by the following procedures:

(1) The sampling site shall be selected as specified in paragraph (e) of this section.

(2) The gas volumetric flow rate shall be determined using Methods 2, 2A, 2C, or 2D of 40 CFR part 60, appendix A, as appropriate.

(3) Method 18 or Method 25A of 40 CFR part 60, appendix A shall be used to measure concentration; alternatively, any other method or data that has been validated according to the protocol in Method 301 of appendix A of this part may be used. If Method 25A is used, and the TOC mass flow rate calculated from the Method 25A measurement is greater than or equal to 33 kilograms per day for an existing source or 6.8 kilograms per day for a new source, Method 18 may be used to determine

any non-VOC hydrocarbons that may be deducted to calculate the TOC (minus non-VOC hydrocarbons) concentration and mass flow rate. The following procedures shall be used to calculate parts per million by volume concentration:

(i) The minimum sampling time for each run shall be 1 hour in which either an integrated sample or four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time, such as 15-minute intervals during the run.

(ii) The TOC concentration (C_{TOC}) is the sum of the concentrations of the individual components and shall be computed for each run using the following equation if Method 18 is used:

$$C_{TOC} = \frac{\sum_{i=1}^x \left(\sum_{j=1}^n C_{ij} \right)}{X}$$

where:

C_{TOC} = Concentration of TOC (minus methane and ethane), dry basis, parts per million by volume.

C_{ij} = Concentration of sample component j of the sample i , dry basis, parts per million by volume.

n = Number of components in the sample.

x = Number of samples in the sample run.

(4) The emission rate of TOC (minus methane and ethane) (E_{TOC}) shall be calculated using the following equation if Method 18 is used:

$$E = K_2 \left[\sum_{j=1}^n C_j M_j \right] Q_v$$

where:

E = Emission rate of TOC (minus methane and ethane) in the sample, kilograms per day.

K_2 = Constant, 2.494×10^{-6} (parts per million) $^{-1}$ (gram-mole per standard cubic meter) (kilogram per gram) (minutes per hour), where the standard temperature (standard cubic meter) is at 20 °C.

C_j = Concentration on a dry basis of organic compound j in parts per million as measured by Method 18 of 40 CFR part 60, appendix A, as indicated in paragraph (f)(3) of this section. C_j includes all organic compounds measured minus methane and ethane.

M_j = Molecular weight of organic compound j , gram per gram-mole.

Q_v = Vent stream flow rate, dry standard cubic meters per minute, at a temperature of 20 °C.

(5) If Method 25A is used the emission rate of TOC (E_{TOC}) shall be calculated using the following equation:

$$E = K_2 C_{TOC} Q_v$$

where:

E = Emission rate of TOC (minus methane and ethane) in the sample, kilograms per day.

K_2 = Constant, 2.494×10^{-6} (parts per million) $^{-1}$ (gram-mole per standard cubic meter) (kilogram per gram) (minutes per hour), where the standard temperature (standard cubic meter) is at 20 °C.

C_{TOC} = Concentration of TOC on a dry basis in parts per million volume as measured by Method 25A of 40 CFR part 60, appendix A, as indicated in paragraph (f)(3) of this section.

Q_v = Vent stream flow rate, dry standard cubic meters per minute, at a temperature of 20 °C.

(g) Engineering assessment may be used to determine the TOC emission rate for the representative operating condition expected to yield the highest daily emission rate.

(i) Engineering assessment includes, but is not limited to, the following:

(i) Previous test results provided the tests are representative of current operating practices at the process unit.

(ii) Bench-scale or pilot-scale test data representative of the process under representative operating conditions.

(iii) TOC emission rate specified or implied within a permit limit applicable to the process vent.

(iv) Design analysis based on accepted chemical engineering principles, measurable process parameters, or physical or chemical laws or properties. Examples of analytical methods include, but are not limited to:

(A) Use of material balances based on process stoichiometry to estimate maximum TOC concentrations;

(B) Estimation of maximum flow rate based on physical equipment design such as pump or blower capacities; and

(C) Estimation of TOC concentrations based on saturation conditions;

(v) All data, assumptions, and procedures used in the engineering assessment shall be documented.

(h) The owner or operator of a Group 2 process vent shall recalculate the TOC emission rate for each process vent, as necessary, whenever process changes are made to determine whether the vent is in Group 1 or Group 2. Examples of process changes include, but are not limited to, changes in production capacity, production rate, or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. For purposes of this paragraph, process changes do not

include: process upsets; unintentional, temporary process changes; and changes that are within the range on which the original calculation was based.

(1) The TOC emission rate shall be recalculated based on measurements of vent stream flow rate and TOC as specified in paragraphs (e) and (f) of this section, as applicable, or on best engineering assessment of the effects of the change. Engineering assessments shall meet the specifications in paragraph (g) of this section.

(2) Where the recalculated TOC emission rate is greater than 33 kilograms per day for an existing source or greater than 6.8 kilograms per day for a new source, the owner or operator shall submit a report as specified in § 63.654 (c), (d), (e), (f), or (g), or (h) and shall comply with the appropriate provisions in § 63.643 by the dates specified in § 63.640.

§ 63.646 Storage vessel provisions.

(a) Each owner or operator of a Group 1 storage vessel subject to this subpart shall comply with the requirements of §§ 63.119 through 63.121 of subpart G of this part except as provided in paragraphs (b) through (m) of this section.

(b) As used in this section, all terms not defined in § 63.641 shall have the meaning given them in 40 CFR part 63, subparts A or G. The Group 1 storage vessel definition presented in § 63.641 shall apply in lieu of the Group 1 storage vessel definitions presented in tables 5 and 6 of § 63.119 of subpart G of this part.

(1) An owner or operator may use good engineering judgement or test results to determine the stored liquid weight percent total organic HAP for purposes of group determination. Data, assumptions, and procedures used in the determination shall be documented.

(2) When an owner or operator and the Administrator do not agree on whether the weight percent organic HAP in the stored liquid is above or below 4 percent for existing sources and 2 percent for new sources, Method 18 of 40 CFR part 60, appendix A shall be used.

(c) The following paragraphs do not apply to storage vessels at existing sources subject to this subpart: § 63.119 (b)(5), (b)(6), (c)(2), and (d)(2).

(d) References shall be replaced as specified in paragraphs (d)(1) through (d)(9) of this section.

(1) All references to § 63.100(k) of subpart F of this part (or the schedule provisions and the compliance date) shall be replaced with § 63.640(h).

(2) All references to April 22, 1994 shall be replaced with August 18, 1995.

(3) All references to December 31, 1992 shall be replaced with July 15, 1994.

(4) All references to the compliance dates specified in § 63.100 of subpart F shall be replaced with § 63.640 (h) through (m).

(5) All references to § 63.150 in § 63.119 of subpart G of this part shall be replaced with § 63.652.

(6) All references to § 63.113(a)(2) of subpart G shall be replaced with § 63.643(a)(2) of this subpart.

(7) All references to § 63.126(b)(1) of subpart G shall be replaced with § 63.422(b) of subpart R of this part.

(8) All references to § 63.128(a) of subpart G shall be replaced with § 63.425, paragraphs (a) through (c) and (e) through (h) of subpart R of this part.

(9) All references to § 63.139(d)(1) in § 63.120(d)(1)(iii) of subpart G shall be replaced with § 61.355 of subpart FF of part 61.

(e) When complying with the inspection requirements of § 63.120 of subpart G of this part, owners and operators of storage vessels at existing sources subject to this subpart are not required to comply with the provisions for gaskets, slotted membranes, and sleeve seals.

(f) The following paragraphs (f)(1), (f)(2), and (f)(3) of this section apply to Group 1 storage vessels at existing sources:

(1) If a cover or lid is installed on an opening on a floating roof, the cover or lid shall remain closed except when the cover or lid must be open for access.

(2) Rim space vents are to be set to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

(3) Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(g) Failure to perform inspections and monitoring required by this section shall constitute a violation of the applicable standard of this subpart.

(h) References in §§ 63.119 through 63.121 to § 63.122(g)(1), § 63.151, and references to initial notification requirements do not apply.

(i) References to the Implementation Plan in § 63.120, paragraphs (d)(2) and (d)(3)(i) shall be replaced with the Notification of Compliance Status report.

(j) References to the Notification of Compliance Status report in § 63.152(b) shall be replaced with § 63.654(f).

(k) References to the Periodic Reports in § 63.152(c) shall be replaced with § 63.654(g).

(l) The State or local permitting authority can waive the notification requirements of §§ 63.120(a)(5), 63.120(a)(6), 63.120(b)(10)(ii), and 63.120(b)(10)(iii) for all or some storage vessels at petroleum refineries subject to this subpart. The State or local permitting authority may also grant permission to refill storage vessels sooner than 30 days after submitting the notifications in §§ 63.120(a)(6) or 63.120(b)(10)(iii) for all storage vessels at a refinery or for individual storage vessels on a case-by-case basis.

§ 63.647 Wastewater provisions.

(a) Except as provided in paragraph (b) of this section, each owner or operator of a Group 1 wastewater stream shall comply with the requirements of §§ 61.340 through 61.355 of 40 CFR part 61, subpart FF for each process wastewater stream that meets the definition in § 63.641.

(b) As used in this section, all terms not defined in § 63.641 shall have the meaning given them in the Clean Air Act or in 40 CFR part 61, subpart FF, § 61.341.

(c) Each owner or operator required under subpart FF of 40 CFR part 61 to perform periodic measurement of benzene concentration in wastewater, or to monitor process or control device operating parameters shall operate in a manner consistent with the minimum or maximum (as appropriate) permitted concentration or operating parameter values. Operation of the process, treatment unit, or control device resulting in a measured concentration or operating parameter value outside the permitted limits shall constitute a violation of the emission standards. Failure to perform required leak monitoring for closed vent systems and control devices or failure to repair leaks within the time period specified in subpart FF of 40 CFR part 61 shall constitute a violation of the standard.

§ 63.648 Equipment leak standards.

(a) Each owner or operator of an existing source subject to the provisions of this subpart shall comply with the provisions of 40 CFR part 60 subpart VV and paragraph (b) of this section except as provided in paragraphs (a)(1), (a)(2), and (c) through (i) of this section. Each owner or operator of a new source subject to the provisions of this subpart shall comply with subpart H of this part except as provided in paragraphs (c) through (i) of this section.

(1) For purposes of compliance with this section, the provisions of 40 CFR part 60, subpart VV apply only to equipment in organic HAP service, as defined in § 63.641 of this subpart.

(2) Calculation of percentage leaking equipment components for subpart VV of 40 CFR part 60 may be done on a process unit basis or a sourcewide basis. Once the owner or operator has decided, all subsequent calculations shall be on the same basis unless a permit change is made.

(b) The use of monitoring data generated before August 18, 1995 to qualify for less frequent monitoring of valves and pumps as provided under 40 CFR part 60 subpart VV or subpart H of this part and paragraph (c) of this section (i.e., quarterly or semiannually) is governed by the requirements of paragraphs (b)(1) and (b)(2) of this section.

(1) Monitoring data must meet the test methods and procedures specified in § 60.485(b) of 40 CFR part 60, subpart VV or § 63.180(b)(1) through (b)(5) of subpart H of this part except for minor departures.

(2) Departures from the criteria specified in § 60.485(b) of 40 CFR part 60 subpart VV or § 63.180(b)(1) through (b)(5) of subpart H of this part or from the monitoring frequency specified in subpart VV or in paragraph (c) of this section (such as every 6 weeks instead of monthly or quarterly) are minor and do not significantly affect the quality of the data. An example of a minor departure is monitoring at a slightly different frequency (such as every 6 weeks instead of monthly or quarterly). Failure to use a calibrated instrument is not considered a minor departure.

(c) In lieu of complying with the existing source provisions of paragraph (a) in this section, an owner or operator may elect to comply with the requirements of §§ 63.161 through 63.169, 63.171, 63.172, 63.175, 63.176, 63.177, 63.179, and 63.180 of subpart H of this part except as provided in paragraphs (c)(1) through (c)(10) and (e) through (i) of this section.

(1) The instrument readings that define a leak for light liquid pumps subject to § 63.163 of subpart H of this part and gas/vapor and light liquid valves subject to § 63.168 of subpart H of this part are specified in table 2 of this subpart.

(2) In phase III of the valve standard, the owner or operator may monitor valves for leaks as specified in paragraphs (c)(2)(i) or (c)(2)(ii) of this section.

(i) If the owner or operator does not elect to monitor connectors, then the owner or operator shall monitor valves according to the frequency specified in table 8 of this subpart.

(ii) If an owner or operator elects to monitor connectors according to the provisions of § 63.649, paragraphs (b),

(c), or (d), then the owner or operator shall monitor valves at the frequencies specified in table 9 of this subpart.

(3) The owner or operator shall decide no later than the first required monitoring period after the phase I compliance date specified in § 63.640(h) whether to calculate the percentage leaking valves on a process unit basis or on a sourcewide basis. Once the owner or operator has decided, all subsequent calculations shall be on the same basis unless a permit change is made.

(4) The owner or operator shall decide no later than the first monitoring period after the phase III compliance date specified in § 63.640(h) whether to monitor connectors according to the provisions in § 63.649, paragraphs (b), (c), or (d).

(5) Connectors in gas/vapor service or light liquid service are subject to the requirements for connectors in heavy liquid service in § 63.169 of subpart H of this part (except for the agitator provisions). The leak definition for valves, connectors, and instrumentation systems subject to § 63.169 is 1,000 parts per million.

(6) In phase III of the pump standard, except as provided in paragraph (c)(7) of this section, owners or operators that achieve less than 10 percent of light liquid pumps leaking or three light liquid pumps leaking, whichever is greater, shall monitor light liquid pumps monthly.

(7) Owners or operators that achieve less than 3 percent of light liquid pumps leaking or one light liquid pump leaking, whichever is greater, shall monitor light liquid pumps quarterly.

(8) An owner or operator may make the election described in paragraphs (c)(3) and (c)(4) of this section at any time except that any election to change after the initial election shall be treated as a permit modification according to the terms of part 70 of this chapter.

(9) When complying with the requirements of § 63.138(e)(3)(i) of subpart H of this part, non-repairable valves shall be included in the calculation of percent leaking valves the first time the valve is identified as leaking and non-repairable. Otherwise, a number of non-repairable valves up to a maximum of 1 percent per year of the total number of valves in organic HAP service up to a maximum of 3 percent may be excluded from calculation of percent leaking valves for subsequent monitoring periods. When the number of non-repairable valves exceeds 3 percent of the total number of valves in organic HAP service, the number of non-repairable valves exceeding 3 percent of the total number shall be

included in the calculation of percent leaking valves.

(10) If in phase III of the valve standard any valve is designated, as described in 40 CFR 60.4685(e)(2), as having no detectable emissions the owner or operator has the option of following the provisions of § 60.482-7(f) of subpart VV of part 60. If an owner or operator chooses to comply with the provisions of 40 CFR 60.482-7(f), the valve is exempt from the valve monitoring provisions of § 63.168 of subpart H of this part.

(d) Upon startup of new sources, the owner or operator shall comply with § 63.163(a)(1)(ii) of subpart H of this part for light liquid pumps and § 63.168(a)(1)(ii) of subpart H of this part for gas/vapor and light liquid valves.

(e) For reciprocating pumps in heavy liquid service, owners and operators are not required to comply with the requirements in § 63.169 of subpart H of this part.

(f) Reciprocating pumps in light liquid service are exempt from §§ 63.163 and 60.482 if recasting the distance piece or reciprocating pump replacement is required.

(g) Compressors in hydrogen service are exempt from the requirements of paragraphs (a) and (c) of this section if an owner or operator demonstrates that a compressor is in hydrogen service.

(1) Each compressor is presumed not to be in hydrogen service unless an owner or operator demonstrates that the piece of equipment is in hydrogen service.

(2) For a piece of equipment to be considered in hydrogen service, it must be determined that the percentage hydrogen content can be reasonably expected always to exceed 50 percent by volume.

(i) For purposes of determining the percentage hydrogen content in the process fluid that is contained in or contacts a compressor, the owner or operator shall use either:

(A) Procedures that conform to those specified in § 60.593(b)(2) of 40 part 60, subpart GGG.

(B) Engineering judgment to demonstrate that the percentage content exceeds 50 percent by volume, provided the engineering judgment demonstrates that the content clearly exceeds 50 percent by volume.

(1) When an owner or operator and the Administrator do not agree on whether a piece of equipment is in hydrogen service, the procedures in paragraph (g)(2)(i)(A) of this section shall be used to resolve the disagreement.

(2) If an owner or operator determines that a piece of equipment is in hydrogen service, the determination can be revised only by following the procedures in paragraph (g)(2)(i)(A) of this section.

(h) Each owner or operator of a source subject to the provisions of this subpart must maintain all records for a minimum of 5 years.

(i) Reciprocating compressors are exempt from seal requirements if recasting the distance piece or compressor replacement is required.

§ 63.649 Alternative means of emission limitation: Connectors in gas/vapor service and light liquid service.

(a) If an owner or operator elects to monitor valves according to the provisions of § 63.648(c)(2)(ii), the owner or operator shall implement one of the connector monitoring programs, specified in paragraphs (b), (c), or (d) of this section.

(b) *Random 200 connector alternative.* The owner or operator shall implement a random sampling program for accessible connectors of 2.0 inches nominal diameter or greater. The program does not apply to inaccessible or unsafe-to-monitor connectors, as defined in § 63.174 of subpart H. The sampling program shall be implemented source-wide.

(1) Within the first 12 months after the phase III compliance date specified in § 63.640(h), a sample of 200 connectors shall be randomly selected and monitored using Method 21 of 40 CFR part 60, appendix A.

(2) The instrument reading that defines a leak is 1,000 parts per million.

(3) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected except as provided in paragraph (e) of this section. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(4) If a leak is detected, the connector shall be monitored for leaks within the first 3 months after its repair.

(5) After conducting the initial survey required in paragraph (b)(1) of this section, the owner or operator shall conduct subsequent monitoring of connectors at the frequencies specified in paragraphs (b)(5)(i) through (b)(5)(iv) of this section.

(i) If the percentage leaking connectors is 2.0 percent or greater, the owner or operator shall survey a random sample of 200 connectors once every 6 months.

(ii) If the percentage leaking connectors is 1.0 percent or greater but less than 2.0 percent, the owner or

operator shall survey a random sample of 200 connectors once per year.

(iii) If the percentage leaking connectors is 0.5 percent or greater but less than 1.0 percent, the owner or operator shall survey a random sample of 200 connectors once every 2 years.

(iv) If the percentage leaking connectors is less than 0.5 percent, the owner or operator shall survey a random sample of 200 connectors once every 4 years.

(5) Physical tagging of the connectors to indicate that they are subject to the monitoring provisions is not required. Connectors may be identified by the area or length of pipe and need not be individually identified.

(c) *Connector inspection alternative.* The owner or operator shall implement a program to monitor all accessible connectors in gas/vapor service that are 2.0 inches (nominal diameter) or greater and inspect all accessible connectors in light liquid service that are 2 inches (nominal diameter) or greater as described in paragraphs (c)(1) through (c)(7) of this section. The program does not apply to inaccessible or unsafe-to-monitor connectors.

(1) Within 12 months after the phase III compliance date specified in § 63.640(h), all connectors in gas/vapor service shall be monitored using Method 21 of 40 CFR part 60 appendix A. The instrument reading that defines a leak is 1,000 parts per million.

(2) All connectors in light liquid service shall be inspected for leaks. A leak is detected if liquids are observed to be dripping at a rate greater than three drops per minute.

(3) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected except as provided in paragraph (e) of this section. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(4) If a leak is detected, connectors in gas/vapor service shall be monitored for leaks within the first 3 months after repair. Connectors in light liquid service shall be inspected for indications of leaks within the first 3 months after repair. A leak is detected if liquids are observed to be dripping at a rate greater than three drops per minute.

(5) After conducting the initial survey required in paragraphs (c)(1) and (c)(2) of this section, the owner or operator shall conduct subsequent monitoring at the frequencies specified in paragraphs (c)(5)(i) through (c)(5)(iii) of this section.

(i) If the percentage leaking connectors is 2.0 percent or greater, the owner or operator shall monitor or

inspect, as applicable, the connectors once per year.

(ii) If the percentage leaking connectors is 1.0 percent or greater but less than 2.0 percent, the owner or operator shall monitor or inspect, as applicable, the connectors once every 2 years.

(iii) If the percentage leaking connectors is less than 1.0 percent, the owner or operator shall monitor or inspect, as applicable, the connectors once every 4 years.

(6) The percentage leaking connectors shall be calculated for connectors in gas/vapor service and for connectors in light liquid service. The data for the two groups of connectors shall not be pooled for the purpose of determining the percentage leaking connectors.

(i) The percentage leaking connectors shall be calculated as follows:

$$\% CL = [(CL - C_{AN}) / (C_L + C_{AN})] \times 100$$

where:

% CL = Percentage leaking connectors.

C_L = Number of connectors including nonreparables, measured at 1,000 parts per million or greater, by Method 21 of 40 CFR part 60, Appendix A.

C_{AN} = Number of allowable nonreparable connectors, as determined by monitoring, not to exceed 3 percent of the total connector population, C.

C_t = Total number of monitored connectors, including nonreparables, in the process unit.

C_c = Optional credit for removed connectors = 0.67 × net number (i.e., the total number of connectors removed minus the total added) of connectors in organic HAP service removed from the process unit after the applicability date set forth in § 63.640(h)(4)(iii) for existing process units, and after the date of start-up for new process units. If credits are not taken, then C_c = 0.

(ii) Nonreparable connectors shall be included in the calculation of percentage leaking connectors the first time the connector is identified as leaking and nonreparable. Otherwise, a number of nonreparable connectors up to a maximum of 1 percent per year of the total number of connectors in organic HAP service up to a maximum of 3 percent may be excluded from calculation of percentage leaking connectors for subsequent monitoring periods.

(iii) If the number of nonreparable connectors exceeds 3 percent of the total number of connectors in organic HAP service, the number of nonreparable connectors exceeding 3 percent of the total number shall be included in the

calculation of the percentage leaking connectors.

(7) Physical tagging of the connectors to indicate that they are subject to the monitoring provisions is not required. Connectors may be identified by the area or length of pipe and need not be individually identified.

(d) *Subpart H program.* The owner or operator shall implement a program to comply with the provisions in § 63.174 of this part.

(e) Delay of repair of connectors for which leaks have been detected is allowed if repair is not technically feasible by normal repair techniques without a process unit shutdown. Repair of this equipment shall occur by the end of the next process unit shutdown.

(1) Delay of repair is allowed for equipment that is isolated from the process and that does not remain in organic HAP service.

(2) Delay of repair for connectors is also allowed if:

(i) The owner or operator determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and

(ii) When repair procedures are accomplished, the purged material would be collected and destroyed or recovered in a control device.

(f) Any connector that is designated as an unsafe-to-repair connector is exempt from the requirements of paragraphs (b)(3) and (b)(4), (c)(3) and (c)(4), or (d) of this section if:

(1) The owner or operator determines that repair personnel would be exposed to an immediate danger as a consequence of complying with paragraphs (b)(3) and (b)(4), (c)(3) and (c)(4), of this section; or

(2) The connector will be repaired before the end of the next scheduled process unit shutdown.

(g) The owner or operator shall maintain records to document that the connector monitoring or inspections have been conducted as required and to document repair of leaking connectors as applicable.

§ 63.650 Gasoline loading rack provisions.

(a) Except as provided in paragraphs (b) through (c) of this section, each owner or operator of a gasoline loading rack classified under Standard Industrial Classification code 2911 located within a contiguous area and under common control with a petroleum refinery shall comply with subpart R, §§ 63.421, 63.422(a) through (d), 63.425(a) through (c), 63.425(e) through (h), 63.427(a) and (b), and

63.428(b), (c), (g)(1), and (h)(1) through (h)(3).

(b) As used in this section, all terms not defined in § 63.641 shall have the meaning given them in subpart A or in 40 CFR part 63, subpart R. The § 63.641 definition of "affected source" applies under this section.

(c) Gasoline loading racks regulated under this subpart are subject to the compliance dates specified in § 63.640(h).

§ 63.651 Marine tank vessel loading operation provisions.

(a) Except as provided in paragraphs (b) through (c) of this section, each owner or operator of a marine tank vessel loading operation located at a petroleum refinery shall comply with the requirements of §§ 63.560 through 63.567 of 40 CFR part 63, subpart Y.

(b) As used in this section, all terms not defined in § 63.641 shall have the meaning given them in subpart A or in 40 CFR part 63, subpart Y. The § 63.641 definition of "affected source" applies under this section.

(c) The Initial Notification Report under § 63.567(b) is not required.

§ 63.652 Emissions averaging provisions.

(a) This section applies to owners or operators of existing sources who seek to comply with the emission standard in § 63.642(g) by using emissions averaging according to § 63.642(l) rather than following the provisions of §§ 63.643 through 63.647, and §§ 63.550 and 63.651. Existing marine tank vessel loading operations unable to comply with the standard by using emissions averaging are those marine tank vessels subject to 40 CFR 63.562(e) of this part and the Valdez Marine Terminal source.

(b) The owner or operator shall develop and submit for approval an Implementation Plan containing all of the information required in § 63.653(d) for all points to be included in an emissions average. The Implementation Plan shall identify all emission points to be included in the emissions average. This must include any Group 1 emission points to which the reference control technology (defined in § 63.641) is not applied and all other emission points being controlled as part of the average.

(c) The following emission points can be used to generate emissions averaging credits if control was applied after November 15, 1990 and if sufficient information is available to determine the appropriate value of credits for the emission point:

- (1) Group 2 emission points;
- (2) Group 1 storage vessels, Group 1 wastewater streams, Group 1 gasoline

loading racks, Group 1 marine tank vessels, and Group 1 miscellaneous process vents that are controlled by a technology that the Administrator or permitting authority agrees has a higher nominal efficiency than the reference control technology. Information on the nominal efficiencies for such technologies must be submitted and approved as provided in paragraph (i) of this section; and

(3) Emission points from which emissions are reduced by pollution prevention measures. Percentages of reduction for pollution prevention measures shall be determined as specified in paragraph (j) of this section.

(i) For a Group 1 emission point, the pollution prevention measure must reduce emissions more than the reference control technology would have had the reference control technology been applied to the emission point instead of the pollution prevention measure except as provided in paragraph (c)(3)(ii) of this section.

(ii) If a pollution prevention measure is used in conjunction with other controls for a Group 1 emission point, the pollution prevention measure alone does not have to reduce emissions more than the reference control technology, but the combination of the pollution prevention measure and other controls must reduce emissions more than the reference control technology would have had it been applied instead.

(d) The following emission points cannot be used to generate emissions averaging credits:

(1) Emission points already controlled on or before November 15, 1990 unless the level of control is increased after November 15, 1990, in which case credit will be allowed only for the increase in control after November 15, 1990;

(2) Group 1 emission points that are controlled by a reference control technology unless the reference control technology has been approved for use in a different manner and a higher nominal efficiency has been assigned according to the procedures in paragraph (i) of this section. For example, it is not allowable to claim that an internal floating roof meeting only the specifications stated in the reference control technology definition in § 63.641 (i.e., that meets the specifications of § 63.119(b) of subpart G but does not have controlled fittings per § 63.119 (b)(5) and (b)(6) of subpart G) applied to a storage vessel is achieving greater than 95 percent control;

(3) Emission points on shutdown process units. Process units that are shut down cannot be used to generate credits or debits;

(4) Wastewater that is not process wastewater or wastewater streams treated in biological treatment units. These two types of wastewater cannot be used to generate credits or debits. Group 1 wastewater streams cannot be left undercontrolled or uncontrolled to generate debits. For the purposes of this section, the terms "wastewater" and "wastewater stream" are used to mean process wastewater; and

(5) Emission points controlled to comply with a State or Federal rule other than this subpart, unless the level of control has been increased after November 15, 1990 above what is required by the other State or Federal rule. Only the control above what is required by the other State or Federal rule will be credited. However, if an emission point has been used to generate emissions averaging credit in an approved emissions average, and the point is subsequently made subject to a State or Federal rule other than this subpart, the point can continue to generate emissions averaging credit for the purpose of complying with the previously approved average.

(e) For all points included in an emissions average, the owner or operator shall:

(1) Calculate and record monthly debits for all Group 1 emission points that are controlled to a level less stringent than the reference control technology for those emission points. Equations in paragraph (g) of this section shall be used to calculate debits.

(2) Calculate and record monthly credits for all Group 1 or Group 2 emission points that are overcontrolled to compensate for the debits. Equations in paragraph (h) of this section shall be used to calculate credits. Emission points and controls that meet the criteria of paragraph (c) of this section may be included in the credit calculation, whereas those described in paragraph (d) of this section shall not be included.

(3) Demonstrate that annual credits calculated according to paragraph (h) of this section are greater than or equal to debits calculated for the same annual compliance period according to paragraph (g) of this section.

(i) The initial demonstration in the Implementation Plan that credit-generating emission points will be capable of generating sufficient credits to offset the debits from the debit-generating emission points must be made under representative operating conditions.

(ii) After the compliance date, actual operating data will be used for all debit and credit calculations.

(4) Demonstrate that debits calculated for a quarterly (3-month) period according to paragraph (g) of this section are not more than 1.30 times the credits for the same period calculated according to paragraph (h) of this section. Compliance for the quarter shall be determined based on the ratio of credits and debits from that quarter, with 30 percent more debits than credits allowed on a quarterly basis.

(5) Record and report quarterly and annual credits and debits in the Periodic Reports as specified in § 63.654(g)(8). Every fourth Periodic Report shall include a certification of compliance with the emissions averaging provisions as required by § 63.654(g)(8)(iii).

(f) Debits and credits shall be calculated in accordance with the methods and procedures specified in paragraphs (g) and (h) of this section,

respectively, and shall not include emissions from the following:

(1) More than 20 individual emission points. Where pollution prevention measures (as specified in paragraph (j)(1) of this section) are used to control emission points to be included in an emissions average, no more than 25 emission points may be included in the average. For example, if two emission points to be included in an emissions average are controlled by pollution prevention measures, the average may include up to 22 emission points.

(2) Periods of startup, shutdown, and malfunction as described in the source's startup, shutdown, and malfunction plan required by § 63.6(e)(3) of subpart A of this part.

(3) For emission points for which continuous monitors are used, periods of excess emissions as defined in § 63.654(g)(6)(i). For these periods, the calculation of monthly credits and

debits shall be adjusted as specified in paragraphs (f)(3)(i) through (f)(3)(iii) of this section.

(i) No credits would be assigned to the credit-generating emission point.

(ii) Maximum debits would be assigned to the debit-generating emission point.

(iii) The owner or operator may use the procedures in paragraph (l) of this section to demonstrate to the Administrator that full or partial credits or debits should be assigned.

(g) Debits are generated by the difference between the actual emissions from a Group 1 emission point that is uncontrolled or is controlled to a level less stringent than the reference control technology, and the emissions allowed for Group 1 emission point. Debits shall be calculated as follows:

(1) The overall equation for calculating sourcewide debits is:

$$\text{Debits} = \sum_{i=1}^n (\text{EPV}_{\text{ACTUAL}} - (0.02)\text{EPV}_{\text{iu}}) + \sum_{i=1}^n (\text{ES}_{\text{ACTUAL}} - (0.05)\text{ES}_{\text{iu}}) + \sum_{i=1}^n (\text{EGLR}_{\text{ACTUAL}} - \text{EGLR}_{\text{ic}}) + \sum_{i=1}^n (\text{EMV}_{\text{ACTUAL}} - (0.03)\text{EMV}_{\text{iu}})$$

where:

Debits and all terms of the equation are in units of megagrams per month, and

$\text{EPV}_{\text{ACTUAL}}$ = Emissions from each Group 1 miscellaneous process vent i that is uncontrolled or is controlled to a level less stringent than the reference control technology. This is calculated according to paragraph (g)(2) of this section.

(0.02) EPV_{iu} = Emissions from each Group 1 miscellaneous process vent i if the reference control technology had been applied to the uncontrolled emissions, calculated according to paragraph (g)(2) of this section.

$\text{ES}_{\text{ACTUAL}}$ = Emissions from each Group 1 storage vessel i that is uncontrolled or is controlled to a level less stringent than the reference control technology. This is calculated according to paragraph (g)(3) of this section.

(0.05) ES_{iu} = Emissions from each Group 1 storage vessel i if the reference control technology had been applied to the uncontrolled emissions, calculated according to paragraph (g)(3) of this section.

$\text{EGLR}_{\text{ACTUAL}}$ = Emissions from each Group 1 gasoline loading rack i that is uncontrolled or is controlled to a level less stringent than the

reference control technology. This is calculated according to paragraph (g)(4) of this section.

EGLR_{ic} = Emissions from each Group 1 gasoline loading rack i if the reference control technology had been applied to the uncontrolled emissions. This is calculated according to paragraph (g)(4) of this section.

$\text{EMV}_{\text{ACTUAL}}$ = Emissions from each Group 1 marine tank vessel i that is uncontrolled or is controlled to a level less stringent than the reference control technology. This is calculated according to paragraph (g)(5) of this section.

(0.03) EMV_{iu} = Emissions from each Group 1 marine tank vessel i if the reference control technology had been applied to the uncontrolled emissions calculated according to paragraph (g)(5) of this section.

n = The number of Group 1 emission points being included in the emissions average. The value of n is not necessarily the same for each kind of emission point.

(2) Emissions from miscellaneous process vents shall be calculated as follows:

(i) For purposes of determining miscellaneous process vent stream flow rate, organic HAP concentrations, and

temperature, the sampling site shall be after the final product recovery device, if any recovery devices are present; before any control device (for miscellaneous process vents, recovery devices shall not be considered control devices); and before discharge to the atmosphere. Method 1 or 1A of part 60, appendix A shall be used for selection of the sampling site.

(ii) The following equation shall be used for each miscellaneous process vent i to calculate EPV_{iu} :

$$\text{EPV}_{\text{iu}} = (2.494 \times 10^{-9}) Qh \left(\sum_{j=1}^n C_j M_j \right)$$

where:

EPV_{iu} = Uncontrolled process vent emission rate from miscellaneous process vent i , megagrams per month.

Q = Vent stream flow rate, dry standard cubic meters per minute, measured using Methods 2, 2A, 2C, or 2D of part 60 appendix A, as appropriate.

h = Monthly hours of operation during which positive flow is present in the vent, hours per month.

C_j = Concentration, parts per million by volume, dry basis, of organic HAP j as measured by Method 18 of part 60 appendix A.

M_j =Molecular weight of organic HAP j , gram per gram-mole.
 n =Number of organic HAP's in the miscellaneous process vent stream.

(A) The values of Q , C_j , and M_j shall be determined during a performance test conducted under representative operating conditions. The values of Q , C_j , and M_j shall be established in the Notification of Compliance Status report and must be updated as provided in paragraph (g)(2)(ii)(B) of this section.

(B) If there is a change in capacity utilization other than a change in

monthly operating hours, or if any other change is made to the process or product recovery equipment or operation such that the previously measured values of Q , C_j , and M_j are no longer representative, a new performance test shall be conducted to determine new representative values of Q , C_j , and M_j . These new values shall be used to calculate debits and credits from the time of the change forward, and the new values shall be reported in the next Periodic Report.

(iii) The following procedures and equations shall be used to calculate EPV_{ACTUAL} :

(A) If the vent is not controlled by a control device or pollution prevention measure, $EPV_{\text{ACTUAL}} = EPV_{\text{in}}$, where EPV_{in} is calculated according to the procedures in paragraphs (g)(2)(i) and (g)(2)(ii) of this section.

(B) If the vent is controlled using a control device or a pollution prevention measure achieving less than 98-percent reduction,

$$EPV_{\text{ACTUAL}} = EPV_{\text{in}} \times \left(1 - \frac{\text{Percent reduction}}{100\%} \right)$$

(1) The percent reduction shall be measured according to the procedures in § 63.116 of subpart G if a combustion control device is used. For a flare meeting the criteria in § 63.116(a) of subpart G, or a boiler or process heater meeting the criteria in § 63.645(d) of this subpart or § 63.116(b) of subpart G, the percentage of reduction shall be 98 percent. If a noncombustion control device is used, percentage of reduction shall be demonstrated by a performance test at the inlet and outlet of the device,

or, if testing is not feasible, by a control design evaluation and documented engineering calculations.

(2) For determining debits from miscellaneous process vents, product recovery devices shall not be considered control devices and cannot be assigned a percentage of reduction in calculating EPV_{ACTUAL} . The sampling site for measurement of uncontrolled emissions is after the final product recovery device.

(3) Procedures for calculating the percentage of reduction of pollution prevention measures are specified in paragraph (j) of this section.

(3) Emissions from storage vessels shall be calculated as specified in § 63.150(g)(3) of subpart G.

(4) Emissions from gasoline loading racks shall be calculated as follows:

(i) The following equation shall be used for each gasoline loading rack i to calculate $EGLR_{\text{in}}$:

$$EGLR_{\text{in}} = (1.20 \times 10^{-7}) \frac{\text{SPMG}}{T}$$

where:

$EGLR_{\text{in}}$ =Uncontrolled transfer HAP emission rate from gasoline loading rack i , megagrams per month

S =Saturation factor, dimensionless (see table 33 of subpart G).

P =Weighted average rack partial pressure of organic HAP's

transferred at the rack during the month, kilopascals.
 M =Weighted average molecular weight of organic HAP's transferred at the gasoline loading rack during the month, gram per gram-mole.
 G =Monthly volume of gasoline transferred from gasoline loading rack, liters per month.

T =Weighted rack bulk liquid loading temperature during the month, degrees kelvin (degrees Celsius $^{\circ}\text{C} + 273$).

(ii) The following equation shall be used for each gasoline loading rack i to calculate the weighted average rack partial pressure:

$$P = \frac{\sum_{j=1}^n (P_j)(G_j)}{G}$$

where:

P_j =Maximum true vapor pressure of individual organic HAP transferred at the rack, kilopascals.

G =Monthly volume of organic HAP transferred, liters per month, and

$$G = \sum_{i=1}^n G_i$$

G_j =Monthly volume of individual organic HAP transferred at the

gasoline loading rack, liters per month.

n =Number of organic HAP's transferred at the gasoline loading rack.

(iii) The following equation shall be used for each gasoline loading rack i to calculate the weighted average rack molecular weight:

$$M = \frac{\sum_{j=1}^n (M_j)(G_j)}{G}$$

where:

M_j =Molecular weight of individual organic HAP transferred at the rack, gram per gram-mole.

G , G_j , and n are as defined in paragraph (g)(4)(ii) of this section.

(iv) The following equation shall be used for each gasoline loading rack i to calculate the monthly weighted rack bulk liquid loading temperature:

$$T = \frac{\sum_{j=1}^n (T_j)(G_j)}{G}$$

T_j =Average annual bulk temperature of individual organic HAP loaded at the gasoline loading rack, kelvin (degrees Celsius °C+273).

G , G_j , and n are as defined in paragraph (g)(4)(ii) of this section.

(v) The following equation shall be used to calculate $EGLR_{ic}$:

$$EGLR_{ic} = 1 \times 10^{-3} G$$

G is as defined in paragraph (g)(4)(ii) of this section.

(vi) The following procedures and equations shall be used to calculate $EGLR_{iACTUAL}$:

(A) If the gasoline loading rack is not controlled, $EGLR_{iACTUAL} = EGLR_{iu}$, where $EGLR_{iu}$ is calculated using the equations specified in paragraphs (g)(4)(i) through (g)(4)(iv) of this section.

(B) If the gasoline loading rack is controlled using a control device or a pollution prevention measure not achieving the requirement of less than 10 milligrams of TOC per liter of gasoline loaded,

$$EMV_{iu} = \sum_{i=1}^m (Q_i)(F_i)(P_i)$$

(1) The percent reduction for a control device shall be measured according to the procedures and test methods specified in § 63.128(a) of subpart G. If testing is not feasible, the percentage of reduction shall be determined through a design evaluation according to the procedures specified in § 63.128(h) of subpart G.

(2) Procedures for calculating the percentage of reduction for pollution prevention measures are specified in paragraph (j) of this section.

$$EMV_{iACTUAL} = EMV_{iu} \left(\frac{1 - \text{Percent reduction}}{100\%} \right)$$

(1) The percent reduction for a control device shall be measured according to the procedures and test methods specified in § 63.565(c) of subpart Y. If testing is not feasible, the percentage of reduction shall be determined through a design evaluation according to the procedures specified in § 63.128(h) of subpart G.

(2) Procedures for calculating the percentage of reduction for pollution prevention measures are specified in paragraph (j) of this section.

(h) Credits are generated by the difference between emissions that are allowed for each Group 1 and Group 2 emission point and the actual emissions from a Group 1 or Group 2 emission

(5) Emissions from marine tank vessel loading shall be calculated as follows:

(i) The following equation shall be used for each marine tank vessel i to calculate EMV_{iu} :

$$EMV_{iu} = \sum_{i=1}^m (Q_i)(F_i)(P_i)$$

where:

EMV_{iu} =Uncontrolled marine tank vessel HAP emission rate from marine tank vessel i , megagrams per month.

Q_i =Quantity of commodity loaded (per vessel type), liters.

F_i =Emission factor, megagrams per liter.

P_i =Percent HAP.

m =Number of combinations of commodities and vessel types loaded.

Emission factors shall be based on test data or emission estimation procedures specified in § 63.565(l) of subpart Y.

(ii) The following procedures and equations shall be used to calculate $EMV_{iACTUAL}$:

(A) If the marine tank vessel is not controlled, $EMV_{iACTUAL} = EMV_{iu}$, where EMV_{iu} is calculated using the equations specified in paragraph (g)(5)(i) of this section.

(B) If the marine tank vessel is controlled using a control device or a pollution prevention measure achieving less than 97-percent reduction,

point that has been controlled after November 15, 1990 to a level more stringent than what is required by this subpart or any other State or Federal rule or statute. Credits shall be calculated as follows:

(1) The overall equation for calculating sourcewide credits is:

$$\begin{aligned} \text{Credits} = & D \sum_{i=1}^n ((0.02) EPV1_{iu} - EPV1_{iACTUAL}) + D \sum_{i=1}^m (EPV2_{iBASE} - EPV2_{iACTUAL}) + D \sum_{i=1}^n ((0.05) ES1_{iu} - ES1_{iACTUAL}) \\ & + D \sum_{i=1}^m (ES2_{iBASE} - ES2_{iACTUAL}) + D \sum_{i=1}^n (EGLR_{ic} - EGLR1_{iACTUAL}) + D \sum_{i=1}^m (EGLR2_{iBASE} - EGLR2_{iACTUAL}) \\ & + D \sum_{i=1}^n ((0.03) EMV1_{iu} - EMV1_{iACTUAL}) + D \sum_{i=1}^m (EMV2_{iBASE} - EMV2_{iACTUAL}) + D \sum_{i=1}^n (EWW1_{ic} - EWW1_{iACTUAL}) \\ & + D \sum_{i=1}^m (EWW2_{iBASE} - EWW2_{iACTUAL}) \end{aligned}$$

where:

Credits and all terms of the equation are in units of megagrams per month, the baseline date is November 15, 1990, and

D=Discount factor=0.9 for all credit-generating emission points except those controlled by a pollution prevention measure, which will not be discounted.

EPV1_{ACTUAL}=Emissions from each Group 1 miscellaneous process vent i that is controlled to a level more stringent than the reference control technology, calculated according to paragraph (h)(2) of this section.

(0.02) EPV1_{un}=Emissions from each Group 1 miscellaneous process vent i if the reference control technology had been applied to the uncontrolled emissions. EPV1_{un} is calculated according to paragraph (h)(2) of this section.

EPV2_{BASE}=Emissions from each Group 2 miscellaneous process vent; at the baseline date, as calculated in paragraph (h)(2) of this section.

EPV2_{ACTUAL}=Emissions from each Group 2 miscellaneous process vent that is controlled, calculated according to paragraph (h)(2) of this section.

ES1_{ACTUAL}=Emissions from each Group 1 storage vessel i that is controlled to a level more stringent than the reference control technology, calculated according to paragraph (h)(3) of this section.

(0.05) ES1_{un}=Emissions from each Group 1 storage vessel i if the reference control technology had been applied to the uncontrolled emissions. ES1_{un} is calculated according to paragraph (h)(3) of this section.

ES2_{ACTUAL}=Emissions from each Group 2 storage vessel i that is controlled, calculated according to paragraph (h)(3) of this section.

ES2_{BASE}=Emissions from each Group 2 storage vessel i at the baseline date, as calculated in paragraph (h)(3) of this section.

EGLR1_{ACTUAL}=Emissions from each Group 1 gasoline loading rack i that is controlled to a level more

stringent than the reference control technology, calculated according to paragraph (h)(4) of this section.

EGLR1_{un}=Emissions from each Group 1 gasoline loading rack i if the reference control technology had been applied to the uncontrolled emissions. EGLR1_{un} is calculated according to paragraph (h)(4) of this section.

EGLR2_{ACTUAL}=Emissions from each Group 2 gasoline loading rack i that is controlled, calculated according to paragraph (h)(4) of this section.

EGLR2_{BASE}=Emissions from each Group 2 gasoline loading rack i at the baseline date, as calculated in paragraph (h)(4) of this section.

EMV1_{ACTUAL}=Emissions from each Group 1 marine tank vessel i that is controlled to a level more stringent than the reference control technology, calculated according to paragraph (h)(4) of this section.

(0.03) EMV1_{un}=Emissions from each Group 1 marine tank vessel i if the reference control technology had been applied to the uncontrolled emissions. EMV1_{un} is calculated according to paragraph (h)(5) of this section.

EMV2_{ACTUAL}=Emissions from each Group 2 marine tank vessel i that is controlled, calculated according to paragraph (h)(5) of this section.

EMV2_{BASE}=Emissions from each Group 2 marine tank vessel i at the baseline date, as calculated in paragraph (h)(5) of this section.

EWV1_{ACTUAL}=Emissions from each Group 1 wastewater stream i that is controlled to a level more stringent than the reference control technology, calculated according to paragraph (h)(6) of this section.

EWV1_{un}=Emissions from each Group 1 wastewater stream i if the reference control technology had been applied to the uncontrolled emissions, calculated according to paragraph (h)(6) of this section.

EWV2_{ACTUAL}=Emissions from each Group 2 wastewater stream i that is controlled, calculated according to paragraph (h)(6) of this section.

EWV2_{BASE}=Emissions from each Group 2 wastewater stream i at the

baseline date, calculated according to paragraph (h)(6) of this section.

n=Number of Group 1 emission points included in the emissions average. The value of n is not necessarily the same for each kind of emission point.

m=Number of Group 2 emission points included in the emissions average. The value of m is not necessarily the same for each kind of emission point.

(i) For an emission point controlled using a reference control technology, the percentage of reduction for calculating credits shall be no greater than the nominal efficiency associated with the reference control technology, unless a higher nominal efficiency is assigned as specified in paragraph (h)(1)(ii) of this section.

(ii) For an emission point controlled to a level more stringent than the reference control technology, the nominal efficiency for calculating credits shall be assigned as described in paragraph (i) of this section. A reference control technology may be approved for use in a different manner and assigned a higher nominal efficiency according to the procedures in paragraph (i) of this section.

(iii) For an emission point controlled using a pollution prevention measure, the nominal efficiency for calculating credits shall be determined as described in paragraph (j) of this section.

(2) Emissions from process vents shall be determined as follows:

(i) Uncontrolled emissions from miscellaneous process vents, EPV1_{un}, shall be calculated according to the procedures and equation for EPV1_{un} in paragraphs (g)(2)(i) and (g)(2)(ii) of this section.

(ii) Actual emissions from miscellaneous process vents controlled using a technology with an approved nominal efficiency greater than 98 percent or a pollution prevention measure achieving greater than 98 percent emission reduction, EPV1_{ACTUAL}, shall be calculated according to the following equation:

$$EPV1_{ACTUAL} = EPV1_{un} \left(1 - \frac{\text{Nominal efficiency \%}}{100\%} \right)$$

(iii) The following procedures shall be used to calculate actual emissions from Group 2 process vents, EPV2_{ACTUAL}:

(A) For a Group 2 process vent controlled by a control device, a recovery device applied as a pollution prevention project, or a pollution

prevention measure, if the control achieves a percentage of reduction less than or equal to a 98 percent reduction,

$$EPV2_{\text{ACTUAL}} = EPV2_{\text{iu}} \times \left(1 - \frac{\text{Percent reduction}}{100\%} \right)$$

(1) $EPV2_{\text{iu}}$ shall be calculated according to the equations and procedures for EPV_{iu} in paragraphs (g)(2)(i) and (g)(2)(ii) of this section except as provided in paragraph (h)(2)(iii)(A)(3) of this section.

(2) The percentage of reduction shall be calculated according to the procedures in paragraphs (g)(2)(iii)(B)(1) through (g)(2)(iii)(B)(3) of this section except as provided in paragraph (h)(2)(iii)(A)(4) of this section.

(3) If a recovery device was added as part of a pollution prevention project, $EPV2_{\text{iu}}$ shall be calculated prior to that recovery device. The equation for EPV_{iu} in paragraph (g)(2)(ii) of this section shall be used to calculate $EPV2_{\text{iu}}$; however, the sampling site for measurement of vent stream flow rate and organic HAP concentration shall be at the inlet of the recovery device.

(4) If a recovery device was added as part of a pollution prevention project,

the percentage of reduction shall be demonstrated by conducting a performance test at the inlet and outlet of that recovery device.

(B) For a Group 2 process vent controlled using a technology with an approved nominal efficiency greater than a 98 percent or a pollution prevention measure achieving greater than 98 percent reduction,

$$EPV2_{\text{ACTUAL}} = EPV2_{\text{iu}} \left(1 - \frac{\text{Nominal efficiency}\%}{100\%} \right)$$

(iv) Emissions from Group 2 process vents at baseline, $EPV2_{\text{BASE}}$, shall be calculated as follows:

(A) If the process vent was uncontrolled on November 15, 1990, $EPV2_{\text{BASE}} = EPV2_{\text{iu}}$, and shall be calculated according to the procedures

and equation for EPV_{iu} in paragraphs (g)(2)(i) and (g)(2)(ii) of this section.

(B) If the process vent was controlled on November 15, 1990,

$$EPV2_{\text{BASE}} = EPV2_{\text{iu}} \left(1 - \frac{\text{Percent reduction}\%}{100\%} \right)$$

where $EPV2_{\text{iu}}$ is calculated according to the procedures and equation for EPV_{iu} in paragraphs (g)(2)(i) and (g)(2)(ii) of this section. The percentage of reduction shall be calculated according to the procedures specified in paragraphs (g)(2)(iii)(B)(1) through (g)(2)(iii)(B)(3) of this section.

(C) If a recovery device was added to a process vent as part of a pollution prevention project initiated after November 15, 1990, $EPV2_{\text{BASE}} = EPV2_{\text{iu}}$, where $EPV2_{\text{iu}}$ is calculated according to paragraph (h)(2)(iii)(A)(3) of this section.

(3) Emissions from storage vessels shall be determined as specified in

§ 63.150(h)(3) of subpart G, except as follows:

(i) All references to § 63.119(b) in § 63.150(h)(3) of subpart G shall be replaced with: § 63.119(b) or § 63.119(b) except for § 63.119(b)(5) and (b)(6).

(ii) All references to § 63.119(c) in § 63.150(h)(3) of subpart G shall be replaced with: § 63.119(c) or § 63.119(c) except for § 63.119(c)(2).

(iii) All references to § 63.119(d) in § 63.150(h)(3) of subpart G shall be replaced with: § 63.119(d) or § 63.119(d) except for § 63.119(d)(2).

(4) Emissions from gasoline loading racks shall be determined as follows:

(i) Uncontrolled emissions from Group 1 gasoline loading racks,

$EGLR1_{\text{iu}}$, shall be calculated according to the procedures and equations for $EGLR_{\text{iu}}$ as described in paragraphs (g)(4)(i) through (g)(4)(iv) of this section.

(ii) Emissions from Group 1 gasoline loading racks if the reference control technology had been applied, $EGLR_{\text{ic}}$, shall be calculated according to the procedures and equations in paragraph (g)(4)(v) of this section.

(iii) Actual emissions from Group 1 gasoline loading racks controlled to less than 10 milligrams of TOC per liter of gasoline loaded; $EGLR_{\text{ACTUAL}}$, shall be calculated according to the following equation:

$$EGLR1_{\text{ACTUAL}} = EGLR1_{\text{iu}} \left(1 - \frac{\text{Nominal efficiency}\%}{100\%} \right)$$

(iv) The following procedures shall be used to calculate actual emissions from Group 2 gasoline loading racks, $EGLR2_{\text{ACTUAL}}$:

(A) For a Group 2 gasoline loading rack controlled by a control device or a pollution prevention measure achieving emissions reduction but where

emissions are greater than the 10 milligrams of TOC per liter of gasoline loaded requirement,

$$EGLR2_{\text{ACTUAL}} = EGLR2_{\text{iu}} \left(1 - \frac{\text{Percent reduction}}{100\%} \right)$$

(1) EGLR_{2iu} shall be calculated according to the equations and procedures for EGLR_{iu} in paragraphs (g)(4)(i) through (g)(4)(iv) of this section.
 (2) The percentage of reduction shall be calculated according to the

procedures in paragraphs (g)(4)(vi)(B)(1) and (g)(4)(vi)(B)(2) of this section.

(B) For a Group 2 gasoline loading rack controlled by using a technology with an approved nominal efficiency greater than 98 percent or a pollution

prevention measure achieving greater than a 98-percent reduction,

$$EGLR_{2iACTUAL} = EGLR_{2iu} \left(1 - \frac{\text{Nominal efficiency}}{100\%} \right)$$

(v) Emissions from Group 2 gasoline loading racks at baseline, EGLR_{2iBASE}, shall be calculated as follows:

(A) If the gasoline loading rack was uncontrolled on November 15, 1990, EGLR_{2iBASE}=EGLR_{2iu}, and shall be calculated according to the procedures

and equations for EGLR_{iu} in paragraphs (g)(4)(i) through (g)(4)(iv) of this section.

(B) If the gasoline loading rack was controlled on November 15, 1990,

$$EGLR_{2iBASE} = EGLR_{2iu} \left(1 - \frac{\text{Percent reduction}}{100\%} \right)$$

where EGLR_{2iu} is calculated according to the procedures and equations for EGLR_{iu} in paragraphs (g)(4)(i) through (g)(4)(iv) of this section. Percentage of reduction shall be calculated according to the procedures in paragraphs (g)(4)(vi)(B)(1) and (g)(4)(vi)(B)(2) of this section.

(5) Emissions from marine tank vessels shall be determined as follows:

(i) Uncontrolled emissions from Group 1 marine tank vessels, EMV_{1iu}, shall be calculated according to the procedures and equations for EMV_{iu} as described in paragraph (g)(5)(i) of this section.

(ii) Actual emissions from Group 1 marine tank vessels controlled using a technology or pollution prevention measure with an approved nominal efficiency greater than 97 percent, EMV_{1iACTUAL}, shall be calculated according to the following equation:

$$EMV_{1iACTUAL} = EMV_{1iu} \left(1 - \frac{\text{Nominal efficiency}}{100\%} \right)$$

(iii) The following procedures shall be used to calculate actual emissions from

Group 2 marine tank vessels,

EMV_{2iACTUAL}:

(A) For a Group 2 marine tank vessel controlled by a control device or a

pollution prevention measure achieving a percentage of reduction less than or equal to 97 percent reduction,

$$EMV_{2iACTUAL} = EMV_{2iu} \left(1 - \frac{\text{Percent reduction}}{100\%} \right)$$

(1) EMV_{2iu} shall be calculated according to the equations and procedures for EMV_{iu} in paragraph (g)(5)(i) of this section.

(2) The percentage of reduction shall be calculated according to the procedures in paragraphs (g)(5)(ii)(B)(1) and (g)(5)(ii)(B)(2) of this section.

(B) For a Group 2 marine tank vessel controlled using a technology or a pollution prevention measure with an approved nominal efficiency greater than 97 percent,

$$EMV_{2iACTUAL} = EMV_{2iu} \left(1 - \frac{\text{Nominal efficiency}}{100\%} \right)$$

(iv) Emissions from Group 2 marine tank vessels at baseline, EMV_{2iBASE}, shall be calculated as follows:

(A) If the marine terminal was uncontrolled on November 15, 1990, EMV_{2iBASE} equals EMV_{2iu}, and shall be calculated according to the procedures

and equations for EMV_{iu} in paragraph (g)(5)(i) of this section.

(B) If the marine tank vessel was controlled on November 15, 1990,

$$EMV2_{BASE} = EMV2_{iu} \left(1 - \frac{\text{Percent reduction}}{100\%} \right)$$

where $EMV2_{iu}$ is calculated according to the procedures and equations for EMV_{iu} in paragraph (g)(5)(i) of this section. Percentage of reduction shall be calculated according to the procedures in paragraphs (g)(5)(ii)(B)(1) and (g)(5)(ii)(B)(2) of this section.

(5) Emissions from wastewater shall be determined as follows:

(i) For purposes of paragraphs (h)(4)(ii) through (h)(4)(vi) of this section, the following terms will have the meaning given them in paragraphs

(h)(6)(i)(A) through (h)(6)(i)(C) of this section.

(A) *Correctly suppressed* means that a wastewater stream is being managed according to the requirements of §§ 61.343 through 61.347 or § 61.342(c)(1)(iii) of 40 CFR part 61, subpart FF, as applicable, and the emissions from the waste management units subject to those requirements are routed to a control device that reduces HAP emissions by 95 percent or greater.

(B) *Treatment process* has the meaning given in § 61.341 of 40 CFR part 61, subpart FF except that it does not include biological treatment units.

(C) *Vapor control device* means the control device that receives emissions vented from a treatment process or treatment processes.

(ii) The following equation shall be used for each wastewater stream i to calculate EWV_{ic} :

$$EWV_{ic} = (6.0 \times 10^{-8}) Q_i H_i \sum_{m=1}^s (1 - Fr_m) Fe_m HAP_{im} + (0.05) (6.0 \times 10^{-8}) Q_i H_i \sum_{m=1}^s (Fr_m HAP_{im})$$

where:

EWV_{ic} = Monthly wastewater stream emission rate if wastewater stream i were controlled by the reference control technology, megagrams per month.

Q_i = Average flow rate for wastewater stream i , liters per minute.

H_i = Number of hours during the month that wastewater stream i was generated, hours per month.

Fr_m = Fraction removed of organic HAP m in wastewater, from table 7 of this subpart, dimensionless.

Fe_m = Fraction emitted of organic HAP m in wastewater from table 7 of this subpart, dimensionless.

s = Total number of organic HAP's in wastewater stream i .

HAP_{im} = Average concentration of organic HAP m in wastewater stream i , parts per million by weight.

(A) HAP_{im} shall be determined for the point of generation or at a location downstream of the point of generation. Wastewater samples shall be collected using the sampling procedures specified in Method 25D of 40 CFR part 60, appendix A. Where feasible, samples shall be taken from an enclosed pipe

prior to the wastewater being exposed to the atmosphere. When sampling from an enclosed pipe is not feasible, a minimum of three representative samples shall be collected in a manner to minimize exposure of the sample to the atmosphere and loss of organic HAP's prior to sampling. The samples collected may be analyzed by either of the following procedures:

(1) A test method or results from a test method that measures organic HAP concentrations in the wastewater, and that has been validated pursuant to section 5.1 or 5.3 of Method 301 of appendix A of this part may be used; or

(2) Method 305 of appendix A of this part may be used to determine C_{im} , the average volatile organic HAP concentration of organic HAP m in wastewater stream i , and then HAP_{im} may be calculated using the following equation: $HAP_{im} = C_{im} / Fm_m$, where Fm_m for organic HAP m is obtained from table 7 of this subpart.

(B) Values for Q_i , HAP_{im} , and C_{im} shall be determined during a performance test conducted under representative conditions. The average value obtained from three test runs shall be used. The values of Q_i , HAP_{im} , and C_{im} shall be

established in the Notification of Compliance Status report and must be updated as provided in paragraph (h)(6)(i)(C) of this section.

(C) If there is a change to the process or operation such that the previously measured values of Q_i , HAP_{im} , and C_{im} are no longer representative, a new performance test shall be conducted to determine new representative values of Q_i , HAP_{im} , and C_{im} . These new values shall be used to calculate debits and credits from the time of the change forward, and the new values shall be reported in the next Periodic Report.

(iii) The following equations shall be used to calculate $EWV1_{ACTUAL}$ for each Group 1 wastewater stream i that is correctly suppressed and is treated to a level more stringent than the reference control technology.

(A) If the Group 1 wastewater stream i is controlled using a treatment process or series of treatment processes with an approved nominal reduction efficiency for an individually specified HAP that is greater than that specified in table 7 of this subpart, and the vapor control device achieves a percentage of reduction equal to 95 percent, the following equation shall be used:

$$EWV1_{ACTUAL} = (6.0 \times 10^{-8}) Q_i H_i \sum_{m=1}^s [Fe_m HAP_{im} (1 - PR_{im})] + 0.05 (6.0 \times 10^{-8}) Q_i H_i \sum_{m=1}^s [HAP_{im} PR_{im}]$$

Where:

$EWV1_{ACTUAL}$ = Monthly wastewater stream emission rate if wastewater stream i is treated to a level more

stringent than the reference control technology, megagrams per month.
 PR_{im} = The efficiency of the treatment process, or series of treatment processes, that treat wastewater

stream i in reducing the emission potential of organic HAP m in wastewater, dimensionless, as calculated by:

$$PR_{im} = \frac{HAP_{im-in} - HAP_{im-out}}{HAP_{im-in}}$$

Where:

HAP_{im-in} = Average concentration of organic HAP m , parts per million by weight, as defined and determined according to paragraph (h)(6)(ii)(A) of this section, in the wastewater entering the first treatment process in the series.

HAP_{im-out} = Average concentration of organic HAP m , parts per million by

weight, as defined and determined according to paragraph (h)(6)(ii)(A) of this section, in the wastewater exiting the last treatment process in the series.

All other terms are as defined and determined in paragraph (h)(6)(ii) of this section.

(B) If the Group 1 wastewater stream i is not controlled using a treatment

process or series of treatment processes with an approved nominal reduction efficiency for an individually specified HAP that is greater than that specified in table 7 of this subpart, but the vapor control device has an approved nominal efficiency greater than 95 percent, the following equation shall be used:

$$EWW1_{ACTUAL} = (6.0 \times 10^{-8}) Q_i H_i \sum_{m=1}^s [Fe_m HAP_{im} (1 - A_m)] + \left(1 - \frac{\text{Nominal efficiency \%}}{100}\right) (6.0 \times 10^{-8}) Q_i H_i \sum_{m=1}^s [HAP_{im} A_m]$$

Where:

Nominal efficiency = Approved reduction efficiency of the vapor control device, dimensionless, as determined according to the procedures in § 63.652(i).

A_m = The efficiency of the treatment process, or series of treatment processes, that treat wastewater stream i in reducing the emission potential of organic HAP m in wastewater, dimensionless.

All other terms are as defined and determined in paragraphs (h)(6)(ii) and (h)(6)(iii)(A) of this section.

(1) If a steam stripper meeting the specifications in the definition of

reference control technology for wastewater is used, A_m shall be equal to the value of Fr_m given in table 7 of this subpart.

(2) If an alternative control device is used, the percentage of reduction must be determined using the equation and methods specified in paragraph (h)(6)(iii)(A) of this section for determining PR_{im} . If the value of PR_{im} is greater than or equal to the value of Fr_m given in table 7 of this subpart, then A_m equals Fr_m unless a higher nominal efficiency has been approved. If a higher nominal efficiency has been approved for the treatment process, the owner or operator shall determine $EWW1_{ACTUAL}$ according to paragraph (h)(6)(iii)(B) of

this section rather than paragraph (h)(6)(iii)(A) of this section. If PR_{im} is less than the value of Fr_m given in table 7 of this subpart, emissions averaging shall not be used for this emission point.

(C) If the Group 1 wastewater stream i is controlled using a treatment process or series of treatment processes with an approved nominal reduction efficiency for an individually specified hazardous air pollutant that is greater than that specified in table 7 of this subpart, and the vapor control device has an approved nominal efficiency greater than 95 percent, the following equation shall be used:

$$EWW1_{ACTUAL} = (6.0 \times 10^{-8}) Q_i H_i \sum_{m=1}^s [Fe_m HAP_{im} (1 - PR_{im})] + \left(1 - \frac{\text{Nominal efficiency \%}}{100}\right) (6.0 \times 10^{-8}) Q_i H_i \sum_{m=1}^s [HAP_{im} PR_{im}]$$

where all terms are as defined and determined in paragraphs (h)(6)(ii) and (h)(6)(iii)(A) of this section.

(iv) The following equation shall be used to calculate $EWW2_{BASE}$ for each Group 2 wastewater stream i that on

November 15, 1990 was not correctly suppressed or was correctly suppressed but not treated:

$$EWW2_{BASE} = (6.0 \times 10^{-8}) Q_i H_i \sum_{m=1}^s Fe_m HAP_{im}$$

Where:

$EWW2_{BASE}$ = Monthly wastewater stream emission rate if wastewater stream i is not correctly suppressed, megagrams per month.

Q_i , H_i , s , Fe_m , and HAP_{im} are as defined and determined according to paragraphs

(h)(6)(ii) and (h)(6)(iii)(A) of this section.

(v) The following equation shall be used to calculate $EWW2_{BASE}$ for each Group 2 wastewater stream i on November 15, 1990 was correctly suppressed. $EWW2_{BASE}$ shall be calculated as if the control methods

being used on November 15, 1990 are in place and any control methods applied after November 15, 1990 are ignored. However, values for the parameters in the equation shall be representative of present production levels and stream properties.

$$EWW2_{iBASE} = (6.0 \times 10^{-3}) Q_i H_i \sum_{m=1}^5 [Fe_m HAP_{im} (1 - PR_{im})] + \left(1 - \frac{R_i}{100\%}\right) (6.0 \times 10^{-3}) Q_i H_i \sum_{m=1}^5 [HAP_{im} PR_{im}]$$

where R_i is calculated according to paragraph (b)(6)(vii) of this section and all other terms are as defined and determined according to paragraphs (h)(6)(ii) and (h)(6)(iii)(A) of this section.

(vi) For Group 2 wastewater streams that are correctly suppressed, $EWW2_{iACTUAL}$ shall be calculated according to the equation for $EWW2_{iBASE}$ in paragraph (b)(6)(v) of this section. $EWW2_{iACTUAL}$ shall be calculated with all control methods in place accounted for.

(vii) The reduction efficiency, R_i , of the vapor control device shall be

demonstrated according to the following procedures:

(A) Sampling sites shall be selected using Method 1 or 1A of 40 CFR part 60, appendix A, as appropriate.

(B) The mass flow rate of organic compounds entering and exiting the control device shall be determined as follows:

(1) The time period for the test shall not be less than 3 hours during which at least three runs are conducted.

(2) A run shall consist of a 1-hour period during the test. For each run:

(i) The volume exhausted shall be determined using Methods 2, 2A, 2C, or

2D of 40 CFR part 60 appendix A, as appropriate;

(ii) The organic concentration in the vent stream entering and exiting the control device shall be determined using Method 18 of 40 CFR part 60, appendix A. Alternatively, any other test method validated according to the procedures in Method 301 of appendix A of this part may be used.

(3) The mass flow rate of organic compounds entering and exiting the control device during each run shall be calculated as follows:

$$E_a = \frac{0.0416}{10^6 \times m} \left[\sum_{p=1}^m V_{ap} \left(\sum_{i=1}^n C_{aip} MW_i \right) \right]$$

$$E_b = \frac{0.0416}{10^6 \times m} \left[\sum_{p=1}^m V_{bp} \left(\sum_{i=1}^n C_{bip} MW_i \right) \right]$$

Where:

E_a = Mass flow rate of organic compounds exiting the control device, kilograms per hour.

E_b = Mass flow rate of organic compounds entering the control device, kilograms per hour.

V_{ap} = Average volumetric flow rate of vent stream exiting the control device during run p at standard conditions, cubic meters per hour.

V_{bp} = Average volumetric flow rate of vent stream entering the control device during run p at standard conditions, cubic meters per hour.

p = Run.

m = Number of runs.

C_{aip} = Concentration of organic compound i measured in the vent stream exiting the control device during run p as determined by Method 18 of 40 CFR part 60 appendix A, parts per million by volume on a dry basis.

C_{bip} = Concentration of organic compound i measured in the vent stream entering the control device during run p as determined by Method 18 of 40 CFR part 60, appendix A, parts per million by volume on a dry basis.

MW_i = Molecular weight of organic compound i in the vent stream, kilograms per kilogram-mole.

n = Number of organic compounds in the vent stream.

0.0416 = Conversion factor for molar volume, kilograms-mole per cubic meter at 293 kelvin and 760 millimeters mercury absolute.

(C) The organic reduction efficiency for the control device shall be calculated as follows:

$$R = \frac{E_b - E_a}{E_b} \times 100$$

Where:

R = Total organic reduction efficiency for the control device, percentage.

E_b = Mass flow rate of organic compounds entering the control device, kilograms per hour.

E_a = Mass flow rate of organic compounds exiting the control device, kilograms per hour.

(i) The following procedures shall be followed to establish nominal efficiencies. The procedures in paragraphs (i)(1) through (i)(6) of this section shall be followed for control technologies that are different in use or design from the reference control technologies and achieve greater percentages of reduction than the percentages of efficiency assigned to the reference control technologies in § 63.641.

(1) In those cases where the owner or operator is seeking permission to take credit for use of a control technology

that is different in use or design from the reference control technology, and the different control technology will be used in more than three applications at a single plant site, the owner or operator shall submit the information specified in paragraphs (i)(1)(i) through (i)(1)(iv) of this section to the Administrator in writing:

(i) Emission stream characteristics of each emission point to which the control technology is or will be applied including the kind of emission point, flow, organic HAP concentration, and all other stream characteristics necessary to design the control technology or determine its performance;

(ii) Description of the control technology including design specifications;

(iii) Documentation demonstrating to the Administrator's satisfaction the control efficiency of the control technology. This may include performance test data collected using an appropriate EPA method or any other method validated according to Method 301 of appendix A of this part. If it is infeasible to obtain test data, documentation may include a design evaluation and calculations. The engineering basis of the calculation procedures and all inputs and

assumptions made in the calculations shall be documented; and

(iv) A description of the parameter or parameters to be monitored to ensure that the control technology will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) The Administrator shall determine within 120 calendar days whether an application presents sufficient information to determine nominal efficiency. The Administrator reserves the right to request specific data in addition to the items listed in paragraph (i)(1) of this section.

(3) The Administrator shall determine within 120 calendar days of the submittal of sufficient data whether a control technology shall have a nominal efficiency and the level of that nominal efficiency. If, in the Administrator's judgment, the control technology achieves a level of emission reduction greater than the reference control technology for a particular kind of emission point, the Administrator will publish a Federal Register notice establishing a nominal efficiency for the control technology.

(4) The Administrator may grant conditional permission to take emission credits for use of the control technology on requirements that may be necessary to ensure operation and maintenance to achieve the specified nominal efficiency.

(5) In those cases where the owner or operator is seeking permission to take credit for use of a control technology that is different in use or design from the reference control technology and the different control technology will be used in no more than three applications at a single plant site, the information

listed in paragraphs (i)(1)(i) through (i)(1)(iv) of this section can be submitted to the permitting authority for the source for approval instead of the Administrator.

(i) In these instances, use and conditions for use of the control technology can be approved by the permitting authority. The permitting authority shall follow the procedures specified in paragraphs (i)(2) through (i)(4) of this section except that, in these instances, a Federal Register notice is not required to establish the nominal efficiency for the different technology.

(ii) If, in reviewing the submittal, the permitting authority believes the control technology has broad applicability for use by other sources, the permitting authority shall submit the information provided in the application to the Director of the EPA Office of Air Quality Planning and Standards. The Administrator shall review the technology for broad applicability and may publish a Federal Register notice; however, this review shall not affect the permitting authority's approval of the nominal efficiency of the control technology for the specific application.

(6) If, in reviewing an application for a control technology for an emission point, the Administrator or permitting authority determines the control technology is not different in use or design from the reference control technology, the Administrator or permitting authority shall deny the application.

(j) The following procedures shall be used for calculating the efficiency (percentage of reduction) of pollution prevention measures:

(1) A pollution prevention measure is any practice that meets the criteria of

paragraphs (j)(1)(i) and (j)(1)(ii) of this section.

(i) A pollution prevention measure is any practice that results in a lesser quantity of organic HAP emissions per unit of product released to the atmosphere prior to out-of-process recycling, treatment, or control of emissions while the same product is produced.

(ii) Pollution prevention measures may include: Substitution of feedstocks that reduce HAP emissions, alterations to the production process to reduce the volume of materials released to the environment, equipment modifications; housekeeping measures, and in-process recycling that returns waste materials directly to production as raw materials. Production cutbacks do not qualify as pollution prevention.

(2) The emission reduction efficiency of pollution prevention measures implemented after November 15, 1990 can be used in calculating the actual emissions from an emission point in the debit and credit equations in paragraphs (g) and (h) of this section.

(i) For pollution prevention measures, the percentage of reduction used in the equations in paragraphs (g)(2) and (g)(3) of this section and paragraphs (h)(2) through (h)(4) of this section is the difference in percentage between the monthly organic HAP emissions for each emission point after the pollution prevention measure for the most recent month versus monthly emissions from the same emission point before the pollution prevention measure, adjusted by the volume of product produced during the two monthly periods.

(ii) The following equation shall be used to calculate the percentage of reduction of a pollution prevention measure for each emission point.

$$\text{Percent reduction} = \frac{E_B \left(\frac{E_{PP} \times P_B}{P_{PP}} \right)}{E_B} \times 100\%$$

Where:

Percent reduction=Efficiency of pollution prevention measure (percentage of organic HAP reduction).

E_B =Monthly emissions before the pollution prevention measure, megagrams per month, determined as specified in paragraphs (j)(2)(ii)(A), (j)(2)(ii)(B), and (j)(2)(ii)(C) of this section.

E_{PP} =Monthly emissions after the pollution prevention measure,

megagrams per month, as determined for the most recent month, determined as specified in paragraphs (j)(2)(ii)(D) or (j)(2)(ii)(E) of this section.

P_B =Monthly production before the pollution prevention measure, megagrams per month, during the same period over which E_B is calculated.

P_{PP} =Monthly production after the pollution prevention measure, megagrams per month, as

determined for the most recent month.

(A) The monthly emissions before the pollution prevention measure, E_B , shall be determined in a manner consistent with the equations and procedures in paragraphs (g)(2), (g)(3), (g)(4), and (g)(5) of this section for miscellaneous process vents, storage vessels, gasoline loading racks, and marine tank vessels.

(B) For wastewater, E_B shall be calculated as follows:

$$E_B = \sum_{i=1}^n \left[(6.0 \cdot 10^{-8}) Q_{Bi} H_{Bi} \sum_{m=1}^s Fe_m HAP_{Bim} \right]$$

where:

n = Number of wastewater streams.

Q_{Bi} = Average flow rate for wastewater stream i before the pollution prevention measure, liters per minute.

H_{Bi} = Number of hours per month that wastewater stream i was discharged before the pollution prevention measure, hours per month.

s = Total number of organic HAP's in wastewater stream i .

Fe_m = Fraction emitted of organic HAP m in wastewater from table 7 of this subpart, dimensionless.

HAP_{Bim} = Average concentration of organic HAP m in wastewater stream i , defined and determined according to paragraph (h)(6)(ii)(A)(2) of this section, before the pollution prevention measure, parts per million by weight, as measured before the implementation of the pollution measure.

(C) If the pollution prevention measure was implemented prior to July 14, 1994, records may be used to determine E_B .

(D) The monthly emissions after the pollution prevention measure, E_{pp} , may be determined during a performance test or by a design evaluation and documented engineering calculations. Once an emissions-to-production ratio has been established, the ratio can be used to estimate monthly emissions from monthly production records.

(E) For wastewater, E_{pp} shall be calculated using the following equation:

$$E_{pp} = \sum_{i=1}^n \left[(6.0 \cdot 10^{-8}) Q_{ppi} H_{ppi} \sum_{m=1}^s Fe_m HAP_{ppim} \right]$$

where n , Q , H , s , Fe_m , and HAP are defined and determined as described in paragraph (j)(2)(ii)(B) of this section except that Q_{ppi} , H_{ppi} , and HAP_{ppim} shall be determined after the pollution prevention measure has been implemented.

(iii) All equations, calculations, test procedures, test results, and other information used to determine the percentage of reduction achieved by a pollution prevention measure for each emission point shall be fully documented.

(iv) The same pollution prevention measure may reduce emissions from multiple emission points. In such cases, the percentage of reduction in emissions for each emission point must be calculated.

(v) For the purposes of the equations in paragraphs (h)(2) through (h)(6) of this section used to calculate credits for emission points controlled more stringently than the reference control technology, the nominal efficiency of a pollution prevention measure is equivalent to the percentage of reduction of the pollution prevention measure. When a pollution prevention measure is used, the owner or operator of a source is not required to apply to the Administrator for a nominal efficiency and is not subject to paragraph (i) of this section.

(k) The owner or operator shall demonstrate that the emissions from the emission points proposed to be included in the average will not result in greater hazard or, at the option of the State or local permitting authority,

greater risk to human health or the environment than if the emission points were controlled according to the provisions in §§ 63.643 through 63.647, and §§ 63.650 and 63.651.

(1) This demonstration of hazard or risk equivalency shall be made to the satisfaction of the State or local permitting authority.

(i) The State or local permitting authority may require owners and operators to use specific methodologies and procedures for making a hazard or risk determination.

(ii) The demonstration and approval of hazard or risk equivalency may be made according to any guidance that the EPA makes available for use.

(2) Owners and operators shall provide documentation demonstrating the hazard or risk equivalency of their proposed emissions average in their Implementation Plan.

(3) An emissions averaging plan that does not demonstrate an equivalent or lower hazard or risk to the satisfaction of the State or local permitting authority shall not be approved. The State or local permitting authority may require such adjustments to the emissions averaging plan as are necessary in order to ensure that the average will not result in greater hazard or risk to human health or the environment than would result if the emission points were controlled according to §§ 63.643 through 63.647, and §§ 63.650 and 63.651.

(4) A hazard or risk equivalency demonstration shall:

(i) Be a quantitative, bona fide chemical hazard or risk assessment;

(ii) Account for differences in chemical hazard or risk to human health or the environment; and

(iii) Meet any requirements set by the State or local permitting authority for such demonstrations.

(1) For periods of excess emissions, an owner or operator may request that the provisions of paragraphs (1)(1) through (1)(4) of this section be followed instead of the procedures in paragraphs (f)(3)(i) and (f)(3)(ii) of this section.

(1) The owner or operator shall notify the Administrator of excess emissions in the Periodic Reports as required in § 63.654(g)(6).

(2) The owner or operator shall demonstrate that other types of monitoring data or engineering calculations are appropriate to establish that the control device for the emission point was operating in such a fashion to warrant assigning full or partial credits and debits. This demonstration shall be made to the Administrator's satisfaction, and the Administrator may establish procedures for demonstrating compliance that are acceptable.

(3) The owner or operator shall provide documentation of the period of excess emissions and the other type of monitoring data or engineering calculations to be used to demonstrate that the control device for the emission point was operating in such a fashion to warrant assigning full or partial credits and debits.

(4) The Administrator may assign full or partial credit and debits upon review of the information provided.

§ 63.653 Monitoring, recordkeeping, and implementation plan for emission averaging.

(a) For each emission point included in an emissions average, the owner or operator shall perform testing, monitoring, recordkeeping, and reporting equivalent to that required for Group 1 emission points complying with §§ 63.643 through 63.647, and §§ 63.650 and 63.651. The specific requirements for miscellaneous process vents, storage vessels, wastewater, gasoline loading racks, and marine tank vessels are identified in paragraphs (a)(1) through (a)(7) of this section.

(1) The source shall implement the following testing, monitoring, recordkeeping, and reporting procedures for each miscellaneous process vent equipped with a flare, incinerator, boiler, or process heater:

(i) Conduct initial performance tests to determine the percentage of reduction as specified in § 63.645 of this subpart and § 63.116 of subpart G; and

(ii) Monitor the operating parameters specified in § 63.644, as appropriate for the specific control device.

(2) The source shall implement the following procedures for each miscellaneous process vent, equipped with a carbon adsorber, absorber, or condenser but not equipped with a control device:

(i) Determine the flow rate and organic HAP concentration using the methods specified in § 63.115 (a)(1) and (a)(2), § 63.115 (b)(1) and (b)(2), and § 63.115(c)(3) of subpart G; and

(ii) Monitor the operating parameters specified in § 63.114 of subpart G, as appropriate for the specific recovery device.

(3) The source shall implement the following procedures for each storage vessel controlled with an internal floating roof, external roof, or a closed vent system with a control device, as appropriate to the control technique:

(i) Perform the monitoring or inspection procedures in § 63.646 of this subpart and § 63.120 of subpart G; and

(ii) For closed vent systems with control devices, conduct an initial design evaluation as specified in § 63.646 of this subpart and § 63.120(d) of subpart G.

(4) For each gasoline loading rack that is controlled, perform the testing and monitoring procedures specified in §§ 63.425 and 63.427 of subpart R of this part.

(5) For each marine tank vessel that is controlled, perform the compliance, monitoring, and performance testing, procedures specified in §§ 63.563, 63.564, and 63.565 of subpart Y of this part.

(6) The source shall implement the following procedures for wastewater emission points, as appropriate to the control techniques:

(i) For wastewater treatment processes, conduct tests as specified in § 61.355 of subpart FF of part 60;

(ii) Conduct inspections and monitoring as specified in §§ 61.343 through 61.349 and § 61.354 of 40 CFR part 61, subpart FF.

(7) If an emission point in an emissions average is controlled using a pollution prevention measure or a device or technique for which no monitoring parameters or inspection procedures are specified in §§ 63.643 through 63.647 and §§ 63.650 and 63.651, the owner or operator shall establish a site-specific monitoring parameter and shall submit the information specified in § 63.654(h)(4) in the implementation plan.

(b) Records of all information required to calculate emission debits and credits and records required by § 63.654 shall be retained for 5 years.

(c) Notifications of Compliance Status report, Periodic Reports, and other reports shall be submitted as required by § 63.654.

(d) Each owner or operator of an existing source who elects to comply with § 63.654 (g) and (h) by using emissions averaging for any emission points shall submit an Implementation Plan.

(1) The Implementation Plan shall be submitted no later than 18 months prior to the compliance date in § 63.640(h). This information may be submitted in an operating permit application, in an amendment to an operating permit application, in a separate submittal, or in any combination of the three. If an owner or operator submits the information specified in paragraph (d)(2) of this section at different times, and/or in different submittals, later submittals may refer to earlier submittals instead of duplicating the previously submitted information.

(2) The Implementation Plan shall include the information specified in paragraphs (d)(2)(i) through (d)(2)(ix) of this section for all points included in the average.

(i) The identification of all emission points in the planned emissions average and notation of whether each emission point is a Group 1 or Group 2 emission point as defined in § 63.641.

(ii) The projected annual emission debits and credits for each emission point and the sum for the emission points involved in the average calculated according to § 63.652. The annual projected credits must be greater

than the projected debits, as required under § 63.652(e)(3).

(iii) The specific control technology or pollution prevention measure that will be used for each emission point included in the average and date of application or expected date of application.

(iv) The specific identification of each emission point affected by a pollution prevention measure. To be considered a pollution prevention measure, the criteria in § 63.652(j)(1) must be met. If the same pollution prevention measure reduces or eliminates emissions from multiple emission points in the average, the owner or operator must identify each of these emission points.

(v) A statement that the compliance demonstration, monitoring, inspection, recordkeeping, and reporting provisions in paragraphs (a), (b), and (c) of this section that are applicable to each emission point in the emissions average will be implemented beginning on the date of compliance.

(vi) Documentation of the information listed in paragraphs (d)(2)(vi)(A) through (d)(2)(vi)(D) of this section for each emission point included in the average.

(A) The values of the parameters used to determine whether each emission point in the emissions average is Group 1 or Group 2.

(B) The estimated values of all parameters needed for input to the emission debit and credit calculations in § 63.652 (g) and (h). These parameter values or, as appropriate, limited ranges for the parameter values, shall be specified in the source's Implementation Plan as enforceable operating conditions. Changes to these parameters must be reported in the next Periodic Report.

(C) The estimated percentage of reduction if a control technology achieving a lower percentage of reduction than the efficiency of the reference control technology, as defined in § 63.641, is or will be applied to the emission point.

(D) The anticipated nominal efficiency if a control technology achieving a greater percentage emission reduction than the efficiency of the reference control technology is or will be applied to the emission point. The procedures in § 63.652(i) shall be followed to apply for a nominal efficiency.

(vii) The information specified in § 63.654(h)(4) for:

(A) Each miscellaneous process vent controlled by a pollution prevention measure or control technique for which monitoring parameters or inspection procedures are not specified in

paragraphs (a)(1) or (a)(2) of this section; and

(B) Each storage vessel controlled by a pollution prevention measure or a control technique other than an internal or external floating roof or a closed vent system with a control device.

(viii) Documentation of the information listed in paragraphs (d)(2)(viii)(A) through (d)(2)(viii)(G) of this section for each process wastewater stream included in the average.

(A) The information used to determine whether the wastewater stream is a Group 1 or Group 2 wastewater stream.

(B) The estimated values of all parameters needed for input to the wastewater emission credit and debit calculations in § 63.652(h)(6).

(C) The estimated percentage of reduction if the wastewater stream is or will be controlled using a treatment process or series of treatment processes that achieves an emission reduction less than or equal to the emission reduction specified in table 7 of this subpart.

(D) The estimated percentage of reduction if a control technology achieving less than or equal to 95 percent emission reduction is or will be applied to the vapor stream(s) vented and collected from the treatment processes.

(E) The estimated percentage of reduction if a pollution prevention measure is or will be applied.

(F) The anticipated nominal efficiency if the owner or operator plans to apply for a nominal efficiency under § 63.652(i). A nominal efficiency shall be applied for if:

(1) A control technology is or will be applied to the wastewater stream and achieves an emission reduction greater than the emission reduction specified in table 7 of this subpart; or

(2) A control technology achieving greater than 95 percent emission reduction is or will be applied to the vapor stream(s) vented and collected from the treatment processes.

(G) For each pollution prevention measure, treatment process, or control device used to reduce air emissions of organic HAP's from wastewater and for which no monitoring parameters or inspection procedures are specified in § 63.647, the information specified in § 63.654(h)(4) shall be included in the Implementation Plan.

(ix) Documentation required in § 63.652(k) demonstrating the hazard or risk equivalency of the proposed emissions average.

(3) The Administrator shall determine within 120 calendar days whether the Implementation Plan submitted presents sufficient information. The

Administrator shall either approve the Implementation Plan, request changes, or request that the owner or operator submit additional information. Once the Administrator receives sufficient information, the Administrator shall approve, disapprove, or request changes to the plan within 120 calendar days.

§ 63.654 Reporting and recordkeeping requirements.

(a) Each owner or operator subject to the wastewater provisions in § 63.647 shall comply with the recordkeeping and reporting provisions in §§ 61.356 and 61.357 of 40 CFR part 61 subpart FF. There are no additional reporting and recordkeeping requirements for wastewater under this subpart unless a wastewater stream is included in an emissions average. Recordkeeping and reporting for emissions averages are specified in § 63.653 and in paragraphs (f)(5) and (g)(8) of this section.

(b) Each owner or operator subject to the gasoline loading rack provisions in § 63.650 shall comply with the recordkeeping and reporting provisions in § 63.428 (b) and (c), (g)(1), and (h)(1) through (h)(3) of subpart R of this part. These requirements are summarized in table 4 of this subpart. There are no additional reporting and recordkeeping requirements for gasoline loading racks under this subpart unless a loading rack is included in an emissions average. Recordkeeping and reporting for emissions averages are specified in § 63.653 and in paragraphs (f)(5) and (g)(8) of this section.

(c) Each owner or operator subject to the marine tank vessel loading operation standards in § 63.651 shall comply with the recordkeeping and reporting provisions in §§ 63.566 and 63.567(a) and § 63.567 (c) through (i) of subpart Y of this part. These requirements are summarized in table 5 of this subpart. There are no additional reporting and recordkeeping requirements for marine tank vessel loading operations under this subpart unless marine tank vessel loading operations are included in an emissions average. Recordkeeping and reporting for emissions averages are specified in § 63.653 and in paragraphs (f)(5) and (g)(8) of this section.

(d) Each owner or operator subject to the equipment leaks standards in § 63.648 shall comply with the recordkeeping and reporting provisions in paragraphs (d)(1) through (d)(3) of this section.

(1) Sections 60.486 and 60.487 of subpart VV of part 60, or §§ 63.181 and 63.182 of subpart H of this part except for § 63.182, paragraphs (b), (c)(2), and (c)(4).

(2) The Notification of Compliance Status report required by § 63.182(c) of subpart H and the initial semiannual report required by § 60.487(b) of 40 CFR part 60, subpart VV shall be submitted within 150 days of the compliance date specified in § 63.640(h); the requirements of subpart H of this part are summarized in table 3 of this subpart.

(3) An owner or operator who determines that a compressor qualifies for the hydrogen service exemption in § 63.646 shall also keep a record of the demonstration required by § 63.646.

(e) Each owner or operator of a source subject to this subpart shall submit the reports listed in paragraphs (e)(1) through (e)(3) of this section except as provided in paragraph (h)(5) of this section, and shall keep records as described in paragraph (i) of this section.

(1) A Notification of Compliance Status report as described in paragraph (f) of this section;

(2) Periodic Reports as described in paragraph (g) of this section; and

(3) Other reports as described in paragraph (h) of this section.

(f) Each owner or operator of a source subject to this subpart shall submit a Notification of Compliance Status report within 150 days after the compliance dates specified in § 63.640(h). This information may be submitted in an operating permit application, in an amendment to an operating permit application, in a separate submittal, or in any combination of the three. If the required information has been submitted before the date 150 days after the compliance date specified in § 63.640(h), a separate Notification of Compliance Status report is not required within 150 days after the compliance dates specified in § 63.640(h). If an owner or operator submits the information specified in paragraphs (f)(1) through (f)(5) of this section at different times, and/or in different submittals, later submittals may refer to earlier submittals instead of duplicating and resubmitting the previously submitted information.

(1) The Notification of Compliance Status report shall include the information specified in paragraphs (f)(1)(i) through (f)(1)(v) of this section.

(i) For storage vessels, this report shall include the information specified in paragraphs (f)(1)(i)(A) through (f)(1)(i)(D) of this section.

(A) Identification of each storage vessel subject to this subpart, whether the vessel is Group 1 or Group 2, and the method of compliance for each Group 1 storage vessel that is not included in an emissions average (i.e.,

internal floating roof, external floating roof, or closed-vent system and control device).

(B) If a closed vent system and a control device other than a flare is used to comply with § 63.645 the owner or operator shall submit:

(1) A description of the parameter or parameters to be monitored to ensure that the control device is being properly operated and maintained, an explanation of the criteria used for selection of that parameter (or parameters), and the frequency with which monitoring will be performed; and either

(2) The design evaluation documentation specified in § 63.120(d)(1)(i) of subpart G, if the owner or operator elects to prepare a design evaluation; or

(3) If the owner or operator elects to submit the results of a performance test, identification of the storage vessel and control device for which the performance test will be submitted, and identification of the emission point(s) that share the control device with the storage vessel and for which the performance test will be conducted.

(C) If a closed vent system and control device other than a flare is used, the owner or operator shall submit:

(1) The operating range for each monitoring parameter. The specified operating range shall represent the conditions for which the control device is being properly operated and maintained.

(2) If a performance test is conducted instead of a design evaluation, results of the performance test demonstrating that the control device achieves greater than or equal to the required control efficiency. A performance test conducted prior to the compliance date of this subpart can be used to comply with this requirement, provided that the test was conducted using EPA methods and that the test conditions are representative of current operating practices.

(D) If a closed vent system and a flare is used, the owner or operator shall submit:

(1) Flare design (e.g., steam-assisted, air-assisted, or nonassisted);

(2) All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required by § 63.120(e) of subpart G of this part; and

(3) All periods during the compliance determination when the pilot flame is absent.

(ii) For miscellaneous process vents, identification of each miscellaneous process vent subject to this subpart,

whether the process vent is Group 1 or Group 2, and the method of compliance for each Group 1 miscellaneous process vent that is not included in an emissions average (e.g., use of a flare or other control device meeting the requirements of § 63.643(a)).

(iii) For miscellaneous process vents controlled by control devices required to be tested under § 63.645 of this subpart and § 63.116(c) of subpart G of this part, performance test results including the information in paragraphs (f)(1)(iii)(A) and (B) of this section. Results of a performance test conducted prior to the compliance date of this subpart can be used provided that the test was conducted using the methods specified in § 63.645 and that the test conditions are representative of current operating conditions.

(A) The percentage of reduction of organic HAP's or TOC, or the outlet concentration of organic HAP's or TOC (parts per million by volume on a dry basis corrected to 3 percent oxygen), determined as specified in § 63.116(c) of subpart G of this part; and

(B) The value of the monitored parameters specified in table 10 of this subpart, or a site-specific parameter approved by the permitting authority, averaged over the full period of the performance test.

(iv) For miscellaneous process vents controlled by flares, performance test results including the information in paragraphs (f)(1)(iv)(A) and (B) of this section:

(A) All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required by § 63.645 of this subpart and § 63.116(a) of subpart G of this part, and

(B) A statement of whether a flame was present at the pilot light over the full period of the compliance determination.

(v) For equipment leaks complying with § 63.648(c) (i.e., complying with the requirements of subpart H of this part), the Notification of Compliance Report Status report information required by § 63.182(c) of subpart H and whether the percentage of leaking valves will be reported on a process unit basis or a sourcewide basis.

(2) If initial performance tests are required by §§ 63.643 through 63.653 of this subpart, the Notification of Compliance Status report shall include one complete test report for each test method used for a particular source.

(i) For additional tests performed using the same method, the results specified in paragraph (f)(1) of this

section shall be submitted, but a complete test report is not required.

(ii) A complete test report shall include a sampling site description, description of sampling and analysis procedures and any modifications to standard procedures, quality assurance procedures, record of operating conditions during the test, record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, documentation of calculations, and any other information required by the test method.

(iii) Performance tests are required only if specified by §§ 63.643 through 63.653 of this subpart. Initial performance tests are required for some kinds of emission points and controls. Periodic testing of the same emission point is not required.

(3) For each monitored parameter for which a range is required to be established under § 63.120(d) of subpart G of this part for storage vessels or § 63.644 for miscellaneous process vents, the Notification of Compliance Status report shall include the information in paragraphs (f)(3)(i) through (f)(3)(iii) of this section.

(i) The specific range of the monitored parameter(s) for each emission point;

(ii) The rationale for the specific range for each parameter for each emission point, including any data and calculations used to develop the range and a description of why the range ensures compliance with the emission standard.

(A) If a performance test is required by this subpart for a control device, the range shall be based on the parameter values measured during the performance test supplemented by engineering assessments and manufacturer's recommendations. Performance testing is not required to be conducted over the entire range of permitted parameter values.

(B) If a performance test is not required by this subpart for a control device, the range may be based solely on engineering assessments and manufacturer's recommendations.

(iii) A definition of the source's operating day for purposes of determining daily average values of monitored parameters. The definition shall specify the times at which an operating day begins and ends.

(4) Results of any continuous monitoring system performance evaluations shall be included in the Notification of Compliance Status report.

(5) For emission points included in an emissions average, the Notification of Compliance Status report shall include

the values of the parameters needed for input to the emission credit and debit equations in § 63.652(g) and (h), calculated or measured according to the procedures in § 63.652(g) and (h), and the resulting credits and debits for the first quarter of the year. The first quarter begins on the compliance date specified in § 63.640.

(g) The owner or operator of a source subject to this subpart shall submit Periodic Reports no later than 60 days after the end of each 6-month period when any of the compliance exceptions specified in paragraphs (g)(1) through (g)(6) of this section occur. The first 6-month period shall begin on the date the Notification of Compliance Status report is required to be submitted. A Periodic Report is not required if none of the compliance exceptions specified in paragraphs (g)(1) through (g)(6) of this section occurred during the 6-month period unless emissions averaging is utilized. Quarterly reports must be submitted for emission points included in emissions averages, as provided in paragraph (g)(8) of this section. An owner or operator may submit reports required by other regulations in place of or as part of the Periodic Report required by this paragraph if the reports contain the information required by paragraphs (g)(1) through (g)(8) of this section.

(1) For storage vessels, Periodic Reports shall include the information specified for Periodic Reports in paragraph (g)(2) through (g)(5) of this section except that information related to gaskets, slotted membranes, and sleeve seals is not required for storage vessels that are part of an existing source.

(2) An owner or operator who elects to comply with § 63.646 by using a fixed roof and an internal floating roof or by using an external floating roof converted to an internal floating roof shall submit the results of each inspection conducted in accordance with § 63.120(a) of subpart G of this part in which a failure is detected in the control equipment.

(i) For vessels for which annual inspections are required under § 63.120(a)(2)(i) or (a)(3)(ii) of subpart G of this part, the specifications and requirements listed in paragraphs (g)(2)(i)(A) through (g)(2)(i)(C) of this section apply.

(A) A failure is defined as any time in which the internal floating roof is not resting on the surface of the liquid inside the storage vessel and is not resting on the leg supports; or there is liquid on the floating roof; or the seal is detached from the internal floating roof; or there are holes, tears, or other openings in the seal or seal fabric; or

there are visible gaps between the seal and the wall of the storage vessel.

(B) Except as provided in paragraph (g)(2)(i)(C) of this section, each Periodic Report shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall also describe the nature of and date the repair was made or the date the storage vessel was emptied.

(C) If an extension is utilized in accordance with § 63.120(a)(4) of subpart G of this part, the owner or operator shall, in the next Periodic Report, identify the vessel; include the documentation specified in § 63.120(a)(4) of subpart G of this part; and describe the date the storage vessel was emptied and the nature of and date the repair was made.

(ii) For vessels for which inspections are required under § 63.120(a)(2)(ii), (a)(3)(i), or (a)(3)(iii) of subpart G of this part (i.e., internal inspections), the specifications and requirements listed in paragraphs (g)(2)(i)(A) and (g)(2)(ii)(B) of this section apply.

(A) A failure is defined as any time in which the internal floating roof has defects; or the primary seal has holes, tears, or other openings in the seal or the seal fabric; or the secondary seal (if one has been installed) has holes, tears, or other openings in the seal or the seal fabric; or, for a storage vessel that is part of a new source, the gaskets no longer close off the liquid surface from the atmosphere; or, for a storage vessel that is part of a new source, the slotted membrane has more than a 10 percent open area.

(B) Each Periodic Report shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall also describe the nature of and date the repair was made.

(3) An owner or operator who elects to comply with § 63.646 by using an external floating roof shall meet the periodic reporting requirements specified in paragraphs (g)(3)(i) through (g)(3)(iii) of this section.

(i) The owner or operator shall submit, as part of the Periodic Report, documentation of the results of each seal gap measurement made in accordance with § 63.120(b) of subpart G of this part in which the seal and seal gap requirements of § 63.120(b)(3), (b)(4), (b)(5), or (b)(6) of subpart G of this part are not met. This documentation shall include the information specified in paragraphs (g)(3)(i)(A) through (g)(3)(i)(D) of this section.

(A) The date of the seal gap measurement.

(B) The raw data obtained in the seal gap measurement and the calculations described in § 63.120(b)(3) and (b)(4) of subpart G of this part.

(C) A description of any seal condition specified in § 63.120(b)(5) or (b)(6) of subpart G of this part that is not met.

(D) A description of the nature of and date the repair was made, or the date the storage vessel was emptied.

(ii) If an extension is utilized in accordance with § 63.120(b)(7)(ii) or (b)(8) of subpart G of this part, the owner or operator shall, in the next Periodic Report, identify the vessel; include the documentation specified in § 63.120(b)(7)(ii) or (b)(8) of subpart G of this part, as applicable; and describe the date the vessel was emptied and the nature of and date the repair was made.

(iii) The owner or operator shall submit, as part of the Periodic Report, documentation of any failures that are identified during visual inspections required by § 63.120(b)(10) of subpart G of this part. This documentation shall meet the specifications and requirements in paragraphs (g)(3)(iii)(A) and (g)(3)(iii)(B) of this section.

(A) A failure is defined as any time in which the external floating roof has defects; or the primary seal has holes or other openings in the seal or the seal fabric; or the secondary seal has holes, tears, or other openings in the seal or the seal fabric; or, for a storage vessel that is part of a new source, the gaskets no longer close off the liquid surface from the atmosphere; or, for a storage vessel that is part of a new source, the slotted membrane has more than 10 percent open area.

(B) Each Periodic Report shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall also describe the nature of and date the repair was made.

(4) An owner or operator who elects to comply with § 63.646 by using an external floating roof converted to an internal floating roof shall comply with the periodic reporting requirements of paragraph (g)(2) of this section.

(5) An owner or operator who elects to comply with § 63.646 by installing a closed vent system and control device shall submit, as part of the next Periodic Report, the information specified in paragraphs (g)(5)(i) through (g)(5)(iii) of this section.

(i) The Periodic Report shall include the information specified in paragraphs (g)(5)(i)(A) and (g)(5)(i)(B) of this section for those planned routine maintenance

operations that would require the control device not to meet the requirements of § 63.119(e)(1) or (e)(2) of subpart G of this part, as applicable.

(A) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6 months. This description shall include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

(B) A description of the planned routine maintenance that was performed for the control device during the previous 6 months. This description shall include the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the requirements of § 63.119 (e)(1) or (e)(2) of subpart G of this part, as applicable, due to planned routine maintenance.

(ii) If a control device other than a flare is used, the Periodic Report shall describe each occurrence when the monitored parameters were outside of the parameter ranges documented in the Notification of Compliance Status report. The description shall include: Identification of the control device for which the measured parameters were outside of the established ranges, and causes for the measured parameters to be outside of the established ranges.

(iii) If a flare is used, the Periodic Report shall describe each occurrence when the flare does not meet the general control device requirements specified in § 63.11(b) of subpart A of this part and shall include: Identification of the flare that does not meet the general requirements specified in § 63.11(b) of subpart A of this part, and reasons the flare did not meet the general requirements specified in § 63.11(b) of subpart A of this part.

(6) For miscellaneous process vents for which continuous parameter monitors are required by this subpart, periods of excess emissions shall be identified in the Periodic Reports and shall be used to determine compliance with the emission standards.

(i) Period of excess emission means any of the following conditions:

(A) An operating day when the daily average value of a monitored parameter, except presence of a flare pilot flame, is outside the range specified in the Notification of Compliance Status report. Monitoring data recorded during periods of monitoring system breakdown, repairs, calibration checks and zero (low-level) and high-level adjustments shall not be used in computing daily average values of monitored parameters.

(B) An operating day when all pilot flames of a flare are absent.

(C) An operating day when monitoring data required to be recorded in paragraphs (i)(3) (i) and (ii) of this section are available for less than 75 percent of the operating hours.

(D) For data compression systems approved under paragraph (h)(5)(iii) of this section, an operating day when the monitor operated for less than 75 percent of the operating hours or a day when less than 18 monitoring values were recorded.

(ii) For miscellaneous process vents, excess emissions shall be reported for the operating parameters specified in table 10 of this subpart unless other site-specific parameter(s) have been approved by the operating permit authority.

(iii) Periods of startup, shutdown, and malfunction that meet the definitions in § 63.2 of subpart A of this part and periods of performance testing and monitoring system calibration shall not be considered periods of excess emissions. Malfunctions may include process unit, control device, or monitoring system malfunctions.

(7) If a performance test for determination of compliance for a new emission point subject to this subpart or for an emission point that has changed from Group 2 to Group 1 is conducted during the period covered by a Periodic Report, the results of the performance test shall be included in the Periodic Report.

(i) Results of the performance test shall include the percentage of emissions reduction or outlet pollutant concentration reduction (whichever is needed to determine compliance) and the values of the monitored operating parameters.

(ii) The complete test report shall be maintained onsite.

(3) The owner or operator of a source shall submit quarterly reports for all emission points included in an emissions average.

(i) The quarterly reports shall be submitted no later than 60 calendar days after the end of each quarter. The first report shall be submitted with the Notification of Compliance Status report no later than 150 days after the compliance date specified in § 63.640.

(ii) The quarterly reports shall include:

(A) The information specified in this paragraph and in paragraphs (g)(2) through (g)(7) of this section for all storage vessels and miscellaneous process vents included in an emissions average;

(B) The information required to be reported by § 63.428(h)(1) of subpart R

of this part for each gasoline loading rack included in an emissions average, unless this information has already been submitted in a separate report;

(C) The information required to be included in quarterly reports by §§ 63.567(f) and 63.567(i)(2) of subpart Y of this part for each marine tank vessel loading operation included in an emissions average, unless the information has already been submitted in a separate report;

(D) Any information pertaining to each wastewater stream included in an emissions average that the source is required to report under the Implementation Plan for the source;

(E) The credits and debits calculated each month during the quarter;

(F) A demonstration that debits calculated for the quarter are not more than 1.30 times the credits calculated for the quarter, as required under § 63.652(e)(4);

(G) The values of any inputs to the credit and debit equations in § 63.652 (g) and (h) that change from month to month during the quarter or that have changed since the previous quarter; and

(H) Any other information the source is required to report under the Implementation Plan for the source.

(iii) Every fourth quarterly report shall include the following:

(A) A demonstration that annual credits are greater than or equal to annual debits as required by § 63.652(e)(3); and

(B) A certification of compliance with all the emissions averaging provisions in § 63.652 of this subpart.

(h) Other reports shall be submitted as specified in subpart A of this part and as follows:

(1) Reports of startup, shutdown, and malfunction required by § 63.10(d)(5) of subpart A of this part; and

(2) For storage vessels, notifications of inspections as specified in paragraphs (h)(2)(i) and (h)(2)(ii) of this section;

(i) In order to afford the Administrator the opportunity to have an observer present, the owner or operator shall notify the Administrator of the refilling of each Group 1 storage vessel that has been emptied and degassed.

(A) Except as provided in paragraphs (h)(2)(i) (B) and (C) of this section, the owner or operator shall notify the Administrator in writing at least 30 calendar days prior to filling or refilling of each storage vessel with organic HAP's to afford the Administrator the opportunity to inspect the storage vessel prior to refilling.

(B) Except as provided in paragraph (h)(2)(i)(C) of this section, if the internal inspection required by §§ 63.120(a)(2), 63.120(a)(3), or 63.120(b)(10) of subpart

G of this part is not planned and the owner or operator could not have known about the inspection 30 calendar days in advance of refilling the vessel with organic HAP's, the owner or operator shall notify the Administrator at least 7 calendar days prior to refilling of the storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. This notification, including the written documentation, may also be made in writing and sent so that it is received by the Administrator at least 7 calendar days prior to the refilling.

(C) The State or local permitting authority can waive the notification requirements of paragraphs (h)(2)(i)(A) and/or (h)(2)(i)(B) of this section for all or some storage vessels at petroleum refineries subject to this subpart. The State or local permitting authority may also grant permission to refill storage vessels sooner than 30 days after submitting the notification required by paragraph (h)(2)(i)(A) of this section, or sooner than 7 days after submitting the notification required by paragraph (h)(2)(i)(B) of this section for all storage vessels, or for individual storage vessels on a case-by-case basis.

(ii) In order to afford the Administrator the opportunity to have an observer present, the owner or operator of a storage vessel equipped with an external floating roof shall notify the Administrator of any seal gap measurements. The notification shall be made in writing at least 30 calendar days in advance of any gap measurements required by § 63.120 (b)(1) or (b)(2) of subpart G of this part. The State or local permitting authority can waive this notification requirement for all or some storage vessels subject to the rule or can allow less than 30 calendar days' notice.

(3) For owners or operators of sources required to request approval for a nominal control efficiency for use in calculating credits for an emissions average, the information specified in § 63.652(h).

(4) The owner or operator who requests approval to monitor a different parameter than those listed in § 63.644 for miscellaneous process vents or who is required by § 63.653(a)(8) to establish a site-specific monitoring parameter for a point in an emissions average shall submit the information specified in paragraphs (h)(4)(i) through (h)(4)(iii) of this section. For new or reconstructed sources, the information shall be submitted with the application for approval of construction or reconstruction required by § 63.5(d) of subpart A and for existing sources, and

the information shall be submitted no later than 18 months prior to the compliance date. The information may be submitted in an operating permit application, in an amendment to an operating permit application, or in a separate submittal.

(i) A description of the parameter(s) to be monitored to determine whether excess emissions occur and an explanation of the criteria used to select the parameter(s).

(ii) A description of the methods and procedures that will be used to demonstrate that the parameter can be used to determine excess emissions and the schedule for this demonstration. The owner or operator must certify that they will establish a range for the monitored parameter as part of the Notification of Compliance Status report required in paragraphs (e) and (f) of this section.

(iii) The frequency and content of monitoring, recording, and reporting if: monitoring and recording are not continuous; or if periods of excess emissions, as defined in paragraph (g)(6) of this section, will not be identified in Periodic Reports required under paragraphs (e) and (g) of this section. The rationale for the proposed monitoring, recording, and reporting system shall be included.

(5) An owner or operator may request approval to use alternatives to the continuous operating parameter monitoring and recordkeeping provisions listed in paragraph (i) of this section.

(i) Requests shall be submitted with the Application for Approval of Construction or Reconstruction for new sources and no later than 18 months prior to the compliance date for existing sources. The information may be submitted in an operating permit application, in an amendment to an operating permit application, or in a separate submittal. Requests shall contain the information specified in paragraphs (h)(5)(iii) through (h)(5)(iv) of this section, as applicable.

(ii) The provisions in § 63.8(f)(5)(i) of subpart A of this part shall govern the review and approval of requests.

(iii) An owner or operator may request approval to use an automated data compression recording system that does not record monitored operating parameter values at a set frequency (for example, once every hour) but records all values that meet set criteria for variation from previously recorded values.

(A) The requested system shall be designed to:

(1) Measure the operating parameter value at least once every hour.

(2) Record at least 24 values each day during periods of operation.

(3) Record the date and time when monitors are turned off or on.

(4) Recognize unchanging data that may indicate the monitor is not functioning properly, alert the operator, and record the incident.

(5) Compute daily average values of the monitored operating parameter based on recorded data.

(B) The request shall contain a description of the monitoring system and data compression recording system, including the criteria used to determine which monitored values are recorded and retained, the method for calculating daily averages, and a demonstration that the system meets all criteria of paragraph (h)(5)(iii)(A) of this section.

(iv) An owner or operator may request approval to use other alternative monitoring systems according to the procedures specified in § 63.8(f) of subpart A of this part.

(6) The owner or operator shall submit the information specified in paragraphs (h)(6)(i) through (h)(6)(iii) of this section, as applicable. For existing sources, this information shall be submitted no later than 18 months prior to the compliance date. For a new source, the information shall be submitted with the application for approval of construction or reconstruction required by § 63.5(d) of subpart A of this part. The information may be submitted in an operating permit application, in an amendment to an operating permit application, or in a separate submittal.

(i) The determination of applicability of this subpart to petroleum refining process units that are designed and operated as flexible operation units.

(ii) The determination of applicability of this subpart to any storage vessel for which use varies from year to year.

(iii) The determination of applicability of this subpart to any distillation unit for which use varies from year to year.

(i) Recordkeeping.

(1) Each owner or operator subject to the storage vessel provisions in § 63.646 shall keep the records specified in § 63.123 of subpart G of this part except as specified in paragraphs (i)(1)(i) through (i)(1)(iv) of this section.

(i) Records related to gaskets, slotted membranes, and sleeve seals are not required for storage vessels within existing sources.

(ii) All references to § 63.122 in § 63.123 of subpart G of this part shall be replaced with § 63.654(e).

(iii) All references to § 63.150 in § 63.123 of subpart G of this part shall be replaced with § 63.652.

(iv) If a storage vessel is determined to be Group 2 because the weight percent total organic HAP of the stored liquid is less than or equal to 4 percent for existing sources or 2 percent for new sources, a record of any data, assumptions, and procedures used to make this determination shall be retained.

(2) Each owner or operator required to report the results of performance tests under paragraphs (f) and (g)(7) of this section shall retain a record of all reported results as well as a complete test report, as described in paragraph (f)(2)(ii) of this section for each emission point tested.

(3) Each owner or operator required to continuously monitor operating parameters under § 63.644 for miscellaneous process vents or under §§ 63.652 and 63.653 for emission points in an emissions average shall keep the records specified in paragraphs (i)(3)(i) through (i)(3)(v) of this section unless an alternative recordkeeping system has been requested and approved under paragraph (h) of this section.

(i) The monitoring system shall measure data values at least once every hour.

(ii) The owner or operator shall record either:

(A) Each measured data value; or
(B) Block average values for 1 hour or shorter periods calculated from all measured data values during each period. If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the hourly (or shorter period) block average instead of all measured values.

(iii) Daily average values of each continuously monitored parameter shall be calculated for each operating day and retained for 5 years except as specified in paragraph (i)(3)(iv) of this section.

(A) The daily average shall be calculated as the average of all values

for a monitored parameter recorded during the operating day. The average shall cover a 24-hour period if operation is continuous, or the number of hours of operation per day if operation is not continuous.

(B) The operating day shall be the period defined in the Notification of Compliance Status report. It may be from midnight to midnight or another daily period.

(iv) If all recorded values for a monitored parameter during an operating day are within the range established in the Notification of Compliance Status report, the owner or operator may record that all values were within the range and retain this record for 5 years rather than calculating and recording a daily average for that day. For these days, the records required in paragraph (i)(3)(ii) of this section shall also be retained for 5 years.

(v) Monitoring data recorded during periods of monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments shall not be included in any average computed under this subpart. Records shall be kept of the times and durations of all such periods and any other periods during process or control device operation when monitors are not operating.

(4) All other information required to be reported under paragraphs (a) through (h) of this section shall be retained for 5 years.

§§ 63.655 through 63.679 [Reserved].

Appendix to Subpart CC—Tables

TABLE 1.—HAZARDOUS AIR POLLUTANTS

Chemical name	CAS No.*
Benzene	71432
Biphenyl	92524
Butadiene (1,3)	10990
Carbon disulfide	75150

TABLE 1.—HAZARDOUS AIR POLLUTANTS—Continued

Chemical name	CAS No.*
Carbonyl sulfide	463581
Cresol (mixed isomers ^b)	1319773
Cresol (m-)	108394
Cresol (o-)	95487
Cresol (p-)	106445
Cumene	98828
Dibromomethane (1,2) (ethylene dibromide)	106934
Dichloroethane (1,2)	107062
Diethanolamine	111422
Ethylbenzene	100414
Ethylene glycol	107211
Hexane	110543
Methanol	67561
Methyl ethyl ketone (2-butanone) ..	78933
Methyl isobutyl ketone (hexone) ..	108101
Methyl tert butyl ether	1634044
Naphthalene	91203
Phenol	108952
Toluene	108883
Trimethylpentane (2,2,4)	540841
Xylene (mixed isomers ^b)	1330207
xylene (m-)	108363
xylene (o-)	95476
xylene (p-)	106423

*CAS number = Chemical Abstract Service registry number assigned to specific compounds, isomers, or mixtures of compounds.

^bIsomer means all structural arrangements for the same number of atoms of each element and does not mean salts, esters, or derivatives.

TABLE 2.—LEAK DEFINITIONS FOR PUMPS AND VALVES

Standard*	Phase	Leak definition (parts per million)
§ 63.163 (pumps)	I	10,000
	II	5,000
	III	2,000
§ 63.168 (valves)	I	10,000
	II	1,000
	III	1,000

*Subpart H of this part.

TABLE 3.—EQUIPMENT LEAK RECORDKEEPING AND REPORTING REQUIREMENTS FOR SOURCES COMPLYING WITH § 63.648 OF SUBPART CC BY COMPLIANCE WITH SUBPART H OF THIS PART*

Reference (section of subpart H of this part)	Description	Comment
63.181(a)	Recordkeeping system requirements	Except for §§ 63.181(b)(2)(iii) and 63.181(b)(9).
63.181(b)	Records required for process unit equipment	Except for §§ 63.181(b)(2)(iii) and 63.181(b)(9).
63.181(c)	Visual inspection documentation	Except for §§ 63.181(b)(2)(iii) and 63.181(b)(9).
63.181(d)	Leak detection record requirements	Except for § 63.181(d)(8).
63.181(e)	Compliance requirements for pressure tests for batch product process equipment trains.	This subsection does not apply to subpart CC.
63.181(f)	Compressor compliance test records.	
63.181(g)	Closed-vent systems and control device record requirements.	
63.181(h)	Process unit quality improvement program records.	

TABLE 3.—EQUIPMENT LEAK RECORDKEEPING AND REPORTING REQUIREMENTS FOR SOURCES COMPLYING WITH § 63.648 OF SUBPART CC BY COMPLIANCE WITH SUBPART H OF THIS PART^a—Continued

Reference (section of subpart H of this part)	Description	Comment
63.181(i)	Heavy liquid service determination record.	
63.181(j)	Equipment identification record.	
63.181(k)	Enclosed-vented process unit emission limitation record requirements.	
63.182(a)	Reports.	
63.182(b)	Initial notification report requirements.	
63.182(c)	Notification of compliance status report	Except in § 63.182(2); change "within 90 days of the compliance dates" to "within 150 days of the compliance dates."
63.182(d)	Periodic report	Except for §§ 63.182 (d)(2)(vii), (d)(2)(viii), and (d)(3).

^aThis table does not include all the requirements delineated under the referenced sections. See referenced sections for specific requirements.

TABLE 4.—GASOLINE DISTRIBUTION EMISSION POINT RECORDKEEPING AND REPORTING REQUIREMENTS^a

Reference (section of subpart R of this part)	Description	Comment
63.428(b)	Records of test results for each gasoline cargo tank loaded at the facility	
63.428(c)	Continuous monitoring data recordkeeping requirements	
63.428(g)(1)	Semiannual report loading rack information	Required to be submitted with the periodic report required under 40 CFR part 63 subpart CC.
63.428(h)(1) through (h)(3)	Excess emissions report loading rack information	Required to be submitted with the periodic report required under 40 CFR part 63 subpart CC.
63.428(i)	Records and annual reports for facilities meeting § 63.420(c) (emissions screening factor <1.0, but ≥0.5).	The information required under this paragraph is to be submitted with the Periodic Report required under 40 CFR part 63 subpart CC.
63.428(j)	Records and reports for facilities meeting § 63.420(d) (emissions screening factor <0.5).	The information required under this paragraph is to be submitted with the periodic report required under 40 CFR part 63 subpart CC.

^aThis table does not include all the requirements delineated under the referenced sections. See referenced sections for specific requirements.

TABLE 5.—MARINE VESSEL LOADING AND UNLOADING OPERATIONS RECORDKEEPING AND REPORTING REQUIREMENTS^a

Reference (section of subpart Y of this part)	Description	Comment
63.566(a)	Performance test/site test plan	The information required under this paragraph is to be submitted with the notification of compliance status report required under 40 CFR part 63 subpart CC.
63.566(b)	Performance test data requirements	
63.567(a)	General Provisions (subpart A) applicability	
63.567(c)	Vent system valve bypass recordkeeping requirements	
63.567(d)	Continuous equipment monitoring recordkeeping requirements	
63.567(e)	Flare recordkeeping requirements	
63.567(f)	Quarterly report requirements	The information required under this paragraph is to be submitted with the periodic report required under 40 CFR part 63 subpart CC.
63.567(g)	Marine vessel vapor-tightness documentation	
63.567(h)	Documentation file maintenance	
63.567(i)	Emission estimation reporting and recordkeeping procedures	

^aThis table does not include all the requirements delineated under the referenced sections. See referenced sections for specific requirements.

TABLE 6.—GENERAL PROVISIONS APPLICABILITY TO SUBPART CC^a

Reference	Applies to subpart CC	Comment
63.1(a)(1)	Yes	
63.1(a)(2)	Yes	
63.1(a)(3)	Yes	

TABLE 6.—GENERAL PROVISIONS APPLICABILITY TO SUBPART CC—Continued

Reference	Applies to subpart CC	Comment
63.1(a)(4)	No	Subpart CC (this table) specifies applicability of each paragraph in subpart A to subpart CC.
63.1(a)(5)—63.1(a)(9)	No	
63.1(a)(10)	No	
63.1(a)(11)	Yes	Subpart CC and other cross-referenced subparts specify calendar or operating day.
63.1(a)(12)	Yes	
63.1(a)(13)	Yes	
63.1(a)(14)	Yes	Subpart CC specifies its own applicability.
63.1(b)(1)	No	
63.1(b)(2)	Yes	
63.1(b)(3)	No	Subpart CC explicitly specifies requirements that apply. Area sources are not subject to subpart CC.
63.1(c)(1)	No	
63.1(c)(2)	No	
63.1(c)(3)	No	Except that sources are not required to submit notifications overridden by this table.
63.1(c)(4)	Yes	
63.1(c)(5)	Yes	
63.1(d)	No	\$ 63.641 of subpart CC specifies that if the same term is defined in subparts A and CC, it shall have the meaning given in subpart CC.
63.1(e)	No	
63.2	Yes	
63.3	No	Units of measure are spelled out in subpart CC.
63.4(a)(1)—63.4(a)(3)	Yes	
63.4(a)(4)	No	
63.4(a)(5)	Yes	Reserved.
63.4(b)	Yes	
63.4(c)	Yes	
63.5(a)(1)	Yes	Except replace term "source" and "stationary source" in § 63.5(a)(1) of subpart A with "affected source."
63.5(a)(2)	Yes	
63.5(b)(1)	Yes	
63.5(b)(2)	No	Reserved.
63.5(b)(3)	Yes	
63.5(b)(4)	Yes	
63.5(b)(5)	Yes	Except the cross-reference to § 63.9(b) is changed to § 63.9(b)(4) and (5). Subpart CC overrides § 63.9 (b)(2) and (b)(3).
63.5(b)(6)	Yes	
63.5(c)	No	
63.5(d)(1)(i)	Yes	Reserved.
63.5(d)(1)(ii)	Yes	
63.5(d)(1)(iii)	Yes	
63.5(d)(1)(iv)	Yes	Except that the application shall be submitted as soon as practicable before startup but no later than 90 days (rather than 60 days) after the promulgation date of subpart CC if the construction or reconstruction had commenced and initial startup had not occurred before the promulgation of subpart CC.
63.5(d)(1)(v)	Yes	
63.5(d)(1)(vi)	Yes	
63.5(d)(1)(vii)	Yes	Except that for affected sources subject to subpart CC, emission estimates specified in § 63.5(d)(1)(ii)(H) are not required.
63.5(d)(1)(viii)	Yes	
63.5(d)(1)(ix)	Yes	
63.5(d)(1)(x)	Yes	Subpart CC requires submittal of the notification of compliance status report in § 63.654(e).
63.5(d)(1)(xi)	Yes	
63.5(d)(1)(xii)	Yes	
63.5(d)(2)	No	Except § 63.5(d)(3)(ii) does not apply.
63.5(d)(3)	Yes	
63.5(d)(4)	Yes	
63.5(e)	Yes	Except that the "60 days" in the cross-referenced § 63.5(d)(1) is changed to "90 days," and the cross-reference to (b)(2) does not apply.
63.5(f)(1)	Yes	
63.5(f)(2)	Yes	
63.6(a)	Yes	Subpart CC specifies compliance dates for sources subject to subpart CC.
63.6(b)(1)	No	
63.6(b)(2)	No	
63.6(b)(3)	Yes	May apply when standards are proposed under section 112(f) of the Clean Air Act.
63.6(b)(4)	No	
63.6(b)(5)	No	
63.6(b)(6)	No	\$ 63.654(d) of subpart CC includes notification requirements.
63.6(b)(7)	No	
63.6(c)(1)	No	
63.6(c)(2)—63.6(c)(4)	No	\$ 63.640 of subpart CC specifies the compliance date.
63.6(c)(5)	No	
63.6(c)(6)	No	

TABLE 6.—GENERAL PROVISIONS APPLICABILITY TO SUBPART CC—Continued

Reference	Applies to subpart CC	Comment
63.6(c)(5)	Yes	Does not apply to Group 2 emission points. ^b
63.6(d)	No	
63.6(e)	Yes	
63.6(f)(1)	Yes	
63.6(f)(2)(i)	Yes	
63.6(f)(2)(ii)	Yes	Subpart CC specifies the use of monitoring data in determining compliance with subpart CC.
63.6(f)(2)(iii) (A), (B), and (C)	Yes	
63.6(f)(2)(iii) (D)	No	
63.6(f)(2)(iv)	Yes	
63.6(f)(2)(v)	Yes	
63.6(f)(3)	Yes	Subpart CC does not require opacity and visible emission standards. Except for § 63.6(i)(15), which is reserved.
63.6(g)	Yes	
63.6(h)	No	
63.6(i)	Yes	
63.6(j)	Yes	
63.7(a)(1)	No	Subpart CC specifies required testing and compliance demonstration procedures. Test results must be submitted in the notification of compliance status report due 150 days after compliance date, as specified in § 63.654(d) of subpart CC.
63.7(a)(2)	No	
63.7(a)(3)	Yes	
63.7(b)	No	
63.7(c)	No	
63.7(d)	Yes	Subpart CC specifies test methods and procedures.
63.7(e)(1)	Yes	
63.7(e)(2)	Yes	
63.7(e)(3)	No	
63.7(e)(4)	Yes	
63.7(f)	No	Subpart CC specifies applicable methods and provides alternatives. Performance test reporting specified in § 63.654(d).
63.7(g)	No	
63.7(h)(1)	Yes	
63.7(h)(2)	Yes	
63.7(h)(3)	Yes	
63.7(h)(4)	No	Yes, except site-specific test plans shall not be required; and where § 63.7(g)(3) specifies submittal by the date the site-specific test plan is due, the date shall be 90 days prior to the notification of compliance status report in § 63.654(d).
63.7(h)(5)	Yes	
63.8(a)	No	
63.8(b)(1)	Yes	
63.8(b)(2)	No	
63.8(b)(3)	Yes	Subpart CC specifies locations to conduct monitoring.
63.8(c)(1)(i)	Yes	
63.8(c)(1)(ii)	No	
63.8(c)(1)(iii)	Yes	
63.8(c)(2)	Yes	
63.8(c)(3)	Yes	Addressed by periodic reports in § 63.654(e) of subpart CC.
63.8(c)(4)	No	
63.8(c)(5)—63.8(c)(8)	No	
63.8(d)	No	
63.8(e)	No	
63.8(f)(1)	Yes	Subpart CC specifies monitoring frequency in § 63.641 and § 63.654(g)(3) of subpart CC.
63.8(f)(2)	Yes	
63.8(f)(3)	Yes	
63.8(f)(4)(i)	No	
63.8(f)(4)(ii)	Yes	
63.8(f)(4)(iii)	No	Timeframe for submitting request is specified in § 63.654(f)(4) of subpart CC.
63.8(f)(5)(i)	Yes	
63.8(f)(5)(ii)	No	
63.8(f)(5)(iii)	Yes	
63.8(f)(6)	No	
63.8(g)	No	Subpart CC does not require continuous emission monitors. Subpart CC specifies data reduction procedures in § 63.654(h)(3). Except that the owner or operator does not need to send a copy of each notification submitted to the Regional Office of the EPA as stated in § 63.9(a)(4)(ii).
63.9(a)	Yes	

TABLE 6.—GENERAL PROVISIONS APPLICABILITY TO SUBPART CC—Continued

Reference	Applies to subpart CC	Comment
63.9(b)(1)(i)	No	Specified in § 63.654(d)(2) of subpart CC.
63.9(b)(1)(ii)	No	
63.9(b)(2)	No	
63.9(b)(3)	No	
63.9(b)(4)	Yes	An initial notification report is not required under subpart CC.
63.9(b)(5)	Yes	
63.9(c)	Yes	Except that the notification in § 63.9(b)(4)(i) shall be submitted at the time specified in § 63.654(d)(2) of subpart CC.
63.9(d)	Yes	
63.9(e)	No	Except that the notification in § 63.9(b)(5) shall be submitted at the time specified in § 63.654(d)(2) of subpart CC.
63.9(f)	No	
63.9(g)	No	Subpart CC § 63.652(d) specifies notification of compliance status report requirements.
63.9(h)	No	
63.9(i)	Yes	
63.9(j)	No	
63.10(a)	Yes	§ 63.644(d) of subpart CC specifies record retention requirements.
63.10(b)(1)	No	
63.10(b)(2)(i)	Yes	
63.10(b)(2)(ii)	Yes	
63.10(b)(2)(iii)	No	
63.10(b)(2)(iv)	Yes	
63.10(b)(2)(v)	Yes	
63.10(b)(2)(vi)–(ix)	No	
63.10(b)(2)(x)	Yes	
63.10(b)(2)(xi)–(xiv)	No	
63.10(b)(3)	No	
63.10(c)	No	
63.10(d)(1)	No	§ 63.654(d) of subpart CC specifies performance test reporting.
63.10(d)(2)	No	
63.10(d)(3)	No	
63.10(d)(4)	Yes	
63.10(d)(5)(i)	Yes ^b	Except that reports required by § 63.10(d)(5)(i) may be submitted at the same time as periodic reports specified in § 63.654(e) of subpart CC.
63.10(d)(5)(ii)	Yes ^b	
63.10(e)	No	
63.10(f)	Yes	
63.11–63.15	Yes	

* Wherever subpart A specifies "postmark" dates, submittals may be sent by methods other than the U.S. Mail (e.g., by fax or courier). Submittals shall be sent by the specified dates, but a postmark is not required.

^b The plan, and any records or reports of startup, shutdown, and malfunction do not apply to Group 2 emission points.

TABLE 7.—FRACTION MEASURED (F_m), FRACTION EMITTED (F_e), AND FRACTION REMOVED (F_r) FOR HAP COMPOUNDS IN WASTEWATER STREAMS

Chemical name	CAS No. ^a	F_m	F_e	F_r
Benzene	71432	1.00	0.80	0.99
Biphenyl	92524	0.86	0.45	0.99
Butadiene (1,3-)	106990	1.00	0.98	0.99
Carbon disulfide	75150	1.00	0.92	0.99
Cumene	98828	1.00	0.88	0.99
Dichloroethane (1,2-) (Ethylene dichloride)	107062	1.00	0.64	0.99
Ethylbenzene	100414	1.00	0.83	0.99
Hexane	110543	1.00	1.00	0.99
Methanol	67561	0.85	0.17	0.31
Methyl ethyl ketone (2-Butanone)	78933	0.99	0.48	0.95
Methyl isobutyl ketone (Hexone)	108101	0.98	0.53	0.99
Methyl tert-butyl ether	163404	1.00	0.57	0.99
Naphthalene	91203	0.99	0.51	0.99
Trimethylpentane (2,2,4-)	540841	1.00	1.00	0.99
Xylene (m-)	108383	1.00	0.82	0.99
Xylene (o-)	95476	1.00	0.79	0.99
Xylene (p-)	106423	1.00	0.82	0.99

^a CAS numbers refer to the Chemical Abstracts Service registry number assigned to specific compounds, isomers, or mixtures of compounds.

TABLE 8.—VALUE MONITORING FREQUENCY FOR PHASE III

Performance level	Valve monitoring frequency
Leaking valves* (%)	
≥4	Monthly or QIP. ^b
<4	Quarterly.
<3	Semiannual.
<2	Annual.

* Percent leaking valves is calculated as a rolling average of two consecutive monitoring periods.

^b QIP=Quality improvement program. Specified in § 63.175 of subpart H of this part.

TABLE 9.—VALVE MONITORING FREQUENCY FOR ALTERNATIVE

Performance level	Valve monitoring frequency under § 63.649 alternative
Leaking valves* (%)	
≥5	Monthly or QIP. ^b
<5	Quarterly.
<4	Semiannual.
<3	Annual.

* Percent leaking valves is calculated as a rolling average of two consecutive monitoring periods.

^b QIP=Quality improvement program. Specified in § 63.175 of subpart H of this part.

TABLE 10.—MISCELLANEOUS PROCESS VENTS—MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS FOR COMPLYING WITH 98 WEIGHT-PERCENT REDUCTION OF TOTAL ORGANIC HAP EMISSIONS OR A LIMIT OF 20 PARTS PER MILLION BY VOLUME

Control device	Parameters to be monitored ^a	Recordkeeping and reporting requirements for monitored parameters
Thermal incinerator	Firebox temperature ^b (63.644(a)(1)(i)).	1. Continuous records ^c . 2. Record and report the firebox temperature averaged over the full period of the performance test—NCS ^d . 3. Record the daily average firebox temperature for each operating day ^e . 4. Report all daily average temperatures that are outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected—PR ^f .
Catalytic incinerator	Temperature upstream and downstream of the catalyst bed (63.644(a)(1)(ii)).	1. Continuous records ^c . 2. Record and report the upstream and downstream temperatures and the temperature difference across the catalyst bed averaged over the full period of the performance test—NCS ^d . 3. Record the daily average upstream temperature and temperature difference across the catalyst bed for each operating day ^e . 4. Report all daily average upstream temperatures that are outside the range established in the NCS or operating permit—PR ^f . 5. Report all daily average temperature differences across the catalyst bed that are outside the range established in the NCS or operating permit—PR ^f . 6. Report all operating days when insufficient monitoring data are collected ^f .
Boiler or process heater with a design heat capacity less than 44 megawatts where the vent stream is not introduced into the flame zone ^{h,i} .	Firebox temperature ^b (63.644(a)(4)).	1. Continuous records ^c . 2. Record and report the firebox temperature averaged over the full period of the performance test—NCS ^d . 3. Record the daily average firebox temperature for each operating day ^e . 4. Report all daily average firebox temperatures that are outside the range established in the NCS or operating permit and all operating days when insufficient monitoring data are collected—PR ^f .
Flare	Presence of a flame at the pilot light (63.644(a)(2)).	1. Hourly records of whether the monitor was continuously operating and whether a pilot flame was continuously present during each hour. 2. Record and report the presence of a flame at the pilot light over the full period of the compliance determination—NCS ^d .

TABLE 10.—MISCELLANEOUS PROCESS VENTS—MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS FOR COMPLYING WITH 98 WEIGHT-PERCENT REDUCTION OF TOTAL ORGANIC HAP EMISSIONS OR A LIMIT OF 20 PARTS PER MILLION BY VOLUME—Continued

Control device	Parameters to be monitored*	Recordkeeping and reporting requirements for monitored parameters
All control devices	Presence of flow diverted to the atmosphere from the control device [63.644(c)(1)] or. Monthly inspections of sealed valves [63.644(c)(2)].	3. Record the times and durations of all periods when all pilot flames for a flare are absent or the monitor is not operating. 4. Report the times and durations of all periods when all pilot flames for a flare are absent or the monitor is not operating. 1. Hourly records of whether the flow indicator was operating and whether flow was detected at any time during each hour. 2. Record and report the times and durations of all periods when the vent stream is diverted through a bypass line or the monitor is not operating—PR*. 1. Records that monthly inspections were performed. 2. Record and report all monthly inspections that show the valves are not closed or the seal has been changed—PR*.

*Regulatory citations are listed in parentheses.

*Monitor may be installed in the firebox or in the ductwork immediately downstream of the firebox before any substantial heat exchange is encountered.

*"Continuous records" is defined in § 63.641.

*NCS = Notification of compliance status report described in § 63.654.

*The daily average is the average of all recorded parameter values for the operating day. If all recorded values during an operating day are within the range established in the NCS or operating permit, a statement to this effect can be recorded instead of the daily average.

*When a period of excess emission is caused by insufficient monitoring data, as described in § 63.654(g)(6)(i) (C) or (D), the duration of the period when monitoring data were not collected shall be included in the Periodic Report.

*PR = Periodic Reports described in § 63.654(g).

*No monitoring is required for boilers and process heaters with a design heat capacity ≥ 44 megawatts or for boilers and process heaters where all vent streams are introduced into the flame zone. No recordkeeping or reporting associated with monitoring is required for such boilers and process heaters.

*Process vents that are routed to refinery fuel gas systems are not regulated under this subpart. No monitoring, recordkeeping, or reporting is required for boilers and process heaters that combust refinery fuel gas.

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