WEST VIRGINIA
SECRETARY OF STATE
NATALIE E. TENNANT
ADMINISTRATIVE LAW DIVISION

Form #1

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OFFICE WEST VIRGINIA SECRETARY OF STATE

NOTICE OF A PUBLIC HEARING ON A PROPOSED RULE

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

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

AMENDMENT TO AN EXISTING RULE: YES [X] NO [ ]

IF YES, SERIES NUMBER OF RULE BEING AMENDED: 45CSR25

TITLE OF RULE BEING AMENDED: Control of Air Pollution from Hazardous Waste Treatment, Storage and Disposal Facilities

IF NO, SERIES NUMBER OF RULE BEING PROPOSED: _____

TITLE OF RULE BEING PROPOSED: _____

DATE OF PUBLIC HEARING: July 13, 2009 TIME: 6:00 p.m.

LOCATION OF PUBLIC HEARING: WV Department of Environmental Protection
Dolly Sods Conference Room
601 57th Street, S.E.
Charleston, WV 25304

COMMENTS LIMITED TO: ORAL [ ] WRITTEN [ ] BOTH [X]

DATE WRITTEN COMMENT PERIOD ENDS: July 13, 2009 TIME: Close of Hearing

WRITTEN COMMENTS MAY BE MAILED TO:
Kathy Cosco, Public Information Office
WV Department of Environmental Protection
601 57th Street, S.E.
Charleston, WV 25304

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

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

ATTACH A **BRIEF** SUMMARY OF YOUR PROPOSAL

Authorized Signature

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY

BRIEFING DOCUMENT

Rule Title: 45CSR25 - "Control of Air Pollution from Hazardous Waste Treatment, Storage and Disposal Facilities."

A. AUTHORITY: W.Va. Code §§22-5-4 and 22-18-6.

B. SUMMARY OF RULE:

This rule establishes and adopts emission standards for the treatment, storage and disposal of hazardous waste promulgated by the United States Environmental Protection Agency (U.S. EPA) pursuant to the Resource Conservation and Recovery Act, as amended (RCRA). This rule codifies general procedures and criteria to implement emission standards set forth in 40 CFR Parts 260, 261, 262, 264, 265, 266, 270 and 279, as listed in Table 25-A of the rule. The rule also adopts associated appendices, reference methods, performance specifications and other test methods which are appended to these standards. Any person who constructs, reconstructs, modifies or operates any hazardous waste treatment, storage, or disposal facility must comply with the West Virginia Hazardous Waste Management System, the codified federal emission standards, and this rule.

45CSR25 establishes a program of regulation over the treatment, storage, and disposal of hazardous wastes in order to achieve and maintain such levels of air quality as will protect the public health and safety and the environment from the effects of improper, inadequate, or unsound treatment, storage, or disposal of hazardous wastes.

C. STATEMENT OF CIRCUMSTANCES WHICH REQUIRE RULE:

Promulgation of this rule will enable the Department of Environmental Protection to continue to be the primary enforcement authority for the RCRA Hazardous Waste Management System in West Virginia. Revisions to this rule are necessary to maintain consistency with current federal regulations, the Office of Waste Management's Hazardous Waste Management System rule 33CSR20, and to fulfill the State's responsibilities under the CAA. Revisions to the rule include annual incorporation by reference updates.

This revised rule incorporates by reference the following provisions of 40 CFR Parts 260, 261, 264, 265, 266 and 270 promulgated as of June 1, 2009: Identification and Listing of Hazardous Waste, Revisions to the Definition of Solid Waste, Standards Applicable to Generators of Hazardous Waste, and Expansion of RCRA Comparable Fuel Exclusion.

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

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

E. CONSTITUTIONAL TAKINGS DETERMINATION:

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

F. CONSULTATION WITH THE ENVIRONMENTAL PROTECTION ADVISORY COUNCIL:

At its June 3, 2009 meeting, the Environmental Protection Advisory Council reviewed and discussed this rule. (See attached minutes for Council's discussion).

West Virginia Department of Environmental Protection

ADVISORY COUNCIL MEETING MINUTES

Wednesday, June 3, 2009
601 57th Street, SE, Charleston, West Virginia
West Virginia Room – 3rd Floor

IN ATTENDANCE:

Members of the Council:

Lisa Dooley
Jackie Hallinan
Larry Harris
Karen Price
Bill Raney
Rick Roberts

DEP:

Raymond Franks II	General Counsel
Kristin Boggs	Associate General Counsel
Kathy Cosco	Chief Communications Officer
Tom Clarke	Director, Division of Mining & Reclamation
James Martin	Chief, Office of Oil & Gas
Robert Bates	Division of Water & Waste Management
Bill Brannon	Division of Water & Waste Management
Carroll Cather	Division of Water & Waste Management
Ellen Herndon	Division of Water & Waste Management
Jeff Knepper	Division of Water & Waste Management
Teresa Koon	Division of Water & Waste Management
Sudhir Patel	Division of Water & Waste Management
Yogesh Patel	Division of Water & Waste Management
Bill Timmermeyer	Division of Water & Waste Management
Ken Politan	Division of Mining & Reclamation
Jim Mason	Division of Air Quality

Others:

Don Garvin	Interested Citizen
Steve Hannah	Interested Citizen
Dave Yaussy	Interested Citizen

OLD BUSINESS:

Raymond Franks called the meeting to order at 1:45 p.m. Mr. Franks noted that two members of the Council had pointed out a minor discrepancy in the April minutes as circulated, and that for expediency's sake the error would be corrected following the meeting and the April and June minutes each moved for approval at the September meeting.

Mr. Franks provided to the Council information it had requested at the April meeting regarding ongoing projects in the Office of Abandoned Mine Lands and recruiting potential for environmental inspectors. The Council agreed to review the information and discuss it in more detail at the September meeting.

NEW BUSINESS:

Mr. Franks turned the meeting over to Kristin Boggs for presentation and discussion of the 2010 proposed Legislative Rules:

DIVISION OF WATER & WASTE MANAGEMENT – WATER RULES

47CSR10 – ***NPDES Rule***: Promulgated last in 2008. The proposed revisions reflect changes made to the Federal rule regarding Concentrated Animal Feeding Operations (CAFOs), which became effective in November 2008. EPA gave DEP two years to revise the State rules and start issuing permits. The revisions include a clarified definition of CAFO, a detailed explanation of the permitting process and the process for permit exemption, and an explanation of the required nutrient management plan. Technical revisions and corrections are made throughout.

47CSR26 – ***Water Pollution Control Permit Fee Schedules***: Promulgated last in 2000. The proposed revisions reflect the CAFO changes made in the NPDES Rule. The fees for CAFOs will be as follows: $300 for the initial application; $300 for permit renewal; $50 for permit modification; and $50 for the annual permit fee. Technical revisions and corrections are made throughout.

47CSR12 – ***Requirements re Groundwater Standards***: Promulgated last in 2002. The proposed revisions reflect updates and additions made to EPA's 2006 edition of the Drinking Water Standards & Health Advisories. Technical revisions and corrections are made throughout.

47CSR59 – ***Monitoring Well Rule***. Promulgated last in 1994. The proposed revisions add new language to incorporate "high" and "low" risk boreholes, experience requirements for those persons applying for monitoring well driller certificates, recertification and training requirements for monitoring well drillers, and definitions. Technical revisions and corrections are made throughout.

47CSR60 – ***Monitoring Well Design Standards***. Promulgated last in 1996. The proposed revisions bring this rule in conformance with the 47CSR59 *Monitoring Well Rule* definition changes, and "high" and "low" borehole requirements. Technical revisions and corrections are made throughout.

DIVISION OF WATER & WASTE MANAGEMENT – WASTE MANAGEMENT RULES

33CSR1 – *Solid Waste Management Rule*: Promulgated last in 2006. The proposed revisions include removing the requirement that free day tonnage count toward monthly/daily totals and clarifying the definition of pick-up truck. Technical revisions and corrections are made throughout.

33CSR20 – *Hazardous Waste Management System*: Promulgated last in 2009. The proposed rule reflects the annual incorporation-by-reference (IBR) revisions made by DEP to its hazardous waste rule. The proposed revisions include changes to the academic laboratory waste provisions to allow alternative requirements for hazardous waste determination and accumulation of unwanted materials at labs owned by and affiliated with colleges and universities. Other proposed revisions are directed at the hazardous waste code 019 provisions, which expand the exclusion for sludges generated from the chemical conversion coating of aluminum using a zinc phosphating process. The F019 waste code exclusion only applies to the automobile or light truck manufacturing industry. This IBR specifically excludes two federal amendments that are currently undergoing reconsideration by the EPA, *i.e.*, revisions to the definition of solid waste and expansion of RCRA comparable fuel exclusion. Technical revisions and corrections are made throughout.

Mr. Franks asked whether the Council had any questions about the seven DWWM rules. Mr. Raney inquired about the impetus for the change in the monitoring well rules, since they have not been revised in several years. Ms. Boggs responded that the changes in the rules reflect changes in technology and practice over time. There were no further questions from the Council.

OFFICE OF OIL AND GAS RULE

35CSR4 – *Oil & Gas Wells and Other Wells*: Promulgated last in 2001. The proposed revisions include updating the permit fees to reflect the 2005 statutory change, clarifying general requirements for pit and impoundment construction, and adding a new section setting forth requirements for constructing pits and impoundments that exceed a certain size. Technical revisions and corrections are made throughout.

Mr. Franks asked whether the Council had any questions about the OOG rule. Dr. Harris expressed concern that the current statutory bond amount may not suffice given the larger pits associated with Marcellus wells. Mr. Martin explained that the bond is a performance bond, not designed to cover any specific area of the well operation. Dr. Harris than asked about protections for surface owners whose water supply is impaired from drilling operations, in response to which Mr. Martin pointed out the statutory and regulatory remedies. There were no further questions from the Council.

DIVISION OF MINING & RECLAMATION RULE

47CSR30 – *Mining NPDES Rule*: Promulgated last in 2009. The proposed revisions include deleting the certification language for NPDES maps and decreasing from two years to one the raw mine drainage water quality data required for abandonment of a deep mine. Technical revisions and corrections are made throughout.

Mr. Franks asked whether the Council had any questions about the DMR rule. Ms. Dooley inquired whether the changes were substantive or merely technical. Ms. Boggs explained that although the changes appeared merely technical, they had real-world effects upon licensed professional engineers and surveyors, whom the rule required to swear to the contents of a NPDES map under penalty of perjury. Engineers and surveyors could not obtain insurance for such an oath, because they did not create the maps and were therefore subjecting themselves to criminal penalties for work that was not entirely within their control. There were no further questions from the Council.

DIVISION OF AIR QUALITY RULES

45CSR8 – *Ambient Air Quality Standards*: Promulgated last in 2009. The proposed revisions include deletion of redundant measurement method language for lead and addition of new national primary and secondary ambient air quality standards for lead.

45CSR14 – *Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration*: Promulgated last in 2009. The proposed revisions incorporate the New Source Review Program for Particulate Matter Less Than 2.5 Micrometers. Other miscellaneous revisions and corrections are also included, so that the rule comports with federal counterpart language.

45CSR16 – *Standards of Performance for New Stationary Sources*: Promulgated last in 2009. The proposed rule reflects the annual IBR revisions to New Source Performance Standards, including Stationary Spark-Ignition Internal Combustion Engines, Fossil Fuel-Fired Steam Generators and Industrial-Commercial-Institutional Steam Generating Units, Stationary Combustion Turbines, Nonroad Spark Ignition Engines, Alternative Work Practice To Detect Leaks From Equipment, Petroleum Refineries and Performance Specification 16 for Predictive Emissions Monitoring Systems, Amendments to Testing and Monitoring Provisions, and Nonmetallic Mineral Processing Plants. The IBR exclusion for the vacated Clean Air Mercury Rule has been removed.

45CSR19 – *Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution Which Cause or Contribute to Nonattainment*: Promulgated last in 2005. The proposed revisions incorporate the New Source Review Program for Particulate Matter Less Than 2.5 Micrometers, Reasonable Possibility in Recordkeeping, Ethanol Production Facilities, and 8-Hour Ozone National Ambient Air Quality Standard provisions. Other proposed revisions to the rule remove references to pollution control projects and clean units per the 2005 decision by the United State Court of Appeals for the District of Columbia Circuit that vacated the parallel federal provisions. Other miscellaneous revisions and/or corrections are also included, so that the rule comports with federal counterpart language.

45CSR25 – *Control of Air Pollution from Hazardous Waste Treatment, Storage and Disposal Facilities*: Promulgated last in 2009. The proposed rule reflects the annual IBR revisions to the Hazardous Waste rule.

45CSR33 – *Acid Rain Provisions and Permits*: Promulgated last in 2006. The proposed rule

reflects the annual IBR revisions, including Air Pollution Control, Transport of Emissions of Nitrogen Oxide and Sulfur Dioxide; Amendments to Monitoring Provisions; Revisions to Acid Rain Program Rules, and Revisions to the Continuous Monitoring Rule for the Acid Rain Program.

45CSR34 – *Emission Standards for Hazardous Air Pollutants*: Promulgated last in 2009. The proposed rule reflects the annual IBR revisions to the Hazardous Air Pollutant rule. Excluded from incorporation by reference are the national emission standards for hazardous air pollutants affecting non-major (area) sources of hazardous air pollutants for Iron and Steel Foundries, Plating and Polishing Operations, Ferroalloys Production Facilities, and Metal Fabrication and Finishing Source Categories.

Mr. Franks asked whether the Council had any questions about the seven DAQ Rules, and there were none.

On general comment, Dr. Harris inquired about water quality standards for mercury, citing a newspaper report that DEP supported less stringent standards based on data that State residents consume relatively fewer fish per capita. Mr. Clarke explained the factual context of the reported quote and the method by which EPA developed the point three (0.3) standard. With respect to the rules presentation, Dr. Harris suggested a return to the practice of providing Council with written summaries of the proposed rules, along with justifications for the proposed changes. The suggestion was well-received.

Mr. Franks then opened the floor to questions from the general public. Don Garvin, Legislative Coordinator for the West Virginia Environmental Council, inquired about acid rain standards, to which Mr. Mason responded that the State's standards with respect to acid rain derive from Title VI of the federal Clean Air Act.

Dr. Harris then asked whether the downtown in the energy market has caused any decrease in the number of permit applications to drill gas wells in the Marcellus Shale. Mr. Martin responded that the economy has had some effect on the number of permit applications overall, and that he could later provide Dr. Harris with more precise statistics.

Mr. Garvin complimented the Agency and the Office of Oil & Gas on finally requiring pits to be lined. Mr. Raney then thanked DEP staff for their hard work on the rules.

With no further comments forthcoming from the Council or public, Mr. Franks reminded everyone that the next meeting is scheduled for Wednesday, September 23, 2009. On motion from Mr. Raney, seconded by Mr. Roberts, Mr. Franks declared the meeting adjourned at 2:45 p.m.

APPENDIX B

FISCAL NOTE FOR PROPOSED RULES

Rule Title: 45CSR25 - "Control of Air Pollution from Hazardous Waste Treatment, Storage and Disposal Facilities"

Type of Rule: ___X__ Legislative _____Interpretive _____Procedural

Agency: Division of Air Quality

Address: 601 57th Street SE
Charleston, WV 25304

Phone Number: 926-0475 Email: tammy.l.mowrer@wv.gov

Fiscal Note Summary

Summarize in a clear and concise manner what impact this measure will have on costs and revenues of state government.

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

Fiscal Note Detail

Show over-all effect in Item 1 and 2 and, in Item 3, give an explanation of Breakdown by fiscal year, including long-range effect.

FISCAL YEAR			
Effect of Proposal	2010 Increase/Decrease (use "-")	2011 Increase/Decrease (use "-")	Fiscal Year (Upon Full Implementation)
1. Estimated Total Cost	$ 0	$ 0	$ 0
Personal Services	0	0	0
Current Expenses	0	0	0
Repairs & Alterations	0	0	0
Assets	0	0	0
Equipment	0	0	0
Other	0	0	0
2. Estimated Total Revenues	0	0	0

Rule Title: 45CSR25 - "Control of Air Pollution from Hazardous Waste Treatment, Storage and Disposal Facilities"

3. Explanation of above estimates (including long-range effect):
Please include any increase or decrease in fees in your estimated total revenues.

The above estimates reflect that there will be no anticipated changes in costs to administer this rule.

MEMORANDUM

Please identify any areas of vagueness, technical defects, reasons the proposed rule **would not** have a fiscal impact, and/or any special issues **not** captured elsewhere on this form.

Date: 6/8/05

Signature of Agency Head

FILED
2009 JUN 10 AM 11:22
OFFICE WEST VIRGINIA
SECRETARY OF STATE

TITLE 45
LEGISLATIVE RULE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY

SERIES 25
CONTROL OF AIR POLLUTION FROM HAZARDOUS WASTE TREATMENT, STORAGE AND DISPOSAL FACILITIES

§45-25-1. General.

1.1. Scope.

1.1.a. This rule establishes and adopts a program of regulation over air emissions and emission standards for the treatment, storage and disposal of hazardous waste promulgated by the United States Environmental Protection Agency (U.S. EPA) pursuant to the Resource Conservation and Recovery Act, as amended (RCRA). This rule codifies general procedures and criteria to implement emission standards set forth in the 40 CFR Parts 260, 261, 262, 264, 265, 266, 270 and 279 as listed in Table 25-A. The Secretary hereby adopts these standards by reference. The Secretary also adopts associated reference methods, performance specifications and other test methods which are appended to these standards.

1.1.b. The purpose of this rule is to achieve and maintain such levels of air quality that will protect the public health and safety and the environment from the effects of improper, inadequate, or unsound treatment, storage, or disposal of hazardous waste. Further, all persons engaged in the treatment, storage, or disposal of hazardous waste shall give careful consideration to the effects of the resultant emissions on the air quality or the areas affected by such any hazardous waste or constituent thereof in such quantities as to cause ambient air concentrations which may be injurious to human health or welfare which would interfere with the enjoyment of life or property.

1.1.c. Neither compliance with the provisions of this rule nor the absence of specific language to cover particular situations constitutes approval or implies consent or condonement of any emission which is released in any locality in a manner or amount as to cause or contribute to statutory air pollution. Neither does it exempt nor excuse any person from complying with other applicable laws, ordinances, regulations, or orders of governmental entities having jurisdiction over hazardous waste treatment, storage or disposal facilities.

1.1.d. This rule is promulgated pursuant to W.Va. Code §§22-18-1 et seq., and 22-5-1 et seq. Recognizing that each article has its own enforcement sections, it is the intent of the Secretary that enforcement shall be implemented in accordance with W.Va. Code §22-18-1 et seq., where practicable.

1.1.e. Permit applications shall be processed in accordance with the permitting procedures as set forth in W.Va. Code §22-18-1 et seq., 33CSR20, and this rule.

1.2. Authority. -- W.Va. Code §§22-5-4 and 22-18-1 et seq.

1.3. Filing Date. -- ~~May 8, 2009~~.

1.4. Effective Date. -- ~~June 1, 2009~~.

1.5. Incorporation By Reference.

1.5.a. Federal Counterpart Regulation. The Secretary has determined that a federal

counterpart regulation exists, and in accordance with the Secretary's recommendation, with limited exception, this rule incorporates by reference the provisions contained in 40 CFR Parts 260, 261, 262, 264, 265, 266, 270 and 279 as listed in Table 25-A, effective ~~June 1, 2008~~ June 1, 2009.

1.5.b. This rule incorporates by reference the provisions contained in 33CSR20, "Hazardous Waste Management System" that are in effect on the date this rule becomes effective, except for any provision in 33CSR20 which incorporates by reference the Code of Federal Regulations.

1.6. Former Rules. -- This legislative rule amends 45CSR25 "To Prevent and Control Air Pollution From Hazardous Waste Treatment, Storage, or Disposal" which was filed ~~April 23, 2008~~ May 8, 2009, and which became effective ~~June 1, 2008~~ June 1, 2009.

§45-25-2. Definitions.

2.1. "Air Pollutants" means solids, liquids, or gases which, if discharged into the air, may result in statutory air pollution.

2.2. "Air Pollution", "statutory air pollution" has the meaning ascribed to it in W.Va. Code §22-5-2.

2.3. "Air Pollution Control Equipment" means any equipment used for collecting or converting hazardous waste emissions for the purpose of preventing or reducing emissions of these materials into the open air from hazardous waste treatment, storage, or disposal facilities.

2.4. "Best Available Control Technology" or "BACT", means an emission standard based on the maximum degree of reduction for each pollutant which would be emitted from any hazardous waste treatment, storage or disposal facility which the Secretary, on a case-by-case basis, taking into account energy, environmental and economic impacts and other costs, determines is achievable for the facility through application of production processes or available methods, systems, or techniques. If the Secretary determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard or combination thereof may be prescribed instead to satisfy the requirement for the application of best available control technology. The standard shall, to the extent possible, set forth the emission reduction achievable by implementation of the design, equipment, work practice or operational standard, and shall provide for compliance by means which achieve equivalent results.

2.5. "CAA" means the federal Clean Air Act, as amended; 42 U.S.C. §7401 et seq.

2.6. "CFR" means the Code of Federal Regulations published by the Office of the Federal Register, National Archives and Records Service, General Services Administration.

2.7. "CWA" means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act), Public Law 92-500, as amended by Public Law 95-217 and Public Law 95-576; 33 U.S.C. §1251 et seq.

2.8. "Department of Environmental Protection" or "DEP" means that Department of the West Virginia Department of Environmental Protection which is created by the provisions of W.Va. Code §22-1-1 et seq.

2.9. "Facility mailing list" means the mailing list for a facility maintained by U.S. EPA in accordance with 40 CFR §124.10(c)(1)(ix).

2.10. "Hazardous waste" means a hazardous waste as defined in 40 CFR §261.3.

2.11. "Infectious Medical Waste" shall have the meaning ascribed to it in 64CSR56 "Infectious

Medical Waste", (July 1, 1999), promulgated by the West Virginia Division of Health.

2.12. "Particulate Matter" means any material, except uncombined water, that exists in a finely divided form as a liquid or solid.

2.13. "Pathological Waste " means waste material consisting of only human or animal remains, anatomical parts or tissue, the bags or containers used to collect and transport the waste material, and animal bedding (if applicable).

2.14. "RCRA" means the federal Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act, as amended; 42 U.S.C. §6901 et seq.

2.15. "RCRA Permit" means "West Virginia hazardous waste permit". The following additional requirements shall apply to obtain a hazardous waste management permit in West Virginia. All references in 40 CFR Part 270 to 40 CFR Part 124 shall be deemed to be references to the applicable provisions of subsections 5.1 through 5.14. To the extent of any inconsistency with 40 CFR Part 270, the specific provisions contained herein shall govern.

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

2.17. "Steady State" means that all conditions at all points in the thermal treatment process are in stable, normal operating conditions.

2.18. "U.S. EPA" means the United States Environmental Protection Agency.

2.19. Other words or phrases not herein defined and used in this rule shall have the meaning as ascribed in W.Va. Code §§22-5-1 et seq., or 22-18-1 et seq., or 33CSR20 "Hazardous Waste Management System" governing the State Hazardous Waste Management Act.

§45-25-3. Adoption of Standards.

3.1. The Secretary hereby adopts and incorporates by reference the definitions, lists, tables, appendices, conditions, or requirements from 33CSR20 "Hazardous Waste Management Rule", effective ~~June 1, 2008~~ June 1, 2009, except for any provisions in 33CSR20 which incorporate by reference the Code of Federal Regulations. In case of a conflict between the Division of Air Quality and the Division of Water and Waste Management as to whether a material is a waste and if so, whether the material is a hazardous waste, the Secretary has final administrative authority to resolve the conflict.

3.2. Unless otherwise indicated, the Secretary hereby adopts and incorporates by reference the provisions contained in 40 CFR Parts 260, 261, 262, 264, 265, 266, 270 and 279 as listed in Table 25-A, effective June 1, 2008, with the following modifications:

3.2.a. Whenever the term "United States" is used, it shall also mean the State of West Virginia;

3.2.b. Whenever the terms "Administrator," "Regional Administrator," "Assistant Administrator for Solid Waste and Emergency Response" or "Secretary" are used, the term means the Secretary of the West Virginia Department of Environmental Protection;

3.2.c. Whenever the term "Environmental Protection Agency" is used the term also means the West Virginia Department of Environmental Protection; and

3.2.d. The distance provisions of 40 CFR §265.382 apply only to the open burning or open detonation of military explosives in a manner that presents an uncontrolled fragment release hazard. The applicable distance provisions of the American Table of Distances for Commercial

Explosives, effective June 19, 1991, and of the Department of Defense Contractors Safety Manual for Ammunition and Explosives (DOD 4145.26-M), as amended April 11, 1988, apply otherwise.

§45-25-4. Requirements.

4.1. Owners and operators of hazardous waste treatment, storage, and disposal facilities regulated by the provisions of this rule shall maintain a list of all permits or construction approvals received or applied for under any of the following programs and their counterpart programs administered by the Secretary, where appropriate:

4.1.a. Hazardous Waste Management Program under RCRA and 33CSR20;

4.1.b. Prevention of Significant Deterioration (PSD) Program under 45CSR14 or the CAA;

4.1.c. Nonattainment program under 45CSR19 or the CAA;

4.1.d. National Emission Standards for Hazardous Air Pollutants (NESHAP) preconstruction approval under 45CSR34 or the CAA;

4.1.e. Standards of Performance for New Stationary Sources under 45CSR16 or the CAA; and

4.1.f. Other relevant air pollution control permits including local permits.

4.2. Owners and operators of hazardous waste treatment, storage and disposal facilities covered under this rule must comply with the personnel training requirements as specified by 40 CFR §264.16. An outline of the training program and a description of how the training program is designed to meet actual job tasks must be submitted to the Secretary with Part B of the permit application.

4.3. Owners and operators of hazardous waste tanks, containers, surface impoundments, landfills, waste piles, land treatment, miscellaneous units, thermal treatment units, incinerators, and boiler and industrial furnace facilities must design, construct, maintain, and operate these facilities to minimize the possibility of a fire, explosion, or any unplanned, sudden, or non-sudden release of hazardous waste constituents to the air which could threaten human health or the environment.

4.4. Owners and operators of hazardous waste management facilities that treat, store, or dispose of ignitable or reactive wastes, or mix incompatible waste or incompatible wastes and other materials, must prevent reactions which:

4.4.a. Produce uncontrolled toxic mists, fumes, dust or gases in sufficient quantities to threaten human health or the environment, and

4.4.b. Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosion.

4.5. The owners and operators of the hazardous waste treatment, storage and disposal facilities shall manage all hazardous waste placed in a container in accordance with the applicable air emission requirements as listed in Table 25-A.

4.6. The owners and operators of the hazardous waste treatment, storage and disposal facilities shall manage all hazardous waste placed in a tank in accordance with the applicable air emission requirements as listed in Table 25-A.

4.7. The owners and operators of the hazardous waste treatment, storage and disposal facilities shall manage all hazardous waste placed in a surface impoundment in accordance with the applicable air emission requirements as listed in Table 25-A.

4.8. The owners and operators of the hazardous waste treatment, storage and disposal facilities shall manage all hazardous waste placed in a miscellaneous unit in accordance with the applicable air pollution standard requirements of 40 CFR 264 including but not limited to subparts AA, BB, and CC.

4.9. A hazardous waste pile must be fully enclosed or otherwise designed to prevent dispersal of the waste by wind.

4.10. Hazardous waste landfills must be covered or otherwise managed to prevent wind dispersal of the waste.

4.11. All landfills, surface impoundments, and land treatment facilities shall be located, designed, constructed, operated, maintained, and closed in a manner that will assure protection of human health and the environment. Protection of human health and the environment shall include prevention of adverse effects on air quality considering:

4.11.a. The volume and physical and chemical characteristics of the waste in the facility, including its potential for volatilization and wind dispersal;

4.11.b. The existing quality of the air, including other sources of contamination and their cumulative impact on the air;

4.11.c. The potential for health risks caused by human exposure to waste constituents;

4.11.d. The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

4.11.e. The potential for interference with the enjoyment of life or property; and

4.11.f. The persistence and permanence of the potential adverse effects.

4.12. Owners and operators of hazardous waste treatment, storage, or disposal facilities shall utilize best available control technology ("BACT") to limit the discharge of hazardous waste constituents to the atmosphere during:

4.12.a. Process turn-arounds;

4.12.b. Cleaning of process equipment;

4.12.c. Planned process shutdowns; and

4.12.d. Tank truck, railroad tank car, and barge cleaning.

4.13. The Secretary may, on a case-by-case basis, establish performance standards for hazardous waste incinerators for control of emissions of metals, hydrogen halides, and elemental halogen, based on a finding that the standards are necessary to limit the emission rates of these constituents to levels which do not pose an unacceptable risk to human health and environment. The Secretary may require the following data from the permit applicant:

4.13.a. Emissions of POHCs, hazardous combustion by-products, metals and hydrogen halides, including:

4.13.a.1. Mass emission rates from the stack, and

4.13.a.2. Concentration in the gas stream exiting the stack; and

4.13.b. Air dispersion estimates for those substances, including:

4.13.b.1. Meteorological data, and

4.13.b.2. Description of the air dispersion models, and

4.13.b.3. Assumptions underlying the air dispersion models used; and

4.13.c. Expected human and environmental exposure, including:

4.13.c.1. Topographic considerations,

4.13.c.2. Population distributions,

4.13.c.3. Population activities, and

4.13.c.4. Modes, intensity, and duration of exposure; and

4.13.d. Consequences of exposure, including:

4.13.d.1. Dose-response curves for carcinogens,

4.13.d.2. Health effects based on human or animal studies for other toxic constituents,

4.13.d.3. Potential for accumulation of toxic constituents in the human body, and

4.13.d.4. Statements of expected risk to individuals or populations.

4.14. Emergency Permit. -- Notwithstanding any other provision in 40 CFR §270.61, in the event the Secretary finds an imminent and substantial danger to human health or the environment, the Secretary may issue a temporary permit to a facility to allow treatment, storage, or disposal of hazardous waste at a non-permitted facility, or hazardous waste not covered by the permit for a facility with an effective permit. This emergency permit:

4.14.a. May be oral or written. If oral, it shall be followed within five (5) days by written emergency permit;

4.14.b. Shall not exceed ninety (90) days in duration;

4.14.c. Shall clearly specify the hazardous wastes to be received, and the manner and location of the treatment, storage, or disposal;

4.14.d. May be terminated by the Secretary at any time without prior notice if it is determined that termination is appropriate to protect human health or the environment; and

4.14.e. Shall be accompanied by public notice as described under section 7 and include the following:

4.14.e.1. Name and address of the office granting the emergency authorization,

4.14.e.2. Name and location of the permitted hazardous waste management facility,

4.14.e.3. A brief description of the wastes involved,

4.14.e.4. A brief description of the action authorized and reasons for authorizing it,

4.14.e.5. Duration of the emergency permit; and

4.14.f. Shall incorporate, to the extent possible and not inconsistent with the emergency situation, all applicable requirements of this rule.

4.15. Pathological Waste Incinerators. -- The owner and operator of a pathological waste incinerator is not subject to the requirements of this rule unless the incinerator is charged with any mixture of infectious medical waste and hazardous waste listed in 40 CFR 261 Subpart D. The owner and operator of a pathological waste incinerator shall design, construct and operate the facility in accordance with all applicable rules promulgated by the Secretary including, but not limited to, this rule, 45CSR6, 45CSR13, 45CSR14, 45CSR18, 45CSR19, 45CSR30 and 45CSR34, as applicable.

§45-25-5. Permit Process.

5.1. Pre-application Public Meeting and

Notice

5.1.a. Applicability. – The requirements of subsection 5.1 shall apply to West Virginia hazardous waste management Part B permit applications seeking initial permits for hazardous waste management units. These requirements shall also apply to West Virginia hazardous waste management Part B permit applications seeking renewal of permits for hazardous waste management units, where the renewal application is proposing a significant change in facility operations. A "significant change" is any change that would qualify as a Class 3 permit modification pursuant to 40 CFR §270.42. These requirements do not apply to permit modifications under 40 CFR §270.42 or to applications that are submitted for the sole purpose of conducting post-closure activities or post-closure activities and corrective action at a facility.

5.1.b. Prior to the submission of a West Virginia hazardous waste management Part B permit application for a facility, the applicant must hold at least one meeting with the public in order to solicit questions from the community and inform the community of proposed hazardous waste management activities. The applicant shall post a sign-in sheet or otherwise provide a voluntary opportunity for attendees to provide their names and addresses.

5.1.c. The applicant shall submit a summary of the meeting, along with the list of attendees and their addresses developed under subdivision 5.1.b, and copies of any written comments or materials submitted at the meeting, to the Secretary as a part of the Part B application, in accordance with 40 CFR §270.14(b).

5.1.d. The applicant must provide public notice of the pre-application meeting at least thirty (30) days prior to the meeting. The applicant must maintain, and provide to the Secretary upon request, documentation of the notice.

5.1.d.1. The applicant shall provide public notice in all of the following forms:

5.1.d.1.A. A newspaper advertisement. – The applicant shall publish a notice, fulfilling the requirements in paragraph 5.1.d.2, in a newspaper of general circulation in the county or equivalent jurisdiction that hosts the proposed location of the facility. In addition, the Secretary shall instruct the applicant to publish the notice in newspapers of general circulation in adjacent counties or equivalent jurisdictions, where the Secretary determines that the publication is necessary to inform the affected public. The notice must be published as a display advertisement;

5.1.d.1.B. A visible and accessible sign. -- The applicant shall post a notice on a clearly marked sign at or near the facility, fulfilling the requirements in paragraph 5.1.d.2. If the applicant places the sign on the facility property, then the sign must be large enough to be readable from the nearest point where the public would pass by the site;

5.1.d.1.C. A broadcast media announcement. – The applicant shall broadcast a notice, fulfilling the requirements in paragraph 5.1.d.2, at least once on at least one local radio station or television station. The applicant may employ another medium with prior approval of the Secretary; and

5.1.d.1.D. A notice to the permitting agency. -- The applicant shall send a copy of the newspaper notice to the Secretary and the Secretary shall forward copies to the appropriate units of State and local government having jurisdiction over the area where the facility is, or is proposed to be, located; and to each state agency having any authority under State law with respect to the construction or operation of the facility.

5.1.d.2. The notices required under paragraph 5.1.d.1 must include:

5.1.d.2.A. The date, time, and location of the meeting;

5.1.d.2.B. A brief description of the purpose of the meeting;

5.1.d.2.C. A brief description of the facility and proposed operations, including the address or a map (e.g., a sketched or copied street map) of the facility location;

5.1.d.2.D. A statement encouraging people to contact the facility at least seventy-two (72) hours before the meeting if they need special access to participate in the meeting; and

5.1.d.2.E. The name, address, and telephone number of a contact person for the applicant.

5.2. Public Notice Requirements at the Application Stage.

5.2.a. Applicability. -- The requirements of subsection 5.2 shall apply to all West Virginia hazardous waste management Part B permit applications seeking initial permits for hazardous waste management units. These requirements shall also apply to hazardous waste management Part B permit applications seeking renewal of permits for hazardous waste management units upon the expiration of the existing permit. These requirements do not apply to permit modifications under 40 CFR §270.42 or permit applications submitted for the sole purpose of conducting post-closure activities or post-closure activities and corrective action at a facility.

5.2.b. Notification at application submittal. -- The Secretary shall provide public notice as required in subsection 5.2 when a Part B permit application has been submitted. The Secretary shall provide public notice to:

5.2.b.1. The applicant;

5.2.b.2. All persons on a mailing list developed under subparagraph 5.8.d.1.D;

5.2.b.3. The appropriate units of state and local government having jurisdiction over the area where the facility is proposed to be located; and to each state agency having any authority under State law with respect to the construction or operation of the facility, that a Part B permit application has been submitted to the Secretary and is available for review; and

5.2.b.4. Any person otherwise entitled to receive notice under subdivision 5.2.b may waive the right to receive notice for any classes and categories of permits.

5.2.c. The notice shall be published within a reasonable period of time after the application is received by the Secretary. The notice must include:

5.2.c.1. The name and telephone number of the applicant's contact person;

5.2.c.2. The name and telephone number of the Secretary's contact office, and a mailing address to which information, opinions, and inquiries may be directed throughout the permit review process;

5.2.c.3. An address to which people can write in order to be put on the facility mailing list;

5.2.c.4. The location where copies of the permit application and any supporting documents can be viewed and copied;

5.2.c.5. A brief description of the facility and proposed operations, including the address or a map (e.g., a sketched or copied street map) of the facility location on the front page of the notice; and

5.2.c.6. The date that the application was submitted.

5.2.d. Concurrent with the notice required

under subdivision 5.2.b, the Secretary must place the permit application and any supporting documents in a location accessible to the public in the vicinity of the facility or at the Secretary's office.

5.3. Information Repository.

5.3.a. Applicability. -- The following requirements apply to all applicants seeking West Virginia hazardous waste management permits for hazardous waste management units.

5.3.b. The Secretary may assess the need, on a case-by-case basis, for an information repository. When assessing the need for an information repository, the Secretary shall consider a variety of factors, including: the level of public interest; the type of facility; the presence of an existing repository; and the proximity to the nearest copy of the administrative record. If the Secretary determines, at any time after submittal of a permit application, that there is a need for a repository, then the Secretary shall notify the facility that it must establish and maintain an information repository.

5.3.c. The information repository shall contain all documents, reports, data, and information deemed necessary by the Secretary to fulfill the purposes for which the repository is established. The Secretary shall have the discretion to limit the contents of the repository.

5.3.d. The information repository shall be located and maintained at a site chosen by the facility. If the Secretary finds the site unsuitable for the purposes and persons for which it was established, due to problems with the location, hours of availability, access, or other relevant considerations, then the Secretary shall specify a more appropriate site.

5.3.e. The Secretary shall specify requirements for informing the public about the information repository. At a minimum, the Secretary shall require the facility to provide a written notice about the information repository to all individuals on the facility mailing list.

5.3.f. The facility owner/operator shall be responsible for maintaining and updating the repository with appropriate information throughout a time period specified by the Secretary. The Secretary may close the repository at his or her discretion, based on the factors in subdivision 5.3.b.

5.4. Application for a Permit.

5.4.a. Any person who requires a permit shall complete, sign, and submit to the Secretary an appropriate application. Applications are not required for hazardous waste permits by rule pursuant to 40 CFR §270.60. The Secretary shall not begin the processing of a permit until the applicant has fully complied with the application requirements for that permit. Permit applications must comply with the signature and certification requirements of 40 CFR §270.11.

5.4.b. The Secretary shall review every application for completeness. Each application submitted by a new hazardous waste management facility, should be reviewed for completeness by the Secretary within 30 days of its receipt. Each application submitted by an existing hazardous waste management facility (both Part A and Part B of the application), should be reviewed for completeness within 60 days of receipt. Upon completing the review, the Secretary shall notify the applicant in writing whether the application is complete. If the application is incomplete, the Secretary shall list the information necessary to make the application complete. When the application is for an existing hazardous waste management facility, the Secretary shall specify in the notice of deficiency a date for submitting the necessary information. The Secretary shall notify the applicant that the application is complete upon receiving this information. After the application is completed, the Secretary may request additional information from the applicant but only when necessary to clarify, modify or supplement

previously submitted materials. The request for additional information will not render an application incomplete.

5.4.c. If the applicant fails or refuses to correct deficiencies in the application, the permit may be denied and appropriate enforcement actions may be taken under the applicable statutory provisions of W.Va. Code §§22-18-1 et seq. and 22-5-1 et seq.

5.4.d. If the Secretary decides that a site visit is necessary for any reason in conjunction with the processing of an application, he or she shall notify the applicant and a date shall be scheduled.

5.4.e. The effective date of an application is the date on which the Secretary notifies the applicant that the application is complete as provided for in subdivision 5.4.b.

5.4.f. For each application the Secretary shall, no later than the effective date of the application, prepare and mail to the applicant a project decision schedule. The schedule shall specify target dates by which the Secretary intends to:

5.4.f 1. Prepare a draft permit;

5.4.f.2. Give public notice;

5.4.f.3. Complete the public comment period, including any public hearing; and

5.4.f.4. Issue a final permit.

5.5. Modification, Revocation and Reissuance, or Termination of Permits.

5.5.a. Permits may be modified, revoked and reissued, or terminated either at the request of an interested person (including the permittee) or upon the Secretary's initiative. However, permits may only be modified, revoked and reissued, or terminated for the reasons specified in 40 CFR §§270.41 or 270.43. All requests shall be in writing and contain facts or reasons supporting the request.

5.5.b. If the Secretary decides the request is not justified, he or she shall send the requester a brief written response giving a reason for the decision. Denials of requests for modification, revocation and reissuance, or termination are not subject to public notice, comment, or hearings. Denials by the Secretary may be appealed to the Air Quality Board in accordance with W.Va. Code §22B-1-1 et.seq.

5.5.b.1. If the Secretary tentatively decides to modify or revoke and reissue a permit under 40 CFR §§270.41 or 270.42(c), he or she shall prepare a draft permit under subsection 5.6 incorporating the proposed changes. The Secretary may request additional information and, in the case of a modified permit, may require the submission of an updated application. In the case of a revoked and reissued permit, the Secretary shall require the submission of a new application.

5.5.b.2. In a permit modification, only those conditions to be modified shall be reopened when a new draft permit is prepared. All other aspects of the existing permit shall remain in effect for the duration of the unmodified permit. When a permit is revoked and reissued, the entire permit is reopened just as if the permit had expired and was being reissued. During any revocation and reissuance proceeding the permittee shall comply with all conditions of the existing permit until a new final permit is reissued.

5.5.b.3. "Classes 1 and 2 Modifications" as defined in 40 CFR §§270.42(a) and (b) are not subject to the requirements of this subsection.

5.5.c. If the Secretary tentatively decides to terminate a permit under 40 CFR §270.43, he or she shall issue a Notice of Intent to Terminate. A Notice of Intent to Terminate is a type of draft permit which follows the same procedures as any

draft permit prepared under subsection 5.6.

5.6. Draft Permits.

5.6.a. Once an application is complete, the Secretary shall tentatively decide whether to prepare a draft permit or to deny the application.

5.6.b. If the Secretary tentatively decides to deny the permit application, he or she shall issue a Notice of Intent to Deny. A Notice of Intent to Deny the permit application is a type of draft permit which follows the same procedures as a draft permit. If the Secretary's final decision is that the tentative decision to deny the permit application was incorrect, he or she shall withdraw the Notice of Intent to Deny and proceed to prepare a draft permit.

5.6.c. If the Secretary tentatively decides to issue a permit, he or she shall prepare a draft permit that contains the following information:

5.6.c.1. All conditions under 40 CFR §§270.30 and 270.32;

5.6.c.2. All compliance schedules under 40 CFR §270.33;

5.6.c.3. All monitoring requirements under 40 CFR §270.31; and

5.6.c.4. Standards for treatment, storage, disposal and other permit conditions under 40 CFR §270.30.

5.6.d. All draft permits prepared by the Secretary shall be accompanied by a fact sheet if required under subdivision 5.7.a and shall be based on the administrative record, publicly noticed and made available for public comment.

5.6.e. In addition to the requirements of subsection 5.6, public notice of the preparation of a draft permit shall be given by the methods contained in 40 CFR §§270.2, 270.14, 270.30, 270.62, and 270.66.

5.7. Fact Sheet.

5.7.a. A fact sheet shall be prepared for each draft permit which the Secretary finds is the subject of wide-spread public interest or raises major issues. The fact sheet shall briefly set forth the principal facts and the significant factual, legal, and methodological and policy questions considered in preparing the draft permit. The Secretary shall send the fact sheet to the applicant and, on request, to any other person.

5.7.b. The fact sheet shall include when applicable:

5.7.b.1. A brief description of the type of facility or activity which is the subject of the draft permit;

5.7.b.2. The type and quantity of waste, fluids, or pollutants which are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged;

5.7.b.3. A brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record;

5.7.b.4. Reasons why any requested variances or alternatives to required standards do or do not appear justified;

5.7.b.5. A description for reaching a final decision on a draft permit including;

5.7.b.5.A. The beginning and the ending dates of the comment period and the address where comments will be received;

5.7.b.5.B. Procedures for requesting a hearing and the nature of that hearing; and

5.7.b.5.C. Any other procedures by which the public may participate in the final decision; and

5.7.b.6. Name and telephone number of a person to contact for additional information.

5.8. Public Notice of Permit Actions and Public Comment Period.

5.8.a. Scope. The Secretary shall give public notice if the following actions have occurred:

5.8.a.1. A draft permit has been prepared; and

5.8.a.2. A hearing has been scheduled.

5.8.b. No public notice is required when a request for permit modification, revocation and reissuance, or termination is denied under subsection 5.5. Written notice of that denial shall be given to the requester and to the permittee.

5.8.c. Timing. -- Public notice of the preparation of a draft permit, including a Notice of Intent to Deny a Permit Application, required under subdivision 5.8.a shall allow at least forty-five (45) days for public comment. Public notice of a public hearing shall be given at least thirty (30) days before the hearing. Public notice of the hearing may be given at the same time as public notice of the draft permit and the two notices may be combined.

5.8.d. Methods. -- Public notice of activities described in subdivision 5.8.a shall be provided by the following methods:

5.8.d.1. By mailing a copy of a notice to the following persons (any person otherwise entitled to receive notice under this paragraph may waive his or her rights to receive notice for any classes and categories of permits):

5.8.d.1.A. The applicant;

5.8.d.1.B. Any other agency which the Secretary knows has issued or is required to issue a RCRA, UIC, PSD (or other permit under the Clean Air Act), W.Va. Code §22-5-1 et. seq., NPDES, 33 U.S.C. §1344, or sludge management permit for the same facility or activity;

5.8.d.1.C. Federal and state agencies with jurisdiction over fish, shell fish and wildlife resources and over coastal zones management plans, the advisory council on historic preservation, and the state historic preservation office, as applicable;

5.8.d.1.D. Persons on a mailing list developed by:

5.8.d.1.D.i. Including those who request in writing to be on the list;

5.8.d.1.D.ii. Soliciting persons for "area lists" from participants in past permit proceedings in that area; and

5.8.d.1.D.iii. Notifying the public of the opportunity to be put on the mailing list through periodic publication in the public press and in regional and state funded newsletters, environmental bulletins, or state law journals. The Secretary may update the mailing lists from time to time by requesting written indications of continued interest from those listed. The Secretary may delete from the lists the name of any person who fails to respond to the request;

5.8.d.1.E. To any unit of local government having jurisdiction over the area where the facility is proposed to be located; and

5.8.d.1.F. To each state agency having any authority under state law with respect to the construction or operation of the facility.

5.8.d.2. Publication of a notice in a daily or weekly major local newspaper of general circulation and broadcast over local radio stations;

5.8.d.3. In a manner constituting legal notice to the public under state laws; and

5.8.d.4. Any other method reasonably calculated to give actual notice of the action in question to the person potentially affected by it, including press releases or any other forum or medium to elicit public participation.

5.8.e. Public notices. -- All public notices issued shall contain the following minimum information:

5.8.e.1. Name and address of the office processing the permit action for which notice is being given;

5.8.e.2. Name and address of the permittee or the permit applicant and, if different, of the facility or activity regulated by the permit;

5.8.e.3. A brief description of the business conducted at the facility or activity described in the permit application or the draft permit;

5.8.e.4. Name, address and telephone number of a person from who interested persons may obtain further information, including copies of the draft permit and fact sheet and the application;

5.8.e.5. A brief description of the comment procedures required by subsections 5.9 and 5.10 and the time and place of any hearing that will be held, including a statement of procedures to request a hearing (unless a hearing has already been scheduled) and other procedures by which the public may participate in the final decision;

5.8.e.6. The location of the administrative record, the times that which the record shall be open for public inspection; and

5.8.e.7. Any additional information considered necessary or proper.

5.8.f. Public notices for hearings. -- In addition to the general public notice described in subdivision 5.8.e, the public notice of a hearing shall contain the following information:

5.8.f.1. Reference to the date of previous public notices relating to the permit;

5.8.f.1.A. Date, time, and place of the hearing; and

5.8.f.1.B. A brief description of the nature and purpose of the hearing, including the applicable rules and procedures;

5.8.g. In addition to the general public notice described in subdivision, all persons identified in subparagraphs 5.8.d.1.A, 5.8.d.1.B, and 5.8.d.1.C shall be mailed a copy of the fact sheet, the permit application and the draft permit, as applicable.

5.9. Public Comments and Requests for Public Hearing. -- During the public comment period provided under subsection 5.8, any interested person may submit written comments on the draft permit and may request a public hearing, if no hearing has already been scheduled. A request for a public hearing shall be in writing and state the nature of the issues proposed to be raised in the hearing. All comments shall be considered in making the final decision and shall be answered as provided in subsection 5.13.

5.10. Public Hearings.

5.10.a. The Secretary shall hold a public hearing whenever he or she finds, on the basis of requests, a significant degree of public interest in a draft permit.

5.10.b. The Secretary may also hold a public hearing at his or her discretion, whenever, for instance, a hearing might clarify one or more issues involved in the permit decision.

5.10.c. The Secretary shall hold a public hearing whenever he or she receives written notice of opposition to a draft permit and a request

for a hearing within forty-five (45) days of public notice under subdivision 5.8.c; whenever possible the Secretary shall schedule a hearing at a location in convenient to the nearest population center to the proposed facility.

5.10.d. Public notice of the hearing shall be given as specified in subsection 5.8.

5.10.e. Whenever a public hearing will be held the Secretary shall designate a presiding officer for the hearings who shall be responsible for its scheduling and orderly conduct.

5.10.f. Any person may submit oral or written statements and data concerning the draft permit. Reasonable limits may be set upon the time allowed for oral statements, and the submission of statements in writing may be required. The public comment period under subsection 5.8 shall automatically be extended to the close of any public hearing. The hearing officer may also extend the comment period by so stating at the hearing.

5.10.g. A tape recording or written transcript of the hearing shall be made available to the public.

5.11. Reopening of the Public Comment Period.

5.11.a. If any data, information, or arguments submitted during the public comment period appear to raise substantial new questions concerning a permit, the Secretary may take one or more of the following actions:

5.11.a.1. Prepare a new draft permit, appropriately modified, under subsection 5.6;

5.11.a.2. Prepare a revised fact sheet under subsection 5.7 and reopen the comment period; and

5.11.a.3. Reopen or extend the comment period under subsection 5.11 to give interested persons an opportunity to comment on the information or arguments submitted.

5.11.b. Comments filed during the reopened comment period shall be limited to the substantial new questions that caused its reopening. The public notice under subsection 5.8 shall define the scope of the reopening.

5.11.c. Public notice of any of the above actions shall be issued under subsection 5.8.

5.12. Issuance and Effective Date of Permit.

5.12.a. After the close of the public comment period on a draft permit the Secretary shall issue a final permit decision. The Secretary shall notify the applicant and each person who has submitted written comments or requested notice of the final permit decision. The notice shall include reference to the procedures for appealing a decision on the permit. A final permit decision means a final decision to issue, deny, modify, or revoke and reissue, or terminate a permit.

5.12.b. A final permit decision shall become effective thirty (30) days after the service of Notice of Decision unless:

5.12.b.1. A later effective date is specified in the decision;

5.12.b.2. Review is requested or an evidentiary hearing is requested; or

5.12.b.3. No comments requested change in the draft permit, in which case the permit shall become effective immediately upon issuance.

5.13. Response to Comments.

5.13.a. At the time that any final permit decision is issued, the Secretary shall issue a response to comments. This response shall:

5.13.a.1. Specify which provisions, if

any, of the draft permit have been changed in the final permit decision, and the reasons for the change; and

5.13.a.2. Briefly describe and respond to all significant comments on the draft permit or the permit application raised during the public comment period, or during any hearing.

5.13.b. The response to comments shall be available to the public.

5.14. Administrative Record.

5.14.a. The provisions of a draft permit prepared under subsection 5.6 shall be based on the administrative record consisting of:

5.14.a.1. The application and any supporting data furnished by the applicant;

5.14.a.2. The draft permit or notice of intent to deny the application or to terminate the permit;

5.14.a.3. The fact sheet if required;

5.14.a.4. All documents cited in the fact sheet; and

5.14.a.5. Other documents contained in the supporting file for the draft permit.

5.14.b. The Secretary shall base final permit decisions on the administrative record consisting of:

5.14.b.1. Administrative record for the draft permit;

5.14.b.2. All comments received during the public comment period provided under subsection 5.5, including any extension or reopening under subsection 5.11;

5.14.b.3. The tape or transcript of any hearing(s) held under subsection 5.10;

5.14.b.4. Any written material submitted at the hearing;

5.14.b.5. The response to comments required by subsection 5.13 which identified and supports any change made in the draft permit and any new material placed in the record under subsection 5.13;

5.14.b.6. Other documents contained in the supporting file for the permit;

5.14.b.7. An addendum to the fact sheet if needed; and

5.14.b.8. The final permit.

5.14.c. The administrative record shall be complete on the date the final permit is issued.

5.14.d. Material readily available at the issuing agency office or published material that is generally available, and that is included in the administrative record under subdivisions 5.14.a and 5.14.b, need not be physically included with the rest of the record as long as it is specifically referred to in the fact sheet or in the addendum to the fact sheet.

5.15. Public Access to Information.

5.15.a. Any record, report, or information and any permit, permit application, and related documentation within the Secretary's possession shall be available to the public for inspection and copying; provided, however, that upon a satisfactory showing to the Secretary that the records, reports, permit documentation, or information, or any part hereof would, if made public, divulge methods or processes or activities entitled to protection as trade secrets, the Secretary shall consider, treat, and protect the records as confidential pursuant to W.Va. Code §§22-18-1-et seq. and 22-5-1-et seq.

5.15.b. It shall be the responsibility of the person claiming any information as confidential

under the provision of subdivision 5.15.a to comply with the requirements of 45CSR31.

5.16. The provisions of 40 CFR §270.12 are excepted from incorporation by reference. Availability of information provided under this rule is controlled by the provisions of W.Va. Code, §§22-18-1 et seq. and 22-5-1 et seq.

§45-25-6. Exclusions and Exemptions.

6.1. Wastes and materials excluded in 33CSR20, are excluded from the requirements of this rule.

6.2. Except for recyclable materials exempt pursuant to 33CSR§20-3, hazardous wastes that are stored prior to recycling are subject to all applicable provisions of section 4.

6.3. The provisions of 62 Federal Register 52622-52642, dated October 8, 1997 (Project XL Site-Specific Rulemaking for Merck & Co., Inc., Stonewall Plant, Elkton, VA: Final Rule) are hereby excluded. These provisions include 40 CFR §§264.1030(d), 264.1050(g), 264.1080(e), 265.1030(c), 265.1050(f), and 265.1080(e).

6.4. Any pathological waste incinerator not subject to this rule under subsection 4.15 shall be subject to 45CSR6 or 45CSR18, as applicable.

§45-25-7. Application Fee.

7.1. Any person who applies for a permit for the construction and/or operation of an air emitting hazardous waste treatment, storage, or disposal facility shall submit as part of the application a money order or cashier's check payable to the "Air Pollution Control Fund" of the State Treasury. The fee shall be determined by the schedule set forth below:

Activity	Fee
a. Hazardous Waste Management Facilities:	
Treatment design capacity more than 1,000 ton/yr	$5,000
Treatment design capacity less than 1,000 ton/yr	$5,000
b. Class 2, 3 Modifications or Renewals of Permits and 40 CFR §270.41 for Hazardous Waste Management Facilities	$1,000
c. Class 1 Modifications	$ 500

7.2. These application fees shall be in addition to any fee required under any other rule of the West Virginia Department of Environmental Protection.

§45-25-8. Inconsistency Between Rules.

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

TABLE 25-A

Item No.	CFR No.	Part No.	Subpart No.	Title
1.	40 CFR	264, 265	O	Incinerator
2.	40 CFR	270.19	B	Specific Requirements for Incinerators
		270.42	D	Permit Modification at the Request of the Permittee
			Appendix	Appendix I
3.	40 CFR	270.62	F	Hazardous Waste Incinerator Permits
4.	40 CFR	270.72	G	Changes During Interim Status
5.	40 CFR	264	X	Miscellaneous Units
6.	40 CFR	270.23	B	Specific Requirements for Miscellaneous Units
7.	40 CFR	264, 265	AA	Air Emission Standards for Process Vents
8.	40 CFR	270.24	B	Specific Requirements for for Process Vents
9.	40 CFR	264, 265	BB	Air Emission Standards for Equipment Leaks
10.	40 CFR	270.25	B	Specific Requirements for Equipment Leaks
11.	40 CFR	264, 265 264.179, 265.178 264.200, 265.202 264.232, 265.231	CC I J K	Air Emission Standards for Tanks, Surface Impoundments, and Containers
		265	Appendix	Appendix VI
12.	40 CFR	270.14(b)(5)	A	General Information
13.	40 CFR	270.27	B	Specific Requirements for Air Emissions Control for Tanks, Surface Impoundments and Containers
14.	40 CFR	265	P	Thermal Treatment

Item No.	CFR No.	Part No.	Subpart No.	Title
15.	40 CFR	266	H	Hazardous Waste Burned in Boilers and Industrial Furnaces
			Appendices	Appendix 1 to XIII
16.	40 CFR	270.22	B	Specific Requirements for Boilers and Industrial Furnaces Burning Hazardous Wastes
17.	40 CFR	270.66	F	Permits for Boiler and Industrial Furnaces Burning Hazardous Waste
18.	40 CFR	279.23	C	On-site Burning In Space Heater
19.	40 CFR	279	G	Standards for Used Oil Burners Who Burn Off-Specification Used Oil for Energy Recovery
20.	40 CFR	270.14(b)(22)	B	Permit Application
21.	40 CFR	270.1(c)(2)(viii)(C)	A	General Information
22.	40 CFR	270.30(m)	B	Information repository
23.	40 CFR	261.6(c)(1)	A	Requirements for Recyclable Materials
		261.4		Exclusions
24.	40 CFR	261.38	D	Comparable/Syngas Fuel Exclusion
25.	40 CFR	262.34	C	Accumulation Time
26.	40 CFR	260.11	B	References
27.	40 CFR	264.15(b)(4)	B	General Inspection Requirement
28.	40 CFR	264.73(b)(6)	E	Operating Records
29.	40 CFR	270.235	I	Options for Incinerators and Cement and Lightweight Aggregate Kilns to Minimize Emissions from Startup, Shutdown, and Malfunction Events.

with Indian Tribal Governments (65 FR 67249, November 9, 2000) do not apply to this rule. In addition, This rule does not impose any enforceable duty or contain any unfunded mandate as described under Title II of the Unfunded Mandates Reform Act of 1995 (UMRA) (Public Law 104–4).

This action does not involve any technical standards that would require Agency consideration of voluntary consensus standards pursuant to section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113, section 12(d) (15 U.S.C. 272 note).

XII. Congressional Review Act

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

List of Subjects in 40 CFR Part 180

Environmental protection, Administrative practice and procedure, Agricultural commodities, Pesticides and pests, Reporting and recordkeeping requirements.

Dated: May 12, 2008.

Lois Rossi,

Director, Registration Division, Office of Pesticide Programs.

■ Therefore, 40 CFR chapter I is amended as follows:

PART 180—[AMENDED]

■ 1. The authority citation for part 180 continues to read as follows:

Authority: 21 U.S.C. 321(q), 346a and 371.

■ 2. In §180.960, the table is amended by adding alphabetically the following polymer to read as follows:

§ 180.960 Polymers; exemptions from the requirement of a tolerance.

* * * * *

Polymer	CAS No.
* * * *	*
2-oxepanone, homopolymer, minimum number average molecular weight (in amu) 52,000.	24980-41-4
* * * *	*

[FR Doc. E8–11980 Filed 6–3–08; 8:45 am]

BILLING CODE 6560–50–S

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 261 and 302

[EPA–HQ–RCRA–2006–0984, FRL–8575–4]

RIN 2050–AG15

Hazardous Waste Management System: Identification and Listing of Hazardous Waste; Amendment to Hazardous Waste Code F019

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is amending the list of hazardous wastes from non-specific sources (called F-wastes) by modifying the scope of the EPA Hazardous Waste No. F019 (Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process). The Agency is amending the F019 listing to exempt wastewater treatment sludges from zinc phosphating, when such phosphating is used in the motor vehicle manufacturing process, provided that the wastes are not placed outside on the land prior to shipment to a landfill for disposal, and the wastes are placed in landfill units that are subject to or meet the specified landfill design criteria. This final action on the F019 listing does not affect any other wastewater treatment sludges either from the chemical conversion coating of aluminum, or from other industrial sources. Additionally, this rule amends the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) list of Hazardous Substances and Reportable Quantities so that the F019 listing description is consistent with the amendment to F019 under regulations for hazardous wastes from non-specific sources.

DATES: This final rule is effective on July 7, 2008.

ADDRESSES: EPA has established a docket for this action under Docket ID No. EPA–HQ–RCRA–2006–0984. All documents in the docket are listed in the *http://www.regulations.gov* Web site. Although listed in the index, some information is not publicly available, i.e., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in *http://www.regulations.gov* or in hard copy at the OSWER Docket in the EPA Docket Center (EPA/DC), EPA West, Room 3334, 1301 Constitution Avenue, NW., Washington, DC 20460. The EPA/DC Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566–1744 and the telephone number for the RCRA Docket is (202) 566–0270.

FOR FURTHER INFORMATION CONTACT: For general information, review our Web site at *http://www.epa.gov/epaoswer/hazwaste.* For information on specific aspects of the rule, contact James Michael of the Office of Solid Waste (5304P), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, (E-mail address and telephone number: *michael.james@epa.gov,* (703) 308–8610).

SUPPLEMENTARY INFORMATION:

General Information

Who Is Potentially Affected by This Final Rule?

This final rule could directly affect businesses that generate certain wastes from the manufacturing of motor vehicles in the (1) automobile manufacturing industry and (2) light truck/utility vehicle manufacturing industry (NAICS codes 336111 and 336112, respectively). Other motor vehicle manufacturing industries (e.g., heavy duty truck or motor home manufacturing) are not affected by this rule. The wastes affected by this final rule are wastewater treatment sludges generated from the chemical conversion coating of aluminum using a zinc phosphating process and are currently listed as EPA Hazardous Waste No. F019 (see 40 CFR 261.31). These wastes will not be subject to the F019 listing, provided the wastes are not placed outside on the land prior to the shipment to a landfill for disposal and are either: disposed in a Subtitle D municipal or industrial landfill unit that is equipped with a single clay liner and is permitted, licensed or otherwise authorized by the state; or disposed in a landfill unit subject to, or otherwise meeting, the landfill requirements in § 258.40, § 264.301, or § 265.301. Impacts on potentially affected entities are summarized in Section VI of this Preamble. The "Regulatory Impact Analysis" (RIA) for this action presents an analysis of potentially affected entities and is available in the docket

established in support of this final rule. Entities potentially affected by this action are at least 7 current F019 generators within these two industries, consisting of four auto and three light truck/utility vehicle plants, and up to 42 other facilities in these two industries that may begin applying aluminum parts and could potentially generate regulated F019 waste without this final rule (based on 2005 Biennial Report data).[1] This action might also affect the 19 auto and light truck plants with prior F019 de-listings issued between 1997 and 2007, because this action could supplant their delisting status and conditions, depending upon the extent of state government voluntary adoption of this final rule.

To determine whether your facility is affected by this action, you should examine 40 CFR Parts 260 and 261 carefully, along with the final regulatory language amending Chapter I of the Code of Federal Regulations (CFR). This language is found at the end of this **Federal Register** notice. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding section entitled **FOR FURTHER INFORMATION CONTACT.**

Preamble Outline

I. Legal Authority
II. List of Acronyms
III. Summary of This Action
IV. Summary of the Proposed Action
A. Summary of Risk Assessment Approach Used
B. Proposed Landfill Liner Design Options
C. Proposed Options for Recordkeeping and Storage
V. Rationale for This Final Rule and Response to Comments
A. Landfill Liner Conditions
B. The Need for Storage Requirements
C. Recordkeeping Requirements
D. Scope and Applicability of the Exemption
E. Applicability to Recycled Waste
F. Interrelationship Between the Exemption and Delistings
G. Waste Analysis
H. Other Issues
VI. State Authorization
VII. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Designation and List of Hazardous Substances and Reportable Quantities
VIII. Relationship to Other Rules—Clean Water Act
IX. Statutory and Executive Order Reviews
A. Executive Order 12866: Regulatory Planning and Review
B. Paperwork Reduction Act
C. Regulatory Flexibility Act
D. Unfunded Mandates Reform Act
E. Executive Order 13132: Federalism
F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments
G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks
H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use
I. National Technology Transfer and Advancement Act
J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
K. Congressional Review Act

I. Legal Authority

The hazardous waste regulations are promulgated under the authority of Sections 2002 and 3001(b) and (f), 3004(d)–(m) and 3007(a) of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), as amended, most importantly by the Hazardous and Solid Waste Amendments of 1984 (HSWA), 42 U.S.C. 6912, 6921(b), 6924(d)–(m) and 6927(a). These statutes combined are commonly referred to as the "Resource Conservation and Recovery Act" (RCRA) and will be referred to as such for the remainder of this Notice.

Because EPA is amending the national listing of F019, EPA believes the appropriate statutory authority is that found in section 3001(b), rather that the authority in section 3001(f). RCRA section 3001(f) pertains solely to the exclusion of a waste generated at a particular facility in response to a petition. Accordingly, neither the procedures nor the standards established in that provision, or in EPA's regulations at 40 CFR 260.22 are applicable to this rulemaking.

Section 102(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. 9602(a) is the authority under which the CERCLA aspects of this rule are promulgated.

II. List of Acronyms

ACRONYMS

Acronym	Definition
CBI	Confidential Business Information.
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act.
CFR	Code of Federal Regulations.
DRAS	Delisting Risk Assessment Software.
EPA	Environmental Protection Agency.
ICR	Information Collection Request.
IWEM	Industrial Waste Management Evaluation Model.
MSWLF	Municipal Solid Waste Landfill.
NAICS	North American Industrial Classification System.
NTTAA	National Technology and Transfer Act.
OMB	Office of Management and Budget.
OSWER	Office of Solid Waste and Emergency Response.
PRA	Paperwork Reduction Act.
RCRA	Resource Conservation and Recovery Act.
RFA	Regulatory Flexibility Act.
RQ	Reportable Quantity.
UMRA	Unfunded Mandates Reform Act.

[1] EPA, in partnership with the States, biennially collects information regarding the generation, management, and final disposition of hazardous wastes regulated under RCRA. See the 2005 Biennial Report on the EPA Web site at *http://www.epa.gov/epaoswer/hazwaste/data/br05/index.htm.*

III. Summary of This Action

In this notice, EPA is promulgating regulations that amend the list of hazardous wastes from non-specific sources under 40 CFR 261.31 by modifying the scope of EPA Hazardous Waste No. F019. The revised listing will now read:

F019—Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process. Wastewater treatment sludges from the manufacturing of motor vehicles using a zinc phosphating process will not be subject to this listing at the point of generation if the wastes are not placed outside on the land prior to shipment to a landfill for disposal and are either: disposed in a Subtitle D municipal or industrial landfill unit that is equipped with a single clay liner and is permitted, licensed or otherwise authorized by the state; or disposed in a landfill unit subject to, or otherwise meeting, the landfill requirements in § 258.40, § 264.301 or § 265.301. For the purposes of this listing, motor vehicle manufacturing is defined in § 261.31(b)(4)(i) of this section and paragraph § 261.31(b)(4)(ii) of this section describes the recordkeeping requirements for motor vehicle manufacturing facilities.

The Agency is amending the F019 listing to exempt the wastewater treatment sludge generated from zinc phosphating, when zinc phosphating is used in the automobile assembly process, provided the waste are not placed outside on the land prior to shipment to a landfill for disposal and the waste is disposed in a landfill unit subject, or otherwise meeting, certain liner requirements. Wastes that meet these conditions will be exempted from the listing from their point of generation, and will not be subject to any RCRA Subtitle C management requirements for generation, storage, transport, treatment, or disposal (including the land disposal restrictions). The Agency is also requiring that the generator maintain records on site to show that the waste meets the conditions of the listing.

For the purposes of the F019 listing, motor vehicle manufacturing is defined to include the manufacture of automobiles and light trucks/utility vehicles (including light duty vans, pick-up trucks, minivans, and sport utility vehicles). The motor vehicle manufacturing industry incorporates aluminum into vehicle parts and bodies for the purpose of making them lighter-weight and thus more capable of increasing gas mileage. However, when aluminum is incorporated into the body of an automobile, the conversion coating step in the manufacturing process resulted in the generation of an RCRA-listed hazardous waste (F019) in the form of a wastewater treatment sludge from the conversion coating process. Wastewaters from the conversion coating of steel in the same industry do not generate a listed hazardous waste. By removing the regulatory controls under RCRA, EPA is facilitating the use of aluminum in motor vehicles. The Agency believes that the incorporation of aluminum will be advantageous to the environment since lighter-weight vehicles are capable of achieving increased fuel economy and associated decreased exhaust air emissions. These modifications to the F019 listing will not affect any other wastewater treatment sludges either from the chemical conversion coating of aluminum, or from other industrial sources.

The Agency is also promulgating conforming changes to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) list of Hazardous Substances and Reportable Quantities under 40 CFR 302.4 so that the F019 listing description is consistent with the changes to the F019 listing.

IV. Summary of the Proposed Action

On January 18, 2007 (72 FR 2219), the Agency proposed to amend the list of hazardous wastes from non-specific sources (called F-wastes) under 40 CFR 261.31 by modifying the scope of the EPA Hazardous Waste No. F019 (Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process). Specifically, the Agency proposed to amend the F019 listing to exempt wastewater treatment sludge generated from zinc phosphating, when zinc phosphating is used in the automobile assembly process and provided the waste is disposed in a landfill unit subject to certain liner design criteria. A summary of the proposed listing amendment is presented below. More detailed discussions are provided in the preamble to the proposed rule and in the background documents included in the docket for this rule.

A. Summary of Risk Assessment Approach Used

The Agency's risk assessment evaluated risks to human health and the environment from a landfill disposal scenario. (See the "Technical Support Document: Assessment of Potential Risks from Managing F019 Waste from the Motor Vehicle Manufacturing Industry" in the docket for this rulemaking for a detailed description of the analysis that the Agency performed, hereinafter referred to as the Technical Support Document.) EPA initially evaluated the potential risks posed by the volumes of F019 waste from the automobile manufacturers that might be disposed of in an unlined nonhazardous waste landfill, and then evaluated potential risks from disposal in landfills that use different liner technologies. The risk evaluation used several environmental fate, transport, and exposure/risk models: the Delisting Risk Assessment Software (DRAS), version 2.0, the Industrial Waste Management Evaluation Model (IWEM),[2] and EPA's Composite Model for Leachate Migration with Transformation Products (EPACMTP). See the Technical Support Document for a detailed description of the use of these models and their peer review.

EPA's Regional Offices, and certain states, use the DRAS model to determine whether to grant requests for delistings under 40 CFR 260.22. The RCRA regulations provide a form of relief for listed wastes through a site-specific process known as "delisting." Under this process, any person may petition EPA to remove its waste from regulation under the lists of hazardous wastes contained in Part 261. EPA has granted delistings to a number of motor vehicle manufacturing facilities that generate F019 wastes.

EPA used the DRAS model to calculate the levels of constituents in a waste that would not exceed the 10^{-5} risk level for carcinogens (i.e., less than or equal to an increased probability of developing cancer that is one in one hundred thousand).[3] For non-carcinogens, EPA used a "hazard quotient" (HQ) less than or equal to 1.0; the hazard quotient is the ratio of an individual's chronic daily exposure to a standard, such as the chronic reference dose.[4] Using the DRAS model, EPA evaluated risks from potential exposures

[2] IWEM is the groundwater modeling component of the *Guide for Industrial Waste Management*, used for recommending appropriate liner system designs for the management of RCRA Subtitle D industrial waste.

[3] These risk levels are consistent with those discussed in EPA's hazardous waste listing determination policy (see the discussion in a proposed listing for wastes from the dye and pigment industries, December 22, 1994; 59 FR 66072).

[4] The reference dose is "an estimate (with uncertainty spanning perhaps an order of magnitude) of a daily oral exposure for a chronic duration (up to a lifetime) to the human population (including sensitive subpopulations) that is likely to be without an appreciable risk of deleterious effects during a lifetime." See EPA's Integrated Risk Information System (IRIS).

to waste constituents resulting from releases to groundwater, air (both waste particles and volatile emissions), and surface water. See the Technical Support Document for a complete description of the scenario that was modeled using DRAS, the human health and ecological exposure pathways, and the data sources the Agency used as model inputs. For the purposes of this national rulemaking, EPA chose to adopt a conservative modeling approach in order to assure continued protection of human health and the environment. While this process was used to determine if these wastes would pose a risk if disposed of in unlined landfills, the Agency notes that facilities can petition for a separate site-specific delisting of their F019 wastestreams based on their chemical composition.

To identify waste constituents, EPA reviewed information from 13 motor vehicle manufacturing facilities' delisting petitions. This included information on the specific chemicals used in the conversion coating process, and the analytical data received from the 13 facilities' delisting petitions. The Agency evaluated the chemicals that were detected in the F019 sludge from the analyses conducted by the petitioners for approximately 240 chemical constituents. EPA's evaluation assumed that the waste volume equaled the volume resulting from 20 to 30 years of disposal into a landfill (90,000 cubic yards).

Based on the assessment of the groundwater pathway using DRAS, the Agency determined that two constituents (arsenic and nickel) had maximum detected values that, in certain scenarios, exceeded the 10^{-5} risk level or an HQ of 1. The DRAS modeling for unlined landfills yielded an estimated HQ of 3 for nickel, and an estimated individual excess lifetime cancer risk for arsenic of three in one hundred thousand. Thus, using conservative modeling and exposure assumptions, the Agency found that the projected levels for these two constituents could exceed these risk levels by up to a factor of three.

The potential risks found by the DRAS modeling were from the groundwater exposure pathway, therefore, units with liner systems should dramatically lessen releases to groundwater. DRAS does not have an option to model the impact of liners on landfill releases. To examine the potential impact of liners, the Agency compared the levels calculated by the Industrial Waste Management Evaluation Model (IWEM), for clay-lined and composite-lined landfills. [5] The initial IWEM evaluation clearly showed that the use of a composite-lined landfill would result in risk levels for the two key constituents of concern, below 10^{-5} for arsenic and an HQ of less than 1 for nickel. EPA also referred to the modeling performed for lined landfills in the recent listing rule for dye and pigment production wastes to show that composite-lined landfills provided significant protection compared to an unlined unit (February 24, 2005, 70 FR 9138).

The IWEM results for a clay-lined unit also indicated that a single clay liner offers added protection compared to an unlined unit. For nickel, the risk level achieved by a single clay liner was approximately 3-fold less than the risk level for an unlined unit. For arsenic, the risk level achieved by a single clay liner was approximately 7-fold less than the level for an unlined unit. Given that the DRAS results for these two constituents exceeded these levels by only a factor of 3, EPA concluded that disposal in a landfill with a single clay liner would also be sufficiently protective.

B. Proposed Landfill Liner Design Options

Based on the modeling results, EPA proposed two landfill design options under which F019 sludge from motor vehicle manufacturers would not be hazardous. Under option one, EPA proposed that the landfill unit must meet the liner requirements for municipal solid waste landfills (MSWLFs) in 40 CFR 258.40 or other liner designs containing a composite liner.[6] Under option two, the Agency proposed to also allow disposal in state-permitted municipal and industrial solid waste landfills, provided the landfill unit includes at least a single clay liner (this option would also allow disposal in the types of landfill units allowed under option one, i.e., units equipped with composite liners). The Agency sought comment on whether option two would provide any significant regulatory relief over option one. MSWLFs are required to have composite liners (or performance based equivalents), except for "existing" units (i.e., generally units that existed prior to 1993). Thus, EPA believes that most MSWLF units are likely to have composite liners (or equivalents). The Agency solicited comment on whether option two would be straightforward to implement or whether it will raise implementation or compliance issues for the waste generator, such as the availability of state standards for liners in older landfills, and on any issues that might be raised for recordkeeping and documentation.

C. Proposed Options on Recordkeeping and Storage

In the proposal, EPA noted that disposal in a landfill subject to or meeting the landfill design requirements was a condition of the exemption, so that if a generator does not fulfill this condition, the sludges would be F019 listed wastes and subject to the applicable Subtitle C requirements. The Agency encouraged generators to properly store the wastes that are claimed to be nonhazardous wastes to ensure that improper releases do not occur. Generators wishing to qualify for the exemption from the F019 listing would be required to maintain records to show that their wastes are placed in a landfill unit that meets the specified liner requirements. The Agency proposed a flexible performance standard that would allow the generator to demonstrate that shipments of waste were received by an appropriate landfill unit through various means. The proposal stated that a generator could use contracts with landfills and shipping documents to demonstrate that the landfill owner/operator used units that met the liner design requirements: The generator could also use bills of lading, manifests, or invoices documenting delivery. The proposed regulatory text (§ 261.31(b)(4)(iii)) specified the necessary records.

The Agency requested comment on whether the proposed recordkeeping requirements should be made conditions of the exemption, rather than established as separate recordkeeping requirements. In addition, the Agency sought comment on whether additional requirements or conditions would be necessary to ensure that the waste is not improperly disposed or released prior to disposal. The Agency also asked for comment on possible regulatory language that might be used to specify that the waste be stored so as to minimize releases to the environment. The Agency sought any information as to the current and likely sludge management practices at motor vehicle manufacturers. The Agency noted that, if such information indicated generators are already handling the waste to

[5] A composite liner as defined in § 258.40 consists of a combination of a synthetic liner and an underlying compacted soil/clay liner.

[6] Disposal in hazardous waste landfills would also be allowed, because the regulations in §§ 264.301 and 265.301 include composite liners. Federal regulations for municipal solid waste landfills require that new units (and lateral expansions of existing units) meet design criteria for composite liners and leachate collection systems (or other approved performance standards).

minimize releases, the Agency would consider this when deciding whether storage conditions are necessary.

V. Rationale for This Final Rule and Response to Comments

While all of the commenters generally supported the exemption, they differed over the types of management and landfill conditions that are necessary for the exempt waste. Some commenters also suggested that the Agency expand the scope of the exemption in various ways. After reviewing the comments, the Agency has decided to promulgate the final rule with limited revisions to the proposed regulation. This section will describe the revisions to the rule, which encompass the Agency's decision on a number of options presented in the proposal. This section also provides responses to the key comments received on the proposal. More details of the Agency's responses are contained in the document entitled "Response to Comments Document: Amendment to Hazardous Waste Listing Code F019 (Final Rule)", which is in the docket for this rulemaking.

A. Landfill Liner Conditions

The proposed exemption was conditioned on the disposal of the waste in a landfill meeting certain liner design requirements. The proposal presented two options for the landfill liner design. Under option one, the landfill unit would have a liner system that meets, or is subject to, the design requirements for an MSWLF (§ 258.40) or a Subtitle C waste landfill (§§ 264.301 and 265.301). Option two would also allow the generator the option of disposing the waste in a state permitted/authorized Subtitle D landfill (municipal or industrial) that is equipped with a single clay liner. The Agency sought comment on whether the second option would provide significant additional regulatory relief, and whether it would provide any special compliance or implementation issues.

Most commenters stated that the exemption should allow disposal of the exempt waste in any clay-lined landfill, and not be restricted to disposal in landfills that would typically have composite liners. Some commenters specifically supported the second option, arguing that this would provide more flexibility for possible disposal sites, which might be important for generators in remote locations. Commenters noted that this would not raise any special implementation, compliance, or recordkeeping problems, because generators would rely on state permitting authorities to identify adequate landfills. Other commenters stated that the regulatory language of the exemption should not conflict with, but rather acknowledge, existing state regulations, e.g., it should allow disposal in a landfill unit "meeting state regulatory liner requirements." Another commenter stated that disposal should be limited to "permitted Subtitle C or D landfills."

The Agency has decided to adopt the second landfill liner option in the final rule. That is, the regulations will specify that the waste is exempt, provided the wastes are either disposed in a permitted Subtitle D (municipal or industrial) landfill unit that is equipped with at least a single clay liner, or in a unit that is subject to, or otherwise meets, the liner requirements for MSWLFs (§ 258.40) or hazardous waste landfills (§ 264.301 or § 265.301). The modeling performed for the proposed rule demonstrated that disposal of the waste in a landfill equipped with either a composite liner or a clay liner would be protective. The Agency believes that a clay liner is sufficiently protective and provides added regulatory flexibility for generators. As described in the proposed rule, the protective factor provided by a clay-lined unit compared to an unlined unit was sufficient to reduce risks from an unlined unit to below 10^{-5} risk level or an HQ of 1.

The Agency also notes that the modeling performed for clay-lined landfills in the recent listing for dye and pigment production wastes (February 24, 2005, 70 FR 9138) showed that the clay-lined units provided a similar level of risk reduction for metals released from a landfill (i.e., the clay-lined unit reduced risks for metals by a factor of 3.2 to 3.8 compared to an unlined unit).[7] These results provide further support that the margin of protection offered by a single clay liner is sufficient.

The final rule will require the generator to document that the wastewater treatment sludge went to a permitted landfill that was equipped with at least a single clay liner. As discussed in the proposed rule, the generators may obtain information on the landfill units in question from the state permitting authorities (or the receiving landfill, if the facility has adequate documents, such as a permit to operate). It is the responsibility of the generator to document the adequacy of the receiving landfill's design and to keep records that demonstrate that the landfill condition for disposal was met.

B. The Need for Storage Requirements

In the proposed rule, the Agency requested comment on the option of adding storage conditions to the exemption. The Agency also sought further information on the sludge management practices of the motor vehicle manufacturers generating F019 waste. The proposal presented some possible regulatory language that would require proper storage of sludges before disposal. Most commenters stated that storage conditions were unnecessary for the exempt sludge prior to shipment off site for disposal. Commenters stated that it was "standard industry-wide practice" for dewatering equipment and containers to be inside buildings, and for containers to be routinely covered when moved outside for shipment off site to prevent precipitation from entering the containers. These commenters also stated that requirements to constantly cover and uncover containers could cause, rather than prevent, spills. Two commenters, however, supported the concept of some storage conditions. One simply stated they concurred with the proposed regulatory language for storage. The other commenter suggested that the exempt waste should be regulated as hazardous until disposed in a landfill to ensure safe handling.

The Agency does not believe there is a need for detailed storage conditions or regulation of the waste as hazardous prior to disposal. The Agency has decided that detailed storage requirements or conditions are not necessary, given the known management practices for the waste. As noted in the proposed rule, during visits to vehicle manufacturing sites, the Agency found that dewatering equipment and containers were kept inside buildings, reducing any potential for releases. This is consistent with the comments provided by automobile manufacturers on the proposed rule. The Agency also expects, as commenters stated, that containers are kept covered when moved outside for transport off site to prevent the entrance of precipitation. The Agency has no information to suggest that such sludges have been stored improperly or that releases have occurred from on-site management of either F019 waste, or the formerly F019 wastes that were delisted. None of the 19 delistings that have been granted for this waste have imposed any special storage requirements for the delisted waste. Furthermore, as comments submitted by state authorities

[7] The modeling results for clay-lined units, while not specifically cited in the proposal, were included in the risk document for the Dyes and Pigments waste listing that was placed into the docket to support the conclusion that liners reduce risks for the exempt waste to below 10^{-5} for carcinogens or an HQ of less than or equal to 1 for non-carcinogens.

noted, the exempt waste remains subject to regulation as an industrial solid waste.

Based on the analysis described in section IV.A of this notice, the Agency believes that the waste in question carries risk below the 10^{-5} risk level or an HQ of 1 when properly disposed. The Agency evaluated potential releases of the sludge to air, surface water, and groundwater that may arise from the disposal of the waste in a landfill for 20 to 30 years, and found no significant risk, provided disposal occurs in units equipped with certain liner designs. This waste does not present any apparent acute risk (e.g., fire/explosion hazard, or highly toxic chemicals), and the relatively high water content of the sludge would also reduce the likelihood of any air dispersal of the sludge on site.

However, the Agency recognizes that commenters have some concerns over management practices for the waste prior to disposal. In lieu of detailed storage conditions, the Agency has decided to include regulatory language specifying that the waste must not be placed outside on the land prior to disposal. Given that the exemption is conditioned upon the ultimate disposal in an appropriate landfill, EPA believes that a requirement that the generator not place the waste on the land prior to disposal is implicit in that condition, and therefore the inclusion of this specific direction is reasonable. Such a prohibition addresses any potential risks from management of the waste on the land prior to shipment offsite. In the proposal, the storage conditions the Agency offered as an option included more specific requirements for how the waste must be stored prior to disposal. However, as noted above, generators appear to be managing the waste appropriately at this time, so a simpler direction prohibiting on land placement prior to disposal is sufficient.

The Agency believes that placement outside on the land in an uncontrolled manner creates a potential for release of toxic constituents from the waste. Also, the Agency's risk analysis indicated that the F019 waste at issue may present risks above the 10^{-5} risk level (or an HQ of one) if disposed in an unlined land-based unit. The prohibition on land placement prior to disposal ensures that the waste is properly handled to avoid placement in an uncontrolled land area (which is analogous to an unlined landfill). Therefore, the Agency is adding language to the conditions of the exemption in § 261.31(a) that specifies that the generator cannot place the waste outside on the land prior to shipment for disposal at a landfill. The Agency is also deleting the language in § 261.31(b)(ii) from the proposed regulation, because the language is not needed; the conditions for the exemption are fully specified in the listing description in § 261.31(a). EPA has made minor changes to the regulation to make the exemption language consistent with the removal of the proposed language in § 261.31(b)(ii) and the renumbering of the recordkeeping requirements, originally proposed as § 261.31(b)(iii), as § 261.31(b)(ii) in the final rule.

Generators that do not meet the conditions (i.e., no outside placement on the land and disposal of the waste in a landfill unit that meets certain liner design criteria) would be subject to enforcement action. In such cases, the wastewater treatment sludges may be considered to be F019 listed hazardous waste from the point of their generation, and EPA could choose to bring an enforcement action under RCRA section 3008(a) for violations of hazardous waste regulatory requirements occurring from the time the wastewater treatment sludges are generated. Furthermore, if any releases of the waste occurred that threaten human health or the environment, the releases could potentially be addressed through enforcement orders, such as orders under RCRA sections 3013 and 7003. States could choose to take an enforcement action for violations of state hazardous waste requirements under state authorities.

Based on the information available, the Agency believes that the condition of no land placement allows the motor vehicle manufacturers to dispose of this waste as nonhazardous, while continuing their current waste management practices. Storage in roll-off boxes and similar containers, as well as storage inside buildings, would clearly fulfill the condition of no outside land placement. Therefore, the Agency believes that the condition will not impose any additional burden on the generators.

C. Recordkeeping Requirements

As noted in the proposal, generators claiming the exemption must be able to demonstrate that the conditions of the exemption are being met and bear the burden of proof to demonstrate compliance (analogous to other exemptions, see 40 CFR 261.2(f)). Therefore, it is important that generators retain sufficient records to document the disposal site for the exempt waste. The proposed rule included regulatory text (§ 261.31(b)(4)(iii)) that specified the records necessary for a generator claiming the exemption. EPA requested comment on whether the proposed recordkeeping requirements should also be made conditions of the exemption, rather than established as a separate regulatory provision. If the recordkeeping provisions were made conditions of the exemption, then failure to comply may result in enforcement actions for violating RCRA standards for storing hazardous waste.

Most commenters stated that the recordkeeping requirement should be a separate regulatory requirement, and not a condition of the exemption itself. They noted that the full Subtitle C requirements should only apply when the waste is not sent to an appropriate landfill, and not when the generator may have failed to comply with ancillary recordkeeping requirements. One of these commenters assumed that, in addition to the need to document the waste volume generated and disposed off site, the information would also include the identity of the landfill where the sludge was disposed. Another commenter encouraged the Agency to make the recordkeeping requirements a condition of the exemption to reinforce the concept that the exemption is conditioned on proper management.

The Agency believes that a recordkeeping requirement, rather than a condition, will be sufficient motivation to ensure that the waste is properly disposed. The Agency believes that full Subtitle C requirements should not apply if the generator complied with the disposal conditions, i.e., the waste was sent to an appropriate landfill, but the generator simply lacked adequate records. This avoids cases where the lack of recordkeeping leads to the waste being hazardous, regardless of the actual disposal site. Failure to comply with recordkeeping requirements could result in enforcement action by EPA under section 3008 of RCRA (or by an authorized state under similar state authorities), which authorizes the imposition of substantial civil penalties. Also, as noted by one commenter, the generator should be able to demonstrate that their waste was properly disposed of just as they would for any other solid waste.

However, the Agency recognizes the need for adequate records for enforcement authorities to confirm that the exempt waste was properly disposed. The proposed recordkeeping requirements in § 261.31(b)(4)(iii) would require generators to maintain documentation sufficient to prove that the waste meets the disposal condition, including the volume of waste generated and disposed off site. The Agency agrees with the one commenter's assumption that this information would include the identity of the landfill(s) where the

sludge was disposed. The Agency has decided to more specifically describe the type of information needed in order to clarify the requirement. The recordkeeping requirement in the final rule will include: The volume of waste generated and disposed of off site; documentation showing when the waste volumes were generated and sent off site; the name and location of the receiving facility; and documentation confirming receipt of the waste by the receiving facility. The Agency believes that these requirements will ensure that there is sufficient information available to document the quantity of waste generated and identify the landfill that received the waste, without the need to establish the recordkeeping requirements as conditions to the exemption. The Agency expects that generators will typically retain records for shipments of solid waste to off-site landfills that will contain the information included in the recordkeeping requirement.

D. Scope and Applicability of the Exemption

The proposed rule exempts waste from one industrial sector (automobile manufacturers) that uses a specific aluminum conversion process (zinc phosphating). Several commenters urged EPA to expand the exemption to include other generators in other industries. Commenters argued that other sectors related to automobile manufacturing (categories under NAICS code 336 such as travel trailer manufacturers and parts manufacturers) and other industrial sectors (aerospace industry) use the same conversion coating processes. One commenter also suggested that the amendment to the listing be expanded to include auto manufacturing processes beyond the zinc phosphating process. This commenter suggested that the exemption be expanded to include processes "where neither hexavalent chromium nor cyanide is used in the chemical conversion coating process." The commenter believes that this language would better reflect EPA's intent in the original F019 listing.

The Agency is not expanding the scope of the exemption in the final rule to include other manufacturing categories. As described in the proposal, the Agency has a wealth of data from the automobile manufacturing/assembly facilities derived from the delisting petitions for 13 motor vehicle manufacturing facilities. These data include material safety data sheets and the analytical data compiled from the analyses of the F019 sludge samples from these facilities. The sludge samples were analyzed for approximately 240 chemicals, which yielded a large data base for the proposed rule (e.g., for a key constituent nickel, 106 samples were analyzed for nickel content and 193 were analyzed for leachable nickel). In comparison, the commenters did not provide any documentation to support their contention that the phosphating process used by the other generators cited is the same as that found at motor vehicle manufacturing facilities. Furthermore, commenters did not provide any analytical data to show that the associated wastestreams are the same or "virtually identical." Therefore, the Agency has no basis to consider expanding the exemption.

Finally, the Agency clearly noted in the preamble to the proposed rule that it was not reopening any other aspect of the F019 listing: "EPA is not reopening any aspect of the F019 listing other than those specifically identified in this proposal, and will not respond to any comments that address issues beyond the specific proposals outlined in this notice." See 72 FR 2223. Therefore, the Agency did not entertain any more general revisions to the F019 listing to exclude waste from processes where neither hexavalent chromium nor cyanide is used. In addition, the Agency has no data to indicate that hexavalent chromium and cyanide are the only constituents of concern in various conversion coating processes. In fact, although the F019 waste from the automotive manufacturers did not contain significant levels of hexavalent chromium or cyanide, the Agency found that the levels of nickel and arsenic are of some concern.

E. Applicability to Recycled Waste

In the proposed rule, the Agency stated that it was not aware of any recycling or reclamation of F019 sludges, and believed that current market conditions do not support such recycling for the purpose of recovering the metal content of the waste. The Agency requested comment on whether its understanding was accurate, and whether recycling of F019 waste is economically feasible. The comments the Agency received on this question confirmed that F019 wastes from automotive manufacturing are not currently recycled for metal recovery. However, commenters noted that, if the waste was not a listed hazardous waste, potential avenues of recycling, reclamation or other beneficial use of the sludge could develop in the marketplace, such as use as an admixture for concrete. Commenters urged the Agency to modify the exemption to include wastes that are recycled in some fashion.

The Agency has no documented information to indicate a market exists for recovering the metals in F019 waste from motor vehicle manufacturers. Some commenters appear to believe that the amended listing would allow beneficial uses of the sludge to develop. However, the Agency notes that the exemption requires the sludge to be disposed in a landfill that meets the specified liner conditions, and the requirement that the generator not place the waste on the land prior to disposal. Therefore, using the sludge as an admixture for concrete would not meet this condition, and the use of F019 sludge in this way may subject the materials to regulation as "use constituting disposal" (see 40 CFR 266.20).

The exemption being promulgated by the Agency in this final rule does not eliminate the possibility of legitimate reuse of the sludge, whether or not the sludge carries the F019 listing code. However, the Agency did not attempt to evaluate the legitimacy of potential recycling uses of the F019 sludge, and the final rule does not address such uses. The Agency is evaluating revisions to the definition of solid waste that may relate to the legitimate reclamation of various wastes. See the proposed rules published March 26, 2007 (72 FR 14172) and October 28, 2005 (68 FR 61588). However, these proposed actions are currently limited to reclamation activities and would not apply to recycling of materials that are used to produce products that are applied to or placed on the land.

F. Interrelationship Between the Exemption and Delistings

In the proposal, the Agency discussed the interrelationship between the proposed exemption and F019 listings (which is complicated by the overlay of state authorizations). The Agency indicated that if the revisions to the F019 listing are adopted by authorized state programs, then the existing delistings would not be needed to exclude the waste from the listing, provided the waste is not placed on the land prior to shipment to a landfill, and the landfill unit meets the specified liner requirements. That is, the subject sludge would never become an F019 waste if the exemption conditions are met, so a delisting is not needed. The Agency suggested that a facility with a delisting "may wish to seek to have its delisting withdrawn" to avoid confusion over implementation of the exemption. One commenter requested that the Agency confirm that facilities

with delistings are not required to withdraw them, and that these delistings would remain in effect until they are withdrawn under the applicable administrative procedures. The commenter was concerned that there may be circumstances under which facilities may wish to continue to manage their wastes pursuant to their delistings.

As the Agency stated in the proposal, a facility has the option of continuing to manage its waste as nonhazardous if it complies with the applicable delisting conditions, rather than the conditions set out in the exemption. The Agency agrees with the commenter that a facility with a delisting (which is codified in Appendix IX to part 261) is not required to withdraw it. This delisting would remain in effect unless it is withdrawn through the applicable administrative procedures (e.g., § 260.20 would apply for a Federal delisting). However, the generators in this situation are encouraged to explore the need for existing delistings with state authorities, given the broad coverage of the exemption, and the applicability of state regulations. See the discussion below in Section VI. State Authorization for additional information on the authorization process.

G. Waste Analysis

One commenter noted that EPA did not conduct leaching tests of the F019 wastes at multiple pH values, as suggested in the guidance manual for delisting petitions. The commenter stated that EPA did not explain why multiple pH testing was not conducted for the proposed F019 listing modification, when such multiple pH testing was required for the approval of delisting petitions for wastes that have been stabilized with chemical reagents. The commenter pointed out that the exempted F019 waste may be disposed of in a variety of different landfills with varying pH environments.

In response, the Agency notes that the exemption for these F019 wastes is not being promulgated as a delisting; rather it is an amendment to the listing, thus the delisting guidance is not directly germane. Furthermore, the document cited by the commenter is only guidance suggested for delisting petitions. In fact, testing at multiple pHs was not deemed necessary for the numerous delistings issued for specific F019 wastes generated by vehicle manufacturers. In any case, the amendment to the F019 listing is based on a wealth of data generated for 13 delistings (see the proposed rule at 72 FR 2226 for the 13 facilities). These data included extensive leaching data obtained using the Toxicity Characteristic Leaching Procedure (TCLP), which the Agency evaluated using the maximum detected levels in our risk analysis. For example, the data set included 163 TCLP results for nickel, from which the maximum value was used.

The Agency has used the Toxicity Characteristic Leaching Procedure (TCLP) extensively to evaluate the leaching mobility for waste constituents. The TCLP is the method specified for evaluating wastes for the hazardous waste Toxicity Characteristic (§ 261.24). In addition, the Agency has used the TCLP extensively in evaluating wastes for listing as a hazardous waste.[8] The TCLP test procedure is documented in EPA's compendium of analytical and sampling methods that have been evaluated and approved for use in complying with the RCRA regulations.[9] The Agency has used other extraction methods in some listing determinations. For example, the Agency has used another extraction method, the *Synthetic Precipitation Leaching Procedure* (SPLP, SW–846 method 1312) in cases where disposal in MSWLFs was unlikely and disposal in on-site industrial landfills was the most probable scenario (see the Inorganic Chemical Manufacturing listing, September 14, 2000; 65 FR 55684). However, in the case of the F019 amendment, there is no indication that the segment of the vehicle manufacturing industry at issue will dispose of the exempt waste in on-site landfills. To the contrary, industry commenters stated that it was extremely unlikely that they would construct landfills on site for disposal of this waste.[10] In addition, the SPLP is a relatively dilute acid solution and is generally considered less aggressive than the TCLP for metal extraction (e.g., see the data for lead debris, 63 FR 70189, December 18, 1998), although this depends on the form of the chemicals in the waste and the waste matrix.

Use of leaching tests other than the TCLP have been considered by the Agency for special wastes, such as stabilized waste that may have relatively high pH and wastes containing high levels of specific chemicals (e.g., mercuric sulfide, see the listing for Chlorinated Aliphatics Production wastes cited above). In the case of the F019 waste at issue, numerous samples of the waste were evaluated by testing their pH; the data show that the median pH of the samples tested was 7.78, or close to neutrality (see summary data in the docket). Due to the lack of any special characteristics of the F019 waste, the Agency does not believe the waste requires any special leaching testing. Therefore, while the TCLP test may be more representative of a MSWLF environment, EPA believes that the testing for the F019 exemption is sufficient, considering the nature of the waste (wastewater treatment sludge), the large number and variety of waste samples that were analyzed in support of the delisting petitions, and the plausible disposal in a MSWLF.

However, the Agency recognizes the possible limitations of the TCLP test data. Extending the exemption to industrial landfills (i.e., landfills that do not accept municipal waste) adds some additional uncertainty to the analysis, due to the potential for somewhat different leaching environments. Moreover, the regulatory programs in place for nonhazardous industrial waste vary from state to state.[11] Therefore, the authorized states that adopt this exemption have the option to consider the need for any further limitations on the specific landfill conditions they may deem appropriate, depending on their existing regulatory program for industrial solid waste.

H. Other Issues

One commenter suggested that the Agency revise the regulatory language to clarify that waste meeting the exemption conditions is still subject to regulation as a hazardous waste if the waste exhibits any of the hazardous waste characteristics specified in Subpart C of 40 CFR part 261 (§§ 261.20 through 261.24). Commenters also encouraged the Agency to clarify that the exempt waste is not subject to

[8] For example, see the determinations for Petroleum Refining wastes at 63 FR 42110, August 6, 1998, and Chlorinated Aliphatics Production wastes at 65 FR 67068, November 8, 2000.

[9] See EPA publication SW–846, entitled *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.*

[10] Disposal in an off-site industrial landfill, while possible, appears less likely than disposal in a municipal solid waste landfill if only because of the relatively low number of off-site industrial landfills compared to the large number of municipal landfills. As of 2005, EPA estimates that about 1,654 municipal landfills were operating (*http://www.epa.gov/epaoswer/non-hw/muncpl/facts.htm*) vs. perhaps 10 to 20 off-site commercial industrial landfills (*see Cost and Economic Impact Analysis of the CESQG Rulemaking, USEPA, June1996 available at http://www.epa.gov/epaoswer/hazwaste/sqg/cost/ria.pdf*). Furthermore, the Agency expects that off-site modern commercial industrial landfills are likely to have liner systems with composite liners in any case.

[11] See the report by Association of State and Territorial Solid Waste Management Officials (ASTSWMO), "Non-Municipal, Subtitle D Waste Survey," March 1996, and the EPA report, "State Requirements for Industrial Non-Hazardous Waste Management Facilities," October 1995.

regulation as a hazardous waste at the point of generation.

The Agency agrees with both of the commenters' suggestions and the Agency is modifying the listing description in the final rule to reflect these changes. The preamble to the proposed rule made it clear that the exempt waste would still be subject to the hazardous waste characteristics (see 72 FR 2229). In addition, the Agency's intent was to have the exemption apply from the point of generation, as evidenced by the preamble to the proposed rule that states: "Wastes that meet this condition would be exempted from the listing from their point of generation, and would not be subject to any RCRA Subtitle C management requirements for generation, storage, transport, treatment, or disposal (including the land disposal restrictions)" (see 72 FR 2221). Therefore, the final rule will specify that the wastes "will not be subject to this listing at the point of generation," if the wastes are managed according to the conditions of the exemption.

VI. State Authorization

Under section 3006 of RCRA, EPA may authorize a qualified state to administer and enforce a hazardous waste program within the state in lieu of the federal program, and to issue and enforce permits in the state. Following authorization, the state requirements authorized by EPA apply in lieu of equivalent Federal requirements and become Federally-enforceable as requirements of RCRA. EPA maintains independent authority to bring enforcement actions under RCRA sections 3007, 3008, 3013, and 7003. Authorized states also have independent authority to bring enforcement actions under state law.

A state may receive authorization by following the approval process described in 40 CFR part 271. Part 271 of 40 CFR also describes the overall standards and requirements for authorization. After a state receives initial authorization, new Federal regulatory requirements promulgated under the authority in the RCRA statute do not apply in that state until the state adopts and receives authorization for equivalent state requirements. The state must adopt such requirements to maintain authorization. In contrast, under RCRA section 3006(g), (42 U.S.C. 6926(g)), new Federal requirements and prohibitions imposed pursuant to the 1984 Hazardous and Solid Waste Amendments (HSWA) take effect in authorized states at the same time that they take effect in unauthorized states. Although authorized states still are required to update their hazardous waste programs to remain equivalent to the Federal program, EPA carries out HSWA requirements and prohibitions in authorized states, including the issuance of new permits implementing those requirements, until EPA authorizes the state to do so. Authorized states are required to modify their programs only when EPA promulgates Federal requirements that are more stringent or broader in scope than existing Federal requirements.

RCRA section 3009 allows the states to impose standards more stringent than those in the Federal program. See also 40 CFR 271.1(i). Therefore, authorized states are not required to adopt Federal regulations, either HSWA or non-HSWA, that are considered less stringent.

This rule is promulgated pursuant to non-HSWA authority. The changes in this rule are less stringent than the current Federal requirements. Therefore, states will not be required to adopt and seek authorization for these changes. EPA will implement the changes to the exemptions only in those states which are not authorized for the RCRA program. Nevertheless, EPA believes that this rule has considerable merit, and the Agency thus strongly encourages states to amend their programs and become Federally-authorized to implement these rules.

VII. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Designation and List of Hazardous Substances and Reportable Quantities

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) defines the term "hazardous substance" to include RCRA listed and characteristic hazardous wastes. When EPA adds a hazardous waste under RCRA, the Agency also will add the waste to its list of CERCLA hazardous substances. EPA also establishes a reportable quantity, or RQ, for each CERCLA hazardous substance. EPA provides a list of the CERCLA hazardous substances along with their RQs in Table 302.4 at 40 CFR 302.4. If a person in charge of a vessel or facility that releases a CERCLA hazardous substance in an amount that equals or exceeds its RQ, then that person must report that release to the National Response Center (NRC) pursuant to CERCLA section 103. That person also may have to notify state and local authorities.[12]

[12] See section 304(a) of the Emergency Planning and Community Right to Know Act (EPCRA) and 40 CFR 355.40.

Since this rule is amending the scope of the EPA Hazardous Waste No. F019 under 40 CFR 261.31 listing to exclude wastewater treatment sludges from zinc phosphating, when such phosphating is used in the motor vehicle manufacturing process, and if the wastes are disposed in a landfill meeting certain liner design criteria, the Table 302.4 at 40 CFR 302.4 is also amended to adopt the same definition and scope.

VIII. Relationship to Other Rules—Clean Water Act

This action's final regulatory changes will not: (1) Increase the amount of discharged wastewater pollutants at the industry or facility levels; or (2) interfere with the ability of industrial generators and recyclers of electroplating residuals to comply with the Clean Water Act requirements (e.g., Metal Finishing Effluent Guidelines, 40 CFR Part 433).

IX. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735), the Agency must determine whether this regulatory action is "significant" and therefore subject to formal review by the Office of Management and Budget (OMB) and to the requirements of the Executive Order, which include assessing the costs and benefits anticipated as a result of this regulatory action. 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, although the annual effect of this rule is expected to be less than $100 million, the Agency has determined that this rule is a significant regulatory action because this rule contains novel policy issues. As such, this action was submitted to OMB for

review. Changes made in response to OMB suggestions or recommendations are documented in the docket to this rule.

The following is a summary of EPA's "Regulatory Impact Analysis" (RIA), which is also available from the docket for this action. The scope of this F019 rule is limited to the (1) automobile manufacturing industry (NAICS 336111) and (2) the light truck/utility vehicle manufacturing industry (NAICS 336112). The Agency defined this scope in relation to 19 recent (since 1997) delisting final determinations for these two motor vehicle manufacturing industries in EPA Regions 4, 5, 6 and 7.[13] Under the current F019 listing description, motor vehicle manufacturers become F019 sludge generators if they use aluminum parts on vehicle bodies which undergo the chemical conversion (zinc phosphating) process. Motor vehicle manufacturers began in the early 1970's, to substitute lighter weight aluminum parts for heavier steel parts to achieve national vehicle fleet fuel efficiency and vehicle pollutant emission reduction objectives. As promulgated, the elimination of RCRA Subtitle C hazardous waste regulatory requirements for waste transport, waste treatment/disposal, and waste reporting/recordkeeping in this rule, is expected to provide $0.5 to $1.3 million per year in regulatory cost savings to 7 facilities in these two industries which generate about 2,500 tons per year of F019 sludge, but are not yet delisted. Although this final action considered alternative RCRA Subtitle D non-hazardous waste landfill liner specifications (i.e., liner design criteria) as possible conditions for exemption of F019 sludge from RCRA Subtitle C regulation, the RIA does not distinguish landfill liner types in this cost savings estimate. Secondary impacts of the proposed rule may also include potential future RCRA regulatory cost avoidance for up to 42 other facilities in these two industries that are not currently generating F019 sludge, but which may begin applying aluminum parts in vehicle assembly. Furthermore, by reducing regulatory costs, EPA anticipates that this rule may also induce other motor vehicle manufacturing facilities in the United States to begin using aluminum in manufacturing of vehicles sooner than they might otherwise do, thereby possibly accelerating future achievement of fuel efficiency objectives. The RIA presents a simplistic scenario of this possibility for the purposes of illustrating potential future vehicle fuel savings and the associated benefits.

[13] The **Federal Register** (FR) citations for the 19 F019 delisting determinations are: GM in Lake Orion, Michigan (62 FR 55344, October 24, 1997); GM in Lansing, Michigan (65 FR 31096, May 16, 2000); BMWMC in Greer, South Carolina (66 FR 21877, May 2, 2001); Nissan in Smyrna, Tennessee (67 FR 42187, June 21, 2002); GM in Pontiac, Michigan, GM in Hamtramck, Michigan, GM in Flint, Michigan, GM Grand River in Lansing, Michigan, Ford in Wixom, Michigan, Ford in Wayne, Michigan (68 FR 44652, July 30, 2003); DaimlerChrylser Jefferson North in Detroit, Michigan (69 FR 8828, February 26, 2004); GM in Lordstown, Ohio (69 FR 60557, October 12, 2004); Ford in Dearborn, Michigan (70 FR 21153, April 25, 2005); GM in Janesville, Wisconsin (70 FR 71002, November 25, 2005); and GM Saturn in Spring Hill, Tennessee (70 FR 76168, December 23, 2005); GM Ft. Wayne Assembly in Ft. Wayne, Indiana (29 Indiana Register 3350, July 1, 2006); GM Arlington Truck Assembly Plant in Arlington, Texas (72 FR 43, January 3, 2007); AutoAlliance International Inc (Ford/Mazda joint venture) in Flat Rock, Michigan (72 FR 17027, April 6, 2007); and Ford Motor Company Kansas City Assembly Plant in Claycomo, Missouri (72 FR 31185, June 6, 2007).

B. Paperwork Reduction Act

The information collection requirements in this rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The information collection requirements are not enforceable until OMB approves them. An Information Collection Request (ICR) document prepared by EPA has been assigned EPA ICR number 1189.21 and a copy may be obtained by going to *http://www.regulations.gov* and entering docket ID EPA–HQ–RCRA–2006–0984.

EPA under 40 CFR 261.31(b)(4)(iii), adds a recordkeeping requirement for generators. The rule will require generators wanting to demonstrate compliance with the provisions of this rule to maintain on site for a minimum of three years documentation demonstrating that each shipment of waste was received by a landfill unit that is subject to or meets the landfill design criteria set out in the listing description. An enforcement action by the Agency can extend the record retention period (§ 268.7(a)(8)) beyond the three years.

EPA estimates that the total annual respondent burden for the new paperwork requirements in the rule is approximately 35 hours per year and the annual respondent cost for the new paperwork requirements in the rule is approximately $2,600. However, in addition to the new paperwork requirements in the rule, the Agency also estimated the burden and cost that generators could expect as a result of complying with the existing RCRA hazardous waste information collection requirements for the exempted materials (e.g., preparation of hazardous waste manifests, biennial reporting). Taking both the new rule and existing RCRA requirements into account, EPA expects the rule will result in a net reduction in national annual paperwork burden to the 7 initially affected NAICS 336111 and 336112 facilities of approximately 440 hours and $32,400. As summarized in the Economics Background Document and in the prior sub-section of this notice, EPA expects this net cost savings to be further supplemented by annual cost savings to these same facilities from reduced waste management costs, by the expected shift of sludge management from RCRA Subtitle C hazardous waste management, to RCRA Subtitle D nonhazardous waste management. The net cost to EPA of administering the rule is expected to be negligible, since facilities are not required under this rule to submit any information to the Agency for review and approval. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust existing systems to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

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

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 *et seq.*, generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute, unless the agency certifies

that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of this rule on small entities potentially subject to this action, "small entity" is defined as: (1) The for-profit small business size standards set by the Small Business Administration (SBA), in reference to the two six-digit NAICS code industries affected by this action: (1) NAICS 336111 automobile manufacturing SBA standard of less than 1,000 employees, and (2) NAICS 336112 light truck and utility vehicle manufacturing SBA standard of less than 1,000 employees; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. In determining whether a rule has a significant economic impact on a substantial number of small entities, the impact of concern is any significant adverse economic impact on small entities, since the primary purpose of the regulatory flexibility analyses is to identify and address regulatory alternatives "which minimize any significant economic impact of the rule on small entities." 5 U.S.C. 603 and 604. Thus, an agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, or otherwise has a positive economic effect on small entities subject to the rule.

According to the most recent U.S. Census Bureau "Economics Census" data for these two NAICS codes—for data year 2002 published in December 2004 and May 2005, respectively—there were 176 NAICS 336111 establishments operated in 2002 by 161 companies, of which 154 establishments (88%) had less than 1,000 employees (*http://www.census.gov/prod/ec02/ec0231i336111t.pdf*), and there were 97 NAICS 336112 establishments operated in 2002 by 69 companies, of which 62 establishments (64%) had less than 1,000 employees (*http://www.census.gov/prod/ec02/ec0231i336112t.pdf*). These census statistics reveal that both industries consist of large fractions of small establishments according to the SBA definitions, but the census data do not reveal the fraction of companies which are small (which is the more relevant measure). However, it may be inferred that there are large fractions of small companies in both industries, because of the high degree of parity between establishment counts and companies counts of 0.96 for NAICS 336111 (i.e., 154:to:161), and of 0.71 for NAICS 336112 (i.e., 69:to:97). This action does not directly affect small governmental jurisdictions (i.e., a government of a city, county, town, school district or special district with a population of less than 50,000), or small organizations (i.e., any not-for-profit enterprise which is independently owned and operated and is not dominant in its field).

Because this action is designed to lower the cost of waste management for these industries, this rule will not result in an adverse economic impact effect on affected entities. For more information regarding the economic impact of this rule, please refer to the "Regulatory Impact Analysis" available from the EPA Docket. EPA therefore concludes that this rule will relieve regulatory burden for all size entities, including small entities.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal Agencies to assess the effects of their regulatory actions on state, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA must prepare a written analysis, 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 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 to have meaningful and timely input in the development of regulatory rules, and informing, educating, and advising small governments on compliance with the regulatory requirements.

EPA has determined that this rule does not include a Federal mandate that may result in expenditures of $100 million or more for state, local, or tribal governments, in the aggregate, or the private sector in any one year. This is because this rule imposes no enforceable duty on any state, local, or tribal governments. EPA also has determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments. In addition, as discussed above, the private sector is not expected to incur costs exceeding $100 million. Therefore, this rule is not subject to the requirements of sections 202 and 205 of UMRA.

E. Executive Order 13132: Federalism

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

This final rule does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. This rule directly affects primarily generators of hazardous waste sludges in the NAICS 3361 motor vehicle manufacturing industry group. There are no state and local government bodies that incur direct compliance costs by this rulemaking. State and local government implementation expenditures are expected to be less than $500,000 in any one year. Thus, the requirements of Section 6 of the Executive Order do not apply to this final rule.

In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and state and local governments, EPA specifically solicited comment on the proposed rule from state and local officials.

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

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." This final rule does not have tribal implications, as specified in Executive Order 13175. This rule does not significantly or uniquely affect the communities of Indian tribal governments, nor does it impose substantial direct compliance costs on them. Thus, Executive Order 13175 does not apply to this rule.

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

The Executive Order 13045, entitled "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997) applies to any rule that EPA determines (1) Is "economically significant" as defined under Executive Order 12866, and (2) the environmental health or safety risk addressed by the rule has a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children; and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

This final rule is not subject to the Executive Order because it is not economically significant as defined in E.O. 12866, and because the Agency does not have reason to believe the environmental health or safety risks addressed by this action present a disproportionate risk to children.

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

This rule is not a "significant energy action" as defined in Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355 (May 22, 2001)) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. This final rule reduces regulatory burden as explained in our "Economics Background Document," and may possibly induce fuel efficiency and energy savings in the national motor vehicle fleet. It thus should not adversely affect energy supply, distribution or use.

I. National Technology Transfer and Advancement Act

As noted in the proposed rule, Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law 104–113, section 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities, unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards. This rulemaking does not involve technical standards. Therefore, EPA is not considering the use of any voluntary consensus standards.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898, "Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Population" (February 11, 1994), is designed to address the environmental and human health conditions of minority and low-income populations. EPA is committed to addressing environmental justice concerns and has assumed a leadership role in environmental justice initiatives to enhance environmental quality for all citizens of the United States. The Agency's goals are to ensure that no segment of the population, regardless of race, color, national origin, income, or net worth bears disproportionately high and adverse human health and environmental impacts as a result of EPA's policies, programs, and activities. Our goal is to ensure that all citizens live in clean and sustainable communities. In response to Executive Order 12898, and to concerns voiced by many groups outside the Agency, EPA's Office of Solid Waste and Emergency Response (OSWER) formed an Environmental Justice Task Force to analyze the array of environmental justice issues specific to waste programs and to develop an overall strategy to identify and address these issues (OSWER Directive No. 9200.3–17).

The Agency's risk assessment did not identify risks from the management of the zinc phosphating sludge generated by the motor vehicle manufacturing industry, provided that the waste is disposed in a landfill that is subject to or meets the landfill design criteria set out in this rule. Therefore, EPA believes that any populations in proximity to the landfills used by these facilities should not be adversely affected by common waste management practices for the wastewater treatment sludge.

K. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A "major rule" cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2). This rule will be effective July 7, 2008.

List of Subjects

40 CFR Part 261

Environmental protection, Hazardous materials, Recycling, Waste treatment and disposal.

40 CFR Part 302

Environmental protection, Air pollution control, Chemicals, Emergency Planning and Community Right-to-Know Act, Extremely hazardous substances, Hazardous chemicals, Hazardous materials, Hazardous materials transportation, Hazardous substances, Hazardous wastes, Intergovernmental relations, Natural resources, Reporting and recordkeeping requirements, Superfund, Waste treatment and disposal, Water pollution control, Water supply.

Dated: May 29, 2008.

Stephen L. Johnson,

Administrator.

■ For the reasons set out in the preamble, title 40, chapter I of the Code

of Federal Regulations is amended as follows:

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

■ 1. The authority citation for part 261 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921, 6922, 6924(y), and 6938.

■ 2. Section 261.31 is amended as follows:

■ a. In the table in paragraph (a) by revising the entry for F019.

■ b. By adding paragraph (b)(4).

§ 261.31 Hazardous wastes from non-specific sources.

(a) * * *

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
*	*	*
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process. Wastewater treatment sludges from the manufacturing of motor vehicles using a zinc phosphating process will not be subject to this listing at the point of generation if the wastes are not placed outside on the land prior to shipment to a landfill for disposal and are either: disposed in a Subtitle D municipal or industrial landfill unit that is equipped with a single clay liner and is permitted, licensed or otherwise authorized by the state; or disposed in a landfill unit subject to, or otherwise meeting, the landfill requirements in § 258.40, § 264.301 or § 265.301. For the purposes of this listing, motor vehicle manufacturing is defined in paragraph (b)(4)(i) of this section and (b)(4)(ii) of this section describes the recordkeeping requirements for motor vehicle manufacturing facilities.	(T)

* * * * *

(b) * * *

(4) For the purposes of the F019 listing, the following apply to wastewater treatment sludges from the manufacturing of motor vehicles using a zinc phosphating process.

(i) Motor vehicle manufacturing is defined to include the manufacture of automobiles and light trucks/utility vehicles (including light duty vans, pick-up trucks, minivans, and sport utility vehicles). Facilities must be engaged in manufacturing complete vehicles (body and chassis or unibody) or chassis only.

(ii) Generators must maintain in their on-site records documentation and information sufficient to prove that the wastewater treatment sludges to be exempted from the F019 listing meet the conditions of the listing. These records must include: the volume of waste generated and disposed of off site; documentation showing when the waste volumes were generated and sent off site; the name and address of the receiving facility; and documentation confirming receipt of the waste by the receiving facility. Generators must maintain these documents on site for no less than three years. The retention period for the documentation is automatically extended during the course of any enforcement action or as requested by the Regional Administrator or the state regulatory authority.

PART 302—DESIGNATION, REPORTABLE QUANTITIES, AND NOTIFICATION

■ 3. The authority citation for part 302 continues to read as follows:

Authority: 42 U.S.C. 9602, 9603, and 9604; 33 U.S.C. 1321 and 1361.

■ 4. In § 302.4, Table 302.4 is amended by revising the entry for F019 in the table to read as follows:

§ 302.4 Designation of hazardous substances.

TABLE 302.4.—LIST OF HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES

[Note: All comments/notes are located at the end of this table]

Hazardous substance	CASRN	Statutory code†	RCRA waste No.	Final RQ pounds (Kg)
*	*	*	*	*
F019 ..... Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process. Wastewater treatment sludges from the manufacturing of motor vehicles using a zinc phosphating process will not be subject to this listing at the point of generation if the wastes are not placed outside on the land prior to shipment to a landfill for disposal and are either: disposed in a Subtitle D municipal or industrial landfill unit that is equipped with a single clay liner and is permitted, licensed or otherwise authorized by the state; or disposed in a landfill unit subject to, or otherwise meeting, the landfill requirements in § 258.40, § 264.301 or § 265.301. For the purposes of this listing, motor vehicle manufacturing is defined in § 261.31(b)(4)(i) and § 261.31(b)(4)(ii) describes the recordkeeping requirements for motor vehicle manufacturing facilities.	.....	4	F019	10 (4.54)
*	*	*	*	*

† Indicates the statutory source defined by 1, 2, 3, and 4, as described in the note preceding Table 302.4.

* * * * *

[FR Doc. E8–12483 Filed 6–3–08; 8:45 am]
BILLING CODE 6560–50–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 648

[Docket No. 070717341–8549–02]

RIN 0648–AV41

Fisheries of the Northeastern United States; Recreational Management Measures for the Summer Flounder, Scup, and Black Sea bass Fisheries; Fishing Year 2008

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Final rule; correction.

SUMMARY: On May 23, 2008, NMFS published a final rule implementing the recreational management measures for the 2008 summer flounder, scup, and black sea bass fisheries. The final rule contains several errors throughout the preamble. This document corrects those errors.

DATES: Effective June 23, 2008.

FOR FURTHER INFORMATION CONTACT: Michael Ruccio, Fishery Policy Analyst, (978) 281–9104.

SUPPLEMENTARY INFORMATION: The final rule for the 2008 recreational management measures for summer flounder, scup, and black sea bass was published in the **Federal Register** on May 23, 2008 (73 FR 29990). There were several errors throughout the preamble text.

Corrections

In final rule FR Doc. E8–11601, on page 29991 of the May 23, 2008, issue of the **Federal Register**, make the following corrections:

1. On page 29991, in column 3, under the Black Sea Bass Management Measures caption, the first sentence is corrected to read as follows:

"Table 3 contains the coastwide Federal measures for black sea bass in effect for 2007 and codified."

2. On page 29992, in column 1, under the Comments and Responses caption, the second sentence is corrected to read as follows:

"One individual submitted comments regarding several species such as mackerel, red hake, and marlin which are outside the scope of this rulemaking."

3. On page 29992, in column 1, under the Comment 1 caption, the first sentence is corrected to read as follows:

"Some of the comments received allege that state-by-state conservation equivalency violates National Standard 2 of the Magnuson-Stevens Act, which requires conservation and management actions to be based upon the best available scientific information."

4. On page 29992, in column 2, in the 27th line, the sentence is corrected to read as follows:

"In addition, NMFS encouraged states to take a more conservative approach to both improve conservation equivalency's performance and to offset uncertainty in the assessment of potential measures effectiveness."

5. On page 29992, in column 3, the first full paragraph should read:

"The use of MRFSS data was challenged, along with other aspects of the agency's actions, in 2006 in the case *United Boatmen, et al.*, v. *Gutierrez*[3], the Secretary of Commerce (Secretary). The plaintiffs alleged that MRFSS was a gravely flawed tool and unsuitable for use in setting the summer flounder TAL. NMFS responded that MRFSS, while admittedly having limitations, has been upheld under National Standard 2 as the best available scientific information. The defendants' brief cited three separate cases wherein MRFSS had been upheld as the best available scientific information relative to National Standard 2. In this case, the judge found in favor of the Secretary on all points, adding further support to the adequacy of MRFSS data for use in fisheries management as the best available science."

6. On page 29993, in column 3, the last full paragraph is corrected to read as follows:

"For these reasons, NMFS believes that implementing conservation equivalency, as recommended by the Council and Commission for 2008, does not violate National Standard 4 or National Standard 2 of the Magnuson-Stevens Act."

7. On page 29994, in column 1, in the first full paragraph, the forth sentence is corrected to read as follows:

"National Standard 6 directs FMPs to have a suitable buffer, in favor of conservation, to deal with uncertainty, which may also be stated as a conservative approach."

8. On page 29995, in column 2, in the 13th line the sentence is corrected to read as follows:

"As such, it is a more conservative approach than applied in previous years, and presents a higher likelihood that the 2008 recreational harvest limit will not be exceeded on either a state-by-state basis or coastwide, and that the subsequent mortality objectives will be met for the 2008 fishing year."

9. On page 29996, in column 1, in the first full paragraph, the first sentence is corrected to read as follows:

"NMFS acknowledges that state-by-state conservation equivalency has not performed ideally, since the summer flounder recreational harvest limit has been exceeded in 5 of the 7 years where it has been utilized."

10. On page 29997, in column 1, the first full paragraph is corrected to read as follows:

"A summary of the comments received and NMFS' responses thereto is contained in the preamble of this rule. None of those comments addressed specific information contained in the IRFA economic analysis. One comment received stated that NMFS had not conducted an economic analysis for the 2008 recreational management measures and some commenters generally indicated that the management measures implemented by this rule may have an economic impact. See response to Comment 7 in the Comment and Responses section for more information. No changes have been made from the proposed rule as a result of the comments received by NMFS."

11. On page 29998, in column 2,in the 13th line from the bottom, the sentence is corrected to read as follows:

"Conservation equivalency is generally expected to mitigate the economic impact in states with lower required percent reductions for 2008 compared to the coastwide reduction of 33.2 percent."

Authority: 16 U.S.C. 1801 *et seq.*

Dated: May 29, 2008.

Samuel D. Rauch III,

Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

[FR Doc. 08–1317 Filed 5–30–08; 2:51 pm]
BILLING CODE 3510–22–S

Federal Register

Thursday,
October 30, 2008

Part II

Environmental Protection Agency

40 CFR Parts 260, 261, and 270
Revisions to the Definition of Solid Waste; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 260, 261, and 270

[EPA–HQ–RCRA–2002–0031; FRL–8728–9]

RIN 2050–AG31

Revisions to the Definition of Solid Waste

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is publishing a final rule that revises the definition of solid waste to exclude certain hazardous secondary materials from regulation under Subtitle C of the Resource Conservation and Recovery Act (RCRA). The purpose of this final rule is to encourage safe, environmentally sound recycling and resource conservation and to respond to several court decisions concerning the definition of solid waste.

DATES: This final rule is effective on December 29, 2008.

ADDRESSES: EPA has established a docket for this action under Docket ID No. EPA–HQ–RCRA–2002–0031. All documents in the docket are listed on the *http://www.regulations.gov* Web site. Although listed in the index, some information is not publicly available, e.g., Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in *http://www.regulations.gov* or in hard copy at the OSWER Docket, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the OSWER Docket is 202–566–0270.

FOR FURTHER INFORMATION CONTACT: For more detailed information on specific aspects of this rulemaking, contact Marilyn Goode, Office of Solid Waste, Hazardous Waste Identification Division, MC 5304P, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460, (703) 308–8800 (*goode.marilyn@epa.gov*) or Tracy Atagi, Office of Solid Waste, Hazardous Waste Identification Division, MC 5304P, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460, at (703) 308–8672 (*atagi.tracy@epa.gov*).

SUPPLEMENTARY INFORMATION:

A. Does This Action Apply to Me?

Entities potentially affected by today's action include approximately 5,600 facilities in 280 industries in 21 economic sectors that generate or recycle hazardous secondary materials that are currently regulated as RCRA Subtitle C hazardous wastes (e.g., secondary materials, such as industrial co-products, by-products, residues, and unreacted feedstocks). Approximately 60% of these affected facilities are classified in NAICS code economic sectors 31, 32, and 33 (manufacturing). The remaining economic sectors, which have more than ten affected industries each, are in NAICS codes 48 (transportation), 42 (wholesale trade), and 56 (administrative support, waste management and remediation). About 1.5 million tons per year of hazardous secondary materials generated and handled by these entities may be affected, of which the most common types are metal-bearing hazardous secondary materials (e.g., sludges and spent catalysts) for commodity metals recovery and organic chemical liquid hazardous secondary materials for recovery as solvents. Today's action is expected to result in regulatory and materials recovery cost savings to these industries of approximately $95 million per year. Taking into account impact estimation uncertainty factors, today's action could result in cost savings ranging from $19 million to $333 million per year to these industries in any future year. More detailed information on the potentially affected entities, industries, and industrial materials, as well as the economic impacts of this rule (with impact uncertainty factors), is presented in section XXI.A of this preamble and in the "Regulatory Impact Analysis" available in the docket for this final rule.

B. Why Is EPA Taking This Action?

There are two primary purposes of this action. One purpose is to respond to a series of seven decisions by the U.S. Court of Appeals for the DC Circuit (1987 to 2000), which, taken together, have provided EPA with additional direction regarding the proper formulation of the RCRA regulatory definition of solid wastes for purposes of Subtitle C. A second purpose is to clarify the RCRA concept of "legitimate recycling," which is a key component of EPA's approach to recycling hazardous secondary materials.

This action is not intended to bring new wastes into the RCRA hazardous waste regulatory system and it does not do so. By removing unnecessary controls over certain hazardous secondary materials, and by providing more explicit and consistent factors for determining the legitimacy of recycling practices, EPA expects that today's action will encourage and expand the safe, beneficial recycling of additional hazardous secondary materials. Today's action is consistent with EPA's longstanding policy of encouraging the recovery, recycling, and reuse of valuable resources as an alternative to disposal (i.e., landfilling and incineration), while at the same time maintaining protection of human health and the environment. It also is consistent with the resource conservation goal of the Congress in enacting the RCRA statute (as evidenced by the statute's name), and with EPA's vision of how the RCRA program could evolve over the long term to promote economic sustainability and more efficient use of resources. EPA's long-term vision of the future of the RCRA waste management program is discussed in the document "Beyond RCRA: Prospects for Waste and Materials Management in the Year 2020," which is available on EPA's Web site at: *http://www.epa.gov/epaoswer/osw/vision.htm.*

Preamble Outline

I. Statutory Authority
II. Which Revisions to the Regulations Is EPA Finalizing?
III. What Is the History of These Rules?
IV. How Do the Provisions in the Final Rule Compare to Those Proposed on March 26, 2007?
V. How Does the Concept of Discard Relate to the Final Rule?
VI. When Will the Final Rule Become Effective?
VII. Exclusion for Hazardous Secondary Materials That are Legitimately Reclaimed Under the Control of the Generator
VIII. Exclusion for Hazardous Secondary Materials That are Transferred for the Purpose of Legitimate Reclamation
IX. Legitimacy
X. Non-Waste Determination Process
XI. Effect on Other Exclusions
XII. Effect on Permitted and Interim Status Facilities
XIII. Effect on CERCLA
XIV. Effect on Imports and Exports
XV. General Comments on the Proposed Revisions to the Definition of Solid Waste
XVI. Major Comments on the Exclusion for Hazardous Secondary Materials Legitimately Reclaimed Under the Control of the Generator
XVII. Major Comments on the Exclusion for Hazardous Secondary Materials Transferred for the Purpose of Legitimate Reclamation

XVIII. Major Comments on Legitimacy
XIX. Major Comments on the Non-Waste Determination Process
XX. How Will These Regulatory Changes Be Administered and Enforced in the States?
XXI. Administrative Requirements for This Rulemaking

I. Statutory Authority

These regulations are promulgated under the authority of sections 2002, 3001, 3002, 3003, 3004, 3007, 3010, and 3017 of the Solid Waste Disposal Act of 1970, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), 42 U.S.C. 6912, 6921, 6922, 6923, 6924, 6927, 6930, and 6938. These statutes, combined, are commonly referred to as "RCRA."

II. Which Revisions to the Regulations Is EPA Finalizing?

In today's rule, EPA is revising the definition of solid waste to exclude from regulation under Subtitle C of RCRA (42 U.S.C. 6921 through 6939(e)) certain hazardous secondary materials which are being reclaimed. We have defined hazardous secondary materials as those which would be classified as hazardous wastes if discarded. We are also promulgating regulatory factors for determining when recycling is legitimate. The Agency first proposed changes reflecting the court decisions on the definition of solid waste rules on October 28, 2003 (68 FR 61558). We then published a supplemental proposal on March 26, 2007 (72 FR 14172).

Today's preamble is organized as follows: This section of the preamble (Section II) describes the three principal regulatory revisions that are finalized in this rule: (1) An exclusion for certain hazardous secondary materials legitimately reclaimed under the control of the generator within the United States or its territories; (2) a conditional exclusion for hazardous secondary materials that are transferred for the purpose of legitimate reclamation; and (3) a case-by-case non-waste determination procedure. Section II also discusses EPA's treatment of legitimacy in the final rule. Section III describes the history of these revisions, including relevant court cases and the original proposal (October 28, 2003, 68 FR 61558). Section III also describes the Agency's independent analyses of successful recycling practices, environmental problems associated with recycling of hazardous secondary materials, and potential effects of market forces on the management of such materials, and provides an overview of the March 26, 2007, supplemental proposal (72 FR 14172). Section IV explains the ways in which the March 2007 supplemental proposal differs from today's rule. Section V discusses how this rule is related to the concept of "discard," and section VI indicates the effective date of the rule. Sections VII–X contain detailed descriptions of all regulatory provisions promulgated today. Sections XI–XIV describe the effect of this rule on other exclusions, permitted and interim status facilities, Superfund, and imports/exports. Sections XV–XIX contain a discussion of all major public comments received on the March 26, 2007, supplemental proposal, along with the Agency's responses to these comments. Section XX describes how this rule will be administered and enforced in the states, and section XXI describes the administrative requirements for this rulemaking.

Below is a summary of the principal regulatory revisions promulgated today.

A. Exclusion for Hazardous Secondary Materials That Are Legitimately Reclaimed Under the Control of the Generator in Non-Land-Based Units

This provision—40 CFR 261.2(a)(2)(ii)—would exclude certain hazardous secondary materials (i.e., listed sludges, listed by-products, and spent materials) that are generated and legitimately reclaimed within the United States or its territories under the control of the generator, when such materials are handled only in non-land-based units (e.g., tanks, containers, or containment buildings). This provision applies to hazardous secondary materials that are not spent lead-acid batteries or listed wastes K171 or K172, or otherwise subject to the specific management conditions under 40 CFR 261.4(a). Under this provision, the hazardous secondary materials must be contained in such units and are subject to the speculative accumulation requirements of 40 CFR 261.1(c)(8), as well as the provisions for legitimate recycling at 40 CFR 260.43. In addition, under 40 CFR 260.42, the generator (and the reclaimer, if the generator and reclaimer are located at different facilities) must send a notification prior to operating under the exclusion and by March 1 of each even numbered year thereafter to the EPA Regional Administrator or, in an authorized state, to the state director.

Hazardous secondary materials would be considered "under the control of the generator" under the following circumstances:

(1) They are generated and then reclaimed at the generating facility; or

(2) They are generated and reclaimed at different facilities, if the generator certifies that the hazardous secondary materials are sent either to a facility controlled by the generator or to a facility under common control with the generator, and that either the generator or the reclaimer has acknowledged responsibility for the safe management of the hazardous secondary materials; or

(3) They are generated and reclaimed pursuant to a written agreement between a tolling contractor and toll manufacturer, if the tolling contractor certifies that it has entered into a tolling contract with a toll manufacturer and that the tolling contractor retains ownership of, and responsibility for, the hazardous secondary materials generated during the course of the manufacture, including any releases of hazardous secondary materials that occur during the manufacturing process.

This exclusion does not include the recycling of hazardous secondary materials that are inherently waste-like under 40 CFR 261.2(d), hazardous secondary materials that are used in a manner constituting disposal or used to produce products that are applied to or placed on the land (40 CFR 261.2(c)(1)), or hazardous secondary materials burned to recover energy or used to produce a fuel or otherwise contained in fuels (40 CFR 261.2(c)(2)).

B. Exclusion for Hazardous Secondary Materials That Are Legitimately Reclaimed Under the Control of the Generator in Land-Based Units

This provision—40 CFR 261.4(a)(23)—contains requirements that are identical to those that apply to hazardous secondary materials generated and legitimately reclaimed under the control of the generator within the United States or its territories and are handled in non-land-based units in 40 CFR 261.2(a)(2)(ii), described above. Land-based units are defined in 40 CFR 260.10 as an area where hazardous secondary materials are placed in or on the land before recycling, but this definition does not include land-based production units. Examples of land-based units are surface impoundments and piles. This provision applies to hazardous secondary materials that are not spent lead-acid batteries or listed wastes K171 or K172, or otherwise subject to the specific management conditions under 40 CFR 261.4(a).

C. Exclusion for Hazardous Secondary Materials That Are Transferred for the Purpose of Legitimate Reclamation

This conditional exclusion—40 CFR 261.4(a)(24), hereinafter referred to as

the "transfer-based exclusion"—applies to hazardous secondary materials (i.e., spent materials, listed sludges, and listed by-products) that are generated and subsequently transferred to a different person or company for the purpose of reclamation. As long as the conditions and restrictions to the exclusion are satisfied, the hazardous secondary materials would not be subject to Subtitle C regulation.

Hazardous secondary material generators, reclaimers, and intermediate facilities (i.e., other facilities storing hazardous secondary materials for more than 10 days) must all submit a notification prior to operating under the exclusion and by March 1 of each even numbered year thereafter to the EPA Regional Administrator or, in an authorized state, to the state director (see 40 CFR 260.42). In addition, hazardous secondary materials managed at such facilities may not be speculatively accumulated as defined in § 262.1(c)(8) (*see* 40 CFR 261.4(a)(24)(i)) and must be legitimately recycled as specified in § 260.43 (*see* 40 CFR 261.4(a)(24)(iv)).

Conditions applicable to generators of hazardous secondary materials are found at 40 CFR 261.4(a)(24)(v) and include containment of such materials, reasonable efforts to ensure that the intermediate facility or reclaimer intends to manage or recycle the hazardous secondary material properly and legitimately, and retention of records of off-site shipments for three years. Conditions applicable to intermediate facilities and reclaimers of hazardous secondary materials are found at 40 CFR 261.4(a)(24)(vi) and include containment of such materials, transmittal of confirmations of receipt to generators, maintenance of records for hazardous secondary materials received and sent off-site, financial assurance, and (for reclaimers) proper management of residuals. In addition, if any of the hazardous secondary materials excluded under 40 CFR 261.4(a)(24) are generated and then exported to another country for reclamation, the exporter must notify and obtain consent from the receiving country, and file an annual report. This requirement is codified in 40 CFR 261.4(a)(25).

Like the previously discussed exclusion for hazardous secondary materials reclaimed under the control of the generator, this exclusion would not apply to hazardous secondary materials that are inherently waste-like under 40 CFR 261.2(d), hazardous secondary materials that are used in a manner constituting disposal or used to produce products that are applied to or placed on the land (40 CFR 261.2(c)(1)), or hazardous secondary materials burned to recover energy or used to produce a fuel or are otherwise contained in fuels (40 CFR 261.2(c)(2)).

D. Codification of Legitimacy

Under the RCRA Subtitle C definition of solid waste, certain hazardous secondary materials, if recycled, are not solid wastes and, therefore, are not subject to RCRA's "cradle to grave" management system. The basic idea behind this principle is that recycling of these materials often closely resembles industrial manufacturing rather than waste management. However, due to economic incentives for managing hazardous secondary materials outside the RCRA regulatory system, there is a potential for some handlers to claim that they are recycling the hazardous secondary materials when, in fact, they are conducting waste treatment and/or disposal. To guard against this, EPA has long articulated the need to distinguish between "legitimate" (i.e., true) recycling and "sham" recycling, beginning with the preamble to the 1985 regulations that discussed the definition of solid waste (50 FR 638, January 4, 1985) and continuing through today's final rule.

In the October 28, 2003, proposed rule (68 FR 61581–61588) on the definition of solid waste, we proposed codifying four criteria (called "factors" in today's rule) to determine when recycling of hazardous secondary materials is legitimate. In the March 26, 2007, supplemental proposal in section XI of the preamble (72 FR 14197), we refined our original proposal in response to public comments. In today's final rule, we are codifying the factors to be used in determining whether recycling under the provisions finalized in this rule is legitimate, applying the structure basically as proposed in March 2007 (proposed at 40 CFR 261.2(g)). The legitimacy provision is finalized in 40 CFR 260.43.

E. Non-Waste Determinations

Today's rule establishes a non-waste determination process that provides persons with an administrative process for receiving a formal determination that their hazardous secondary materials are not discarded and, therefore, not solid wastes when legitimately reclaimed. This process is voluntary and is available in addition to the two self-implementing exclusions included in today's rule. There are two types of non-waste determinations: (1) A determination for hazardous secondary materials reclaimed in a continuous industrial process; and (2) a determination for hazardous secondary materials indistinguishable in all relevant aspects from a product or intermediate.

For hazardous secondary materials reclaimed in a continuous industrial process, the non-waste determination will be based on the following four criteria: (1) The extent that the management of the hazardous secondary material is part of the continuous primary production process; (2) whether the capacity of the production process would use the hazardous secondary material in a reasonable time frame; (3) whether the hazardous constituents in the hazardous secondary material are reclaimed rather than discarded to the air, water, or land at significantly higher levels from either a statistical or from a health and environmental risk perspective than would otherwise be released by the production process; and (4) other relevant factors that demonstrate the hazardous secondary material is not discarded.

For hazardous secondary materials which are indistinguishable in all relevant aspects from a product or intermediate, the non-waste determination will be based on the following five criteria: (1) Whether market participants treat the hazardous secondary material as a product or intermediate rather than a waste; (2) whether the chemical and physical identity of the hazardous secondary material is comparable to commercial products or intermediates; (3) whether the capacity of the market would use the hazardous secondary material in a reasonable time frame; (4) whether the hazardous constituents in the hazardous secondary material are reclaimed rather than discarded to the air, water, or land at significantly higher levels from either a statistical or from a health and environmental risk perspective than would otherwise be released by the production process; and (5) other relevant factors that demonstrate the hazardous secondary material is not discarded.

The process for the non-waste determination is the same as that for the solid waste variances found in 40 CFR 260.30.

III. What Is the History of These Rules?

A. Background

RCRA gives EPA the authority to regulate hazardous wastes (*see, e.g.*, RCRA sections 3001–3004). The original statutory designation of the subtitle for the hazardous waste program was Subtitle C and the national hazardous waste program is referred to as the RCRA Subtitle C program. Subtitle C is codified at 42 U.S.C. 6921 through

6939e. "Subtitle C" regulations are found at 40 CFR Parts 260 through 279. "Hazardous wastes" are the subset of solid wastes that present threats to human health and the environment (*see* RCRA section 1004(5)). EPA also may address solid and hazardous wastes under its endangerment authorities in section 7003. (Similar authorities are available for citizen suits under section 7002.)

Materials that are not solid wastes are not subject to regulation as hazardous wastes under RCRA Subtitle C. Thus, the definition of "solid waste" plays a key role in defining the scope of EPA's authorities under Subtitle C of RCRA. The statute defines "solid waste" as "* * * any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and *other discarded material* * * * resulting from industrial, commercial, mining, and agricultural operations, and from community activities * * *" (RCRA Section 1004 (27) (emphasis added)).

Since 1980, EPA has interpreted "solid waste" under its Subtitle C regulations to encompass both materials that are destined for final, permanent treatment and placement in disposal units, as well as certain materials that are destined for recycling (45 FR 33090–95, May 19, 1980; 50 FR 604–656, Jan. 4, 1985 (*see* in particular pages 616–618)). EPA has offered three arguments in support of this approach:

- The statute and the legislative history suggest that Congress expected EPA to regulate as solid and hazardous wastes certain materials that are destined for recycling (*see* 45 FR 33091, citing numerous sections of the statute and *U.S. Brewers' Association* v. *EPA*, 600 F. 2d 974 (DC Cir. 1979); 48 FR 14502–04, April 3, 1983; and 50 FR 616–618).
- Hazardous secondary materials stored or transported prior to recycling have the potential to present the same types of threats to human health and the environment as hazardous wastes stored or transported prior to disposal. In fact, EPA found that recycling operations have accounted for a number of significant damage incidents. For example, hazardous secondary materials destined for recycling were involved in one-third of the first 60 filings under RCRA's imminent and substantial endangerment authority, and in 20 of the initial sites listed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (48 FR 14474, April 4, 1983). Congress also cited some damage cases which involve recycling (H.R. Rep. 94–1491, 94th Cong., 2d Sess., at 17, 18, 22). More recent data (i.e., information on damage incidents occurring after 1982) included in the rulemaking docket for today's final rule corroborate the fact that recycling operations can result in significant damage incidents.
- Excluding all hazardous secondary materials destined for recycling would allow materials to move in and out of the hazardous waste management system depending on what any person handling the hazardous secondary material intended to do with them. This seems inconsistent with the mandate to track hazardous wastes and control them from "cradle to grave."

Hence, EPA has interpreted the statute to confer jurisdiction over at least certain hazardous secondary materials destined for recycling. The Agency has therefore developed in part 261 of 40 CFR a definition of "solid waste" for Subtitle C regulatory purposes. (**Note:** This definition is narrower than the definition of "solid waste" for RCRA endangerment and information-gathering authorities. (*See* 40 CFR 261.1(b)). Also *Connecticut Coastal Fishermen's Association* v. *Remington Arms Co.*, 989 F.2d 1305, 1315 (2d Cir. 1993) holds that EPA's use of a narrower and more specific definition of solid waste for Subtitle C purposes is a reasonable interpretation of the statute. *See also Military Toxics Project* v. *EPA*, 146 F.3d 948 (DC Cir. 1998).)

EPA has always asserted that hazardous secondary materials are not excluded from its jurisdiction simply because someone claims that they will be recycled. EPA has consistently considered hazardous secondary materials destined for "sham recycling" to be discarded and, hence, to be solid wastes for Subtitle C purposes (*see* 45 FR 33093, May 19, 1980; 50 FR 638–39, Jan. 4, 1985). The U.S. Court of Appeals for the DC Circuit has agreed that materials undergoing sham recycling are discarded and, consequently, are solid wastes under RCRA (*see American Petroleum Institute* v. *EPA*, 216 F.3d 50, 58–59 (DC Cir. 2000)).

B. A Series of DC Circuit Court Decisions on the Definition of Solid Waste

Trade associations representing mining and oil refining interests challenged EPA's 1985 regulatory definition of solid waste. In 1987, the DC Circuit held that EPA exceeded its authority "in seeking to bring materials that are not discarded or otherwise disposed of within the compass of 'waste'" (*American Mining Congress* v. *EPA ("AMC I")*, 824 F.2d 1177, 1178 (DC Cir. 1987)).

The Court held that certain of the materials EPA was seeking to regulate were not "discarded materials" under RCRA section 1004(27). The Court also held that Congress used the term "discarded" in its ordinary sense, to mean "disposed of" or "abandoned" (824 F.2d at 1188–89). The Court further held that the term "discarded materials" could not include materials "* * * destined for beneficial reuse or recycling in a continuous process by the generating industry itself (because they) are not yet part of the waste disposal problem" (824 F.2d at 1190). The Court held that Congress had directly spoken to this issue, so that EPA's definition was not entitled to deference under *Chevron U.S.A., Inc.* v. *NRDC*, 467 U.S. 837 (1984) (824 F.2d at 1183, 1189–90, 1193).

At the same time, the Court did *not* hold that recycled materials could not be discarded. The Court mentioned at least two examples of recycled materials that EPA properly considered within its statutory jurisdiction, noting that used oil can be considered a solid waste (824 F.3d at 1187 (fn 14)). Also, the Court suggested that materials disposed of and recycled as part of a waste management program are within EPA's jurisdiction (824 F. 2d at 1179).

Subsequent decisions by the DC Circuit also indicate that some materials destined for recycling are "discarded" and therefore within EPA's jurisdiction. In particular, the Court held that emission control dust from steelmaking operations listed as hazardous waste "K061" is a solid waste, even when sent to a metals reclamation facility, at least where that is the treatment method required under EPA's land disposal restrictions program (*American Petroleum Institute* v. *EPA ("API I")*, 906 F.2d 729 (DC Cir. 1990)). In addition, the Court held that it is reasonable for EPA to consider as discarded (and solid wastes) listed wastes managed in units that are in part wastewater treatment units, especially where it is not clear that the industry actually reuses the materials (*AMC II*, 907 F. 2d 1179 (DC Cir. 1990)).

It also is worth noting that two other Circuits also have held that EPA has authority over at least some materials destined for reclamation rather than final discard. The U.S. Court of Appeals for the 11th Circuit found that "[i]t is unnecessary to read into the term 'discarded' a congressional intent that the waste in question must finally and forever be discarded" (*U.S.* v. *ILCO*, 996 F.2d 1126, 1132 (11th Cir. 1993) (finding that used lead batteries sent to

a reclaimer have been "discarded once" by the entity that sent the battery to the reclaimer)). In addition, the Fourth Circuit found that slag held on the ground untouched for six months before sale for use as road bed could be a solid waste (*Owen Electric Steel Co.* v. *EPA*, 37 F.3d 146, 150 (4th Cir. 1994)).

In 1998, EPA promulgated a rule in which EPA claimed Subtitle C jurisdiction over hazardous secondary materials recycled by reclamation within the mineral processing industry, the "LDR Phase IV rule" (63 FR 28556, May 26, 1998). In that rule, EPA promulgated a conditional exclusion for all types of mineral processing hazardous secondary materials destined for reclamation. EPA imposed a condition prohibiting land-based storage prior to reclamation because it considered hazardous secondary materials from the mineral processing industry that were stored on the land to be part of the waste disposal problem (63 FR 28581). The conditional exclusion decreased regulation over spent materials stored prior to reclamation, but increased regulation over by-products and sludges that exhibit a hazardous characteristic, and that are stored prior to reclamation. EPA noted that the statute does not authorize it to regulate "materials that are destined for immediate reuse in another phase of the industry's ongoing production process." EPA, however, took the position that materials that are removed from a production process for storage are not "immediately reused," and therefore are "discarded" (63 FR 28580).

The mining industry challenged the rule, and the DC Circuit vacated the provisions that expanded jurisdiction over characteristic by-products and sludges destined for reclamation (*Association of Battery Recyclers* v. *EPA ("ABR")*, 208 F.3d 1047 (DC Cir. 2000)). The Court held that it had already resolved the issue presented in ABR in its opinion in *AMC I*, where it found that "* * * Congress unambiguously expressed its intent that 'solid waste' (and therefore EPA's regulatory authority) be limited to materials that are 'discarded' by virtue of being disposed of, abandoned, or thrown away" (208 F.2d at 1051). It repeated that materials reused within an ongoing industrial process are neither disposed of nor abandoned (208 F.3d at 1051–52). It explained that the intervening *API I* and *AMC II* decisions had not narrowed the holding in *AMC I* (208 F.3d at 1054–1056).

Notably, the Court did *not* hold that storage before reclamation automatically makes materials "discarded." Rather, it held that "* * * at least some of the secondary material EPA seeks to regulate as solid waste (in the mineral processing rule) is destined for reuse as part of a continuous industrial process and thus is not abandoned or thrown away" (208 F.3d at 1056).

In its most recent opinion dealing with the definition of solid waste, *Safe Food and Fertilizer* v. *EPA ("Safe Food")*, 350 F.3d 1263 (DC Cir. 2003), the Court upheld an EPA rule that excludes from the definition of solid waste hazardous secondary materials used to make zinc fertilizers, and the fertilizers themselves, so long as the recycled materials meet certain handling, storage and reporting conditions and the resulting fertilizers have concentration levels for lead, arsenic, mercury, cadmium, chromium, and dioxins that fall below specified thresholds (Final Rule, "Zinc Fertilizers Made From Recycled Hazardous Secondary Materials" ("Fertilizer Rule"), 67 FR 48393, July 24, 2002). EPA determined that if these conditions are met, the hazardous secondary materials used to make the fertilizer have not been discarded. The conditions apply to a number of recycled materials not produced in the fertilizer production industry, including certain zinc-bearing hazardous secondary materials, such as brass foundry dusts.

EPA's reasoning was that market participants, consistent with the EPA-required conditions in the rule, would treat the exempted materials more like valuable products than like negatively-valued wastes and, thus, would manage them in ways inconsistent with discard. In addition, the fertilizers derived from these recycled feedstocks are chemically indistinguishable from analogous commercial products made from raw materials (350 F.3d at 1269). The Court upheld the rule based on EPA's explanation that market participants manage materials in ways inconsistent with discard, and the fact that the levels of contaminants in the recycled fertilizers were "identical" to the fertilizers made with virgin raw materials. The Court held that this interpretation of "discard" was reasonable and consistent with the statutory purpose. The Court noted that the identity principle was defensible because the differences in health and environmental risks between the two types of fertilizers are so slight as to be substantively meaningless.

However, the Court specifically stated that it "need not consider whether a material could be classified as a non-discard exclusively on the basis of the market-participation theory" (350 F.3d at 1269). The Court only determined that the combination of market participants' treatment of the materials, EPA required management standards, and the "identity principle" are a reasonable set of tools to establish that the recycled hazardous secondary materials and fertilizers are not discarded.

C. October 2003 Proposal To Revise the Definition of Solid Waste

Prompted by concerns articulated in various Court opinions decided up to that point, in October 2003, EPA proposed a rule that material generated and reclaimed in a continuous process within the same industry is not discarded for purposes of Subtitle C, provided the recycling process is legitimate (68 FR 61558, October 28, 2003). "Same industry" was defined as industries sharing the same 4-digit North American Industry Classification System (NAICS) code.

In the same notice, EPA also solicited comment on several different alternatives to the proposed exclusion. The first alternative was whether to exclude from the definition of solid waste those hazardous secondary materials that are generated and reclaimed in a continuous process on-site (as defined in 40 CFR 260.10), even if different industries were involved. This exclusion would be based on the premise that materials recycled on-site in a continuous process are unlikely to be discarded because they would be closely managed and monitored by a single entity that is intimately familiar with both the generation and reclamation of the hazardous secondary material. In addition, no off-site transport of the hazardous secondary material (with its attendant risks) would occur, and there would be few questions about potential liability in the event of mismanagement or mishap.

The second alternative was an exclusion for certain situations within the chemical manufacturing industry that might present unique recycling situations. Specifically, within the chemical manufacturing industry, the first manufacturer contracts out production of certain chemicals to another manufacturer (referred to as batch or tolling operations). The second manufacturer may generate hazardous secondary materials that could be returned to the first chemical manufacturer for reclamation.

The third alternative would have provided a broader conditional exclusion from the RCRA hazardous waste regulations for essentially all hazardous secondary materials that are legitimately recycled by reclamation. The purpose of this broader exclusion

would have been to encourage reclamation by lowering costs of recycling, while still protecting human health and the environment. The Agency suggested that additional requirements or conditions might be appropriate to protect human health and the environment for this broader exclusion, compared to the same-industry exclusion that we proposed. Examples of such additional conditions could include recordkeeping and reporting requirements, along with safeguards on storage or handling.

In response to the October 2003 proposal, a number of commenters criticized the Agency specifically for not having conducted a study of the potential impacts of the proposed regulatory changes. These commenters expressed the general concern that deregulating hazardous secondary materials that are reclaimed in the manner proposed could result in mismanagement of these materials and, thus, could create new cases of environmental damage that would require remedial action under federal or state authorities. Some of the commenters further cited a number of examples of environmental damage that were attributed to hazardous secondary material recycling, including a number of sites listed on the Superfund National Priorities List (NPL).

However, other commenters to the October 2003 proposal expressed the view that the great majority of these cases of recycling-related environmental problems occurred before RCRA, CERCLA, or other environmental programs were established in the early 1980s. These commenters further argued that these environmental programs—most notably, RCRA's hazardous waste regulations and the liability provisions of CERCLA—have created strong incentives for proper management of recyclable hazardous secondary materials and recycling residuals. Several commenters further noted that, because of these developments, industrial recycling practices have changed substantially since the early 1980s and present day generators and recyclers are much better environmental stewards than in the pre-RCRA/CERCLA era. Thus, they argued, cases of "historical" recycling-related environmental damage are not particularly relevant or instructive with regard to modifying the current RCRA hazardous waste regulations for hazardous secondary materials recycling.

D. Recycling Studies

In light of these comments on the October 2003 proposal, and in deliberating on how to proceed with this rulemaking effort, the Agency decided that additional information on hazardous secondary material recycling would benefit the regulatory decision-making process, and would provide stakeholders with a clearer picture of the hazardous secondary material recycling industry in this country. Accordingly, the Agency examined three basic issues that we believed were of particular importance to informing this rulemaking effort:

- How do responsible generators and recyclers of hazardous secondary materials ensure that recycling is done in an environmentally safe manner?
- To what extent have hazardous secondary material recycling practices resulted in environmental problems in recent years, and why?
- Are there certain economic forces or incentives specific to hazardous secondary material recycling that can explain why environmental problems can sometimes originate from such recycling activities?

Reports documenting these studies have been available for comment in the docket for this rulemaking, under the following titles:

- *An Assessment of Good Current Practices for Recycling of Hazardous Secondary Materials* (EPA–HQ–RCRA–2002–0031–0354) ("successful recycling study").
- *An Assessment of Environmental Problems Associated With Recycling of Hazardous Secondary Materials* (EPA–HQ–RCRA–2002–0031–0355) ("environmental problems study").
- *A Study of Potential Effects of Market Forces on the Management of Hazardous Secondary Materials Intended for Recycling* (EPA–HQ–RCRA–2002–0031–0358) ("market forces study").

The results of these three studies have informed and supported EPA's decision making in today's final rule.

The successful recycling study has provided information to the Agency that has helped us determine what types of controls would be appropriate for hazardous secondary materials sent for reclamation to determine that they are handled as commodities rather than wastes. EPA found that responsible recycling practices used by generators and recyclers to manage hazardous secondary materials fall into two general categories. The first category includes the audit activities and inquiries performed by a generator of a hazardous secondary material to determine whether the entity to which it is sending such material is equipped to responsibly manage it without the risk of releases or other environmental damage. These recycling and waste audits of other companies' facilities form a backbone of many of the transactions in the hazardous secondary materials market. The second category of responsible recycling practices consists of the control practices that ensure responsible management of any given shipment of hazardous secondary material, such as the contracts under which the transaction takes place and the tracking systems in place that can inform a generator that its hazardous secondary material has been properly managed.

As discussed later in today's preamble, these findings helped inform EPA's decision to require that a hazardous secondary material generator conduct reasonable efforts to ensure its materials are properly and legitimately recycled, and to require certain recordkeeping requirements.

The goal of the environmental problems study was to identify and characterize environmental problems that have been attributed to some types of hazardous secondary material recycling activity that are relevant for the purpose of this rulemaking effort. To address commenters' concerns that historic damages are irrelevant to current practices, EPA only included cases where damages occurred after 1982 (post-RCRA and -CERCLA implementation). The study identifies 208 cases in which environmental damages of some kind occurred from some type of recycling activity and that otherwise fit the scope of the study. The Agency believes that the occurrence of certain types of environmental problems associated with current recycling practices shows that discard has occurred. In particular, instances where materials were abandoned (e.g., in warehouses) and which required removal overseen by a government agency and expenditure of public funds clearly demonstrate that the hazardous secondary material was discarded. Of the 208 damage cases, 69 cases (33%) involve abandoned materials. The relatively high incidence of abandoned materials likely reflects the fact that bankruptcies or other types of business failures were associated with 138 (66%) of the cases.

In addition, the pattern of environmental damages that resulted from the mismanagement of recyclable materials (including contamination of soils, groundwater, surface water and air) is a strong indication that the hazardous secondary materials were generally not managed as valuable commodities and were discarded. Of the 208 damage cases, 81 cases (40%) primarily resulted from the

mismanagement of recyclable hazardous secondary materials. Mismanagement of recycling residuals was the primary cause in 71 cases (34%). Often, in the case of mismanagement of recycling residues, reclamation processes generated residuals in which the toxic components of the recycled materials were separated from the non-toxic components, and these portions of the hazardous secondary material were then mismanaged and discarded. Examples of this include a number of drum reconditioning facilities, where large numbers of used drums were cleaned out to remove small amounts of remaining product such as solvent, and these wastes were then improperly stored or disposed.

As discussed later in today's preamble, these findings helped inform EPA's decision to require that the hazardous secondary material be contained in the unit and managed in a manner that is at least as protective as an analogous raw material (where there is an analogous material), that the recycling residuals be properly managed, and that the reclamation facility and any intermediate facilities have financial assurance. In addition, the relatively small proportion of cases of damages from on-site recycling (13 of the 208 cases (6%)) lends support for EPA's decision to include fewer limitations on the exclusion for hazardous secondary materials recycled under the control of the generator.

The market forces study uses accepted economic theory to describe how various market incentives can influence a firm's decision-making process when the recycling of hazardous secondary materials is involved. This study helps explain some of the possible fundamental economic drivers of both the successful and unsuccessful recycling practices, which, in turn, helped the Agency to design the exclusions being finalized today.

As pointed out by some commenters to the October 2003 proposed rule, the economic forces shaping the behavior of firms that recycle hazardous secondary materials are often different from those at play in manufacturing processes using virgin materials. The market forces study uses economic theory to provide information on how certain characteristics can influence three different recycling models to encourage or discourage an optimal outcome. The three recycling models examined are: (1) Commercial recycling, where the primary business of the firms is recycling hazardous secondary materials that are accepted for recycling from off-site industrial sources (which usually pay a fee); (2) industrial intra-company recycling, where firms generate hazardous secondary materials as by-products of their main production processes and recycle the hazardous secondary materials for sale or for their own reuse in production; and (3) industrial inter-company recycling, where firms whose primary business is not recycling, but either use or recycle hazardous secondary materials obtained from other firms, with the objective of reducing the cost of their production inputs. The report looks at how the outcome from each model is potentially affected by three market characteristics: (1) Value of the recycled product, (2) price stability of recycling output or inputs, and (3) net worth of the firm.

While an individual firm's decision-making process is based on many factors and attempting to extrapolate a firm's likely behavior from a few factors could be an over-simplification, when used in conjunction with other pieces of information, the economic theory can be quite illuminating. For example, according to the market forces study, the industrial intra- and inter-company recyclers have more flexibility in adjusting to unstable recycling markets (e.g., during price fluctuations, these companies can more easily switch from recycling to disposal or from recycled inputs to virgin inputs). Therefore, they would be expected to be less likely to have environmental problems from over-accumulated materials. On the other hand, certain specific types of commercial recycling, where the product has low value, the prices are unstable, and/or the firm has a low net worth, could be more susceptible to environmental problems from the over-accumulation of hazardous secondary materials, especially when compared to recycling by a well-capitalized firm that yields a product with high value. In both cases, these predicted outcomes appear to be supported by the results of the environmental problems study, which show the majority of problems occur at off-site commercial recyclers.

However, as shown by the successful recycling study, generators who might otherwise bear a large liability from poorly managed recycling at other companies have addressed this issue by carefully examining the recyclers to which they send their hazardous secondary materials to ensure that they are technically and financially capable of performing the recycling. In addition, we have seen that successful recyclers (both commercial and industrial) have often taken advantage of mechanisms, such as long-term contracts to help stabilize price fluctuations, allowing recyclers to plan their operations better.

Further discussion of the recycling studies, including the methodology and limitations of the studies, can be found in the March 2007 supplemental proposal (72 FR 14178–83), and the studies themselves can be found in the docket for today's rulemaking.

E. March 2007 Supplemental Proposal To Revise the Definition of Solid Waste

To provide public notice on the recycling studies discussed above, in March 2007, EPA published a supplemental proposal (72 FR 14172, March 26, 2007). In addition, based on the comments received on the October 2003 proposal, EPA also decided to restructure our approach to revising the definition of solid waste to more directly consider whether particular materials are not considered "discarded" and thus are not solid and hazardous wastes subject to regulation under Subtitle C of RCRA. We agreed with the many commenters on the October 2003 proposal who said that whether materials are recycled within the same NAICS code is not an appropriate indication of whether they are discarded. NAICS designations are designed to be consistent only with product lines, so that the effect of our October 2003 proposal would be that hazardous secondary materials generated and reclaimed under the control of the generator would not be excluded, even though the generator has not abandoned the material and has every opportunity and incentive to maintain oversight of, and responsibility for, the material that is reclaimed (*see* ABR, 208 F.2d at 1051 (noting that discard has not taken place where the producer saves and reuses secondary materials)).

Instead, in March 2007, EPA proposed two exclusions for hazardous secondary materials recycled under the control of the generator (one exclusion would apply to hazardous secondary materials managed in non-land-based units, whereas the other exclusion would apply to hazardous secondary materials managed in land-based units) and an additional exclusion for hazardous secondary materials transferred to another party for reclamation.

For the exclusions for hazardous secondary materials reclaimed under the control of the generator, EPA described three circumstances under which we believe that discard does not take place and where the potential for environmental releases is low to non-existent. The three situations involve legitimate recycling of hazardous secondary materials that are generated and reclaimed at the generating facility, at a different facility within the same

company, or through a tolling arrangement. Under all three circumstances, the hazardous secondary materials must be generated and reclaimed within the United States or its territories. Because the hazardous secondary material generator in these situations still finds value in the hazardous secondary materials, has retained control over them, and intends to use them, EPA proposed to exclude these materials from being a solid waste and, thus, from regulation under Subtitle C of RCRA if the recycling is legitimate and if the hazardous secondary materials are not speculatively accumulated.

In those cases, however, where generators of hazardous secondary materials do not reclaim the materials themselves, it often may be a sound business decision to ship the hazardous secondary materials to a commercial facility or another manufacturer for reclamation in order to avoid the costs of disposing of the material. In such situations, the generator has relinquished control of the hazardous secondary materials and the entity receiving such materials may not have the same incentives to manage the hazardous secondary materials as a useful product, especially if they are paid a fee for managing the hazardous secondary materials.

Accordingly, for the exclusion for hazardous secondary materials transferred to another party for reclamation, the Agency proposed conditions that, when met, would indicate that these hazardous secondary materials are not discarded. One of the conditions would require the generator to make reasonable efforts to determine that its hazardous secondary materials will be properly and legitimately recycled (thus demonstrating the hazardous secondary material is not being discarded). Another condition would require the reclamation facility to have adequate financial assurance (thus demonstrating that the hazardous secondary material will not be abandoned). In addition, EPA proposed that both the generator and reclaimer would need to maintain shipping records (to demonstrate that the hazardous secondary material was sent for reclamation and was received by the reclaimer), and the reclaimer would be subject to additional storage and residual management standards (to address the instances of discard observed at off-site reclamation facilities in the damage cases).

In addition, in March 2007, EPA's supplemental proposal included a case-by-case petition process to allow applicants to demonstrate that their hazardous secondary materials are not discarded and therefore are not solid wastes.

Finally, in EPA's March 2007 supplemental proposal, EPA proposed a definition of legitimate recycling that restructured the legitimacy factors originally proposed in October 2003. The proposed legitimacy factors would be used to determine whether the recycling of hazardous secondary materials is legitimate.

IV. How Do the Provisions in the Final Rule Compare to Those Proposed on March 26, 2007?

EPA is finalizing the exclusions largely as proposed in March 2007, with some revisions and clarifications. The following is a brief overview of the revisions to the proposal, with references to additional preamble discussions for more detail.

For the exclusion for hazardous secondary materials that are legitimately reclaimed under the control of the generator, we are clarifying the scope of the exclusion, including addressing issues with defining "on-site," "same company," and "tolling arrangement." We have also added additional data elements to the notification requirement, clarified that the hazardous secondary materials must be contained when managed in non-land-based units, as well as in land-based units, because hazardous secondary materials that are released to the environment and not immediately recovered are discarded, and added a reference to the new legitimacy provision in § 260.43. We have also revised the definition of land-based unit to be "an area where hazardous secondary materials are placed in or on the land before recycling," while also clarifying that the definition does not include production units. For further discussion of the generator-controlled exclusion, see section VII of this preamble.

For the exclusion for hazardous secondary materials that are transferred for the purpose of reclamation, we are clarifying that hazardous secondary materials held at a transfer facility for less than 10 days will be considered to be in transport. We are also allowing the use of intermediate facilities that store hazardous secondary materials for more than 10 days, provided the facilities comply with the same conditions applicable to reclamation facilities. In addition, the hazardous secondary material generator must select the reclamation facility (or facilities) that can be used and must perform reasonable efforts on both the intermediate facility and reclamation facility (or facilities), and the intermediate facility must send the hazardous secondary material to the reclamation facility that the generator selected. For the reasonable efforts condition, we have included specific questions in the regulatory language, and are requiring both documentation and certification. We are also clarifying how the financial assurance condition applies to reclamation and intermediate facilities excluded under the transfer-based exclusion, including tailored regulatory language for financial assurance specific to these types of facilities. We have also added a reference to the new legitimacy provision in § 260.43. For further discussion, see section VIII of this preamble.

Regarding legitimacy, we are adding legitimacy as a condition of the exclusions and the non-waste determinations in this rule, but are not finalizing the language proposed in § 261.2(g) for all recycling. The new legitimacy provision can be found at § 260.43. For further discussion, see section IX of this preamble.

Finally, for the non-waste determination process, we have limited the categories for non-waste determinations to materials reclaimed in a continuous industrial process and materials indistinguishable from products and we have revised the criteria to make them more consistent across the two categories of non-waste determinations. Furthermore, we are not finalizing the non-waste determination for materials reclaimed under the control of the generator via a tolling arrangement or similar contractual arrangement. For further discussion, see sections X and XIX of this preamble.

V. How Does the Concept of Discard Relate to the Final Rule?

In the March 2007 supplemental proposal, EPA explained how the concept of "discard" is the central organizing idea behind the revisions to the definition of solid waste being finalized today (72 FR 14178). Basing the revisions on "discard" reflects the fundamental logic of the RCRA statute. As stated in RCRA Section 1004(27), "solid waste" is defined as "* * * any garbage, refuse, sludge from a waste treatment plant, or air pollution control facility and other discarded material * * * resulting from industrial, commercial, mining and agricultural activities. * * *" Therefore, in the context of this final rule, a key issue is the circumstances under which a hazardous secondary material that is recycled by reclamation is or is not discarded.

The March 2007 supplemental proposal represented a shift from the approach taken in the October 2003 proposal, which proposed to exclude from the definition of solid waste any hazardous secondary material generated and reclaimed in a continuous process within the same industry, provided the reclamation was legitimate. "Same industry" was defined as industries sharing the same 4-digit NAICS code. The basis for that proposed exclusion was the holding in *American Mining Congress* v. *EPA ("AMC I")*, 824 F.2d 1177 (DC Cir. 1987) that materials destined for beneficial reuse in a continuous process by the generating industry are not discarded (68 FR 61563, 61564–61567).

Commenters critical of the October 2003 proposal argued, among other things, that EPA failed to present a reasoned analysis of the indicia of discard (72 FR 14184–14185). In evaluating these comments, EPA determined that the effect of our October 2003 proposal would be that some hazardous secondary materials generated and reclaimed under the control of the generator would not be excluded, even though the generator had not abandoned the material and had every opportunity and incentive to maintain oversight of, and responsibility for, the hazardous secondary material being reclaimed. Under these circumstances, we determined in March 2007 that discard has generally not occurred (72 FR 14185). Therefore, in the March 2007 supplemental proposal, EPA decided to examine the concept of discard, which is the driving principle behind the court's holdings on the definition of solid waste, rather than trying to fit materials into specific fact patterns addressed by the court (*see* 72 FR 14175).

EPA continues to believe that the concept of discard is the most important organizing principle governing the determinations we have made in today's final rule. In the series of decisions discussed above relating to the RCRA definition of solid waste, the Court of Appeals for the DC Circuit has consistently cited a plain language definition of discard, as meaning "disposing, abandoning or throwing away." Today's final rule is consistent with that definition. Below is a discussion of each provision of the final rule with an explanation of how it relates to discard. Further discussion of the concept of discard and its relationship to specific provisions and ways of implementing this rule is found in sections V.A through V.D, below.

The Agency also incorporates in this preamble to the final rule all determinations in the March 2007 supplemental proposal, except to the extent they are inconsistent with the determinations in this preamble, regarding the conditions for the solid waste exclusions. In addition, EPA notes that it did not reopen the specific details of the speculative accumulation regulation regarding the time periods under which materials are to be recycled, since these periods have been part of the Agency's regulations for many years and are familiar to persons who are affected by the regulations.

A. Discard and the Generator-Controlled Exclusions

In the March 2007 supplemental proposal, EPA determined that if the generator maintains control over the recycled hazardous secondary material, the material is legitimately recycled under the standards established in the proposal, and the material is not speculatively accumulated within the meaning of EPA's regulations, then the hazardous secondary material is not discarded. This is because the hazardous secondary material is being treated as a valuable commodity rather than as a waste. By maintaining control over, and potential liability for, the recycling process, the generator ensures that the hazardous secondary materials are not discarded (*see* ABR 208 F.3d 1051 ("Rather than throwing these materials [destined for recycling] away, the producer saves them; rather than abandoning them, the producer reuses them.")) (72 FR 14178).

EPA continues to believe that when a generator legitimately recycles hazardous secondary material under its control, the generator has not abandoned the material and has every opportunity and incentive to maintain oversight of, and responsibility for, the hazardous secondary material that is reclaimed.

In determining when recycling occurs "under the control" of the generator, EPA looked at three scenarios: Recycling performed on-site, recycling performed within the same company, and recycling performed under certain specific tolling arrangements.

In the March 2007 supplemental proposal, EPA noted that, of the 208 recycling cases that caused environmental damage, only 13 (approximately 6%) occurred as a result of on-site recycling. We also agreed with commenters on the October 2003 proposal who asserted that "generators who recycle materials on-site (even if the reclamation takes place in a different NAICS code) are likely to be familiar with the material and more likely to maintain responsibility for the materials" (72 FR 14185).

EPA also determined that this rationale applies to legitimate reclamation taking place within the same company. In the case of same-company recycling, both the generating facility and the reclamation facility (if they are different) would be familiar with the hazardous secondary materials and the company would be ultimately liable for any mismanagement of the hazardous secondary materials. Under these circumstances, the incentive to avoid such mismanagement would be so strong that mismanagement also would be unlikely.

In the case of certain tolling operations, EPA determined in the March 2007 supplemental proposal that a certain specific type of tolling arrangement provides equivalent assurance that recycling is performed "under the control of the generator" and does not constitute discard. Under this type of arrangement, one company (the tolling contractor) contracts with a second company (the toll manufacturer) to produce a specialty chemical from specified unused materials identified in the tolling contract. The toll manufacturer produces the chemical and the production process generates a hazardous secondary material (such as a spent solvent) which is routinely reclaimed at the tolling contractor's facility. The typical toll manufacturing contract contains detailed specifications about the product to be manufactured, including management of any hazardous secondary materials that are produced and returned to the tolling contractor for reclamation. Under this scenario, the hazardous secondary material continues to be managed as a valuable product, so discard has not occurred. Moreover, because the contract specifies that the tolling contractor retains ownership of, and responsibility for, the hazardous secondary materials, there is a strong incentive to avoid any mismanagement or release. In essence, the tolling contractor has outsourced a step in its manufacturing process, but continues to take responsibility and maintain control of the process as a whole, including both the unused materials going into the process and the product and hazardous secondary materials resulting from the process.

For all three of these generator-controlled exclusions—reclamation performed on-site, within the same company, and via certain tolling arrangements—EPA continues to find that the facility owner still finds value in the hazardous secondary materials, has retained control over them, and intends to reclaim them. Therefore, EPA

is finalizing an exclusion for these materials, with certain restrictions discussed below.

In the March 2007 supplemental proposal, EPA also noted that management in a land-based unit does not automatically indicate a hazardous secondary material is being discarded. As long as the hazardous secondary material is contained and is destined for recycling under the control of the generator, it would still meet the terms of the exclusion. However, if the hazardous secondary material is not managed as a valuable product and, as a result, a significant release to the environment from the unit occurs and is not immediately recovered, the hazardous secondary material in the land-based unit would be considered discarded (72 FR 14186). Thus, EPA proposed that the hazardous secondary material must be contained in the land-based unit in order for the exclusion to be applicable.

However, in making this finding that hazardous secondary materials managed in a land-based unit must be contained in order to retain the exclusion, EPA did not intend to imply that hazardous secondary materials managed in non-land-based units do not need to be contained. Hazardous secondary materials released to the environment are not destined for recycling and are clearly discarded whether they originated from a land-based unit or not. Because non-land-based units do not involve direct contact with the land, in the March 2007 supplemental proposal, EPA did not include an explicit "contained" restriction for these units. However, as commenters noted, it is still possible for non-land-based units to leak or otherwise release significant amounts of hazardous secondary materials to the environment, even if they are not in direct contact with the land, resulting in those materials being discarded. Thus, for today's final rule, EPA is requiring that hazardous secondary materials must be contained (whether it is managed in land-based units or non-land-based units) in order to identify the hazardous secondary materials that are not being discarded and, therefore, are not solid wastes.

Another restriction on the generator-controlled exclusions is the prohibition against speculative accumulation. As noted in the March 2007 supplemental proposal, restrictions on speculative accumulation (40 CFR 261.1(c)(8)) have been an important element of the RCRA hazardous waste recycling regulations since they were promulgated on January 4, 1985. Historically, hazardous secondary materials excluded from the definition of solid waste generally become wastes when they are speculatively accumulated, because, at that point, they are considered to be unlikely to be recycled and therefore discarded. According to this regulatory provision, a hazardous secondary material is accumulated speculatively if the person accumulating it cannot show that the material is potentially recyclable; further, the person accumulating the hazardous secondary material must show that during a calendar year (beginning January 1) the amount of such material that is recycled, or transferred to a different site for recycling, must equal at least 75% by weight or volume of the amount of that material at the beginning of the period. As noted in the March 2007 supplemental proposal, this provision already applies to hazardous secondary materials that are not otherwise considered to be wastes when recycled, such as materials used as ingredients or commercial product substitutes, materials that are recycled in a closed-loop production process, or unlisted sludges and by-products being reclaimed (72 FR 14188). Given that a significant portion of the damage cases stemmed from over-accumulation of hazardous secondary materials, EPA continues to believe that a restriction on speculative accumulation is needed to determine that the hazardous secondary material is being recycled and is not discarded.

In addition, as with all recycling exclusions under RCRA, the excluded hazardous secondary materials must be recycled legitimately. As discussed in section IX of this preamble, EPA has long articulated the need to distinguish between "legitimate" (i.e., true) recycling and "sham" recycling, beginning with the preamble to the 1985 regulations that established the definition of solid waste (50 FR 638, January 4, 1985) and continuing with the October 2003 proposed codification of criteria for identifying legitimate recycling. Because there can be a significant economic incentive to manage hazardous secondary materials outside the RCRA regulatory system, there is a potential for some handlers to claim that they are recycling, when, in fact, they are conducting waste treatment and/or disposal in the guise of recycling. While the legitimacy construct applies to both excluded recycling and the recycling of regulated hazardous wastes, hazardous secondary materials that are not legitimately recycled (i.e., that are being treated and/or disposed in the guise of recycling) are discarded materials and, therefore, are solid wastes.

A final restriction on the generator-controlled exclusion from the definition of solid waste is that the hazardous secondary material must be generated and recycled within the United States.[1] Because hazardous secondary materials that are exported for recycling passes out of the regulatory control of the federal government, making it difficult to determine if these activities are "under the control of the generator" and because, as noted in the March 2007 supplemental proposal, we do not have sufficient information about most recycling activities outside of the United States to decide whether discard is likely or unlikely (72 FR 14187), EPA continues to find that this restriction is needed to properly define when the hazardous secondary material is not being discarded.

B. Discard and the Transfer-Based Exclusion

As EPA noted in the March 2007 supplemental proposal, in cases where generators of hazardous secondary materials do not reclaim the materials themselves, it often may be a sound business decision to ship the hazardous secondary materials to be reclaimed to a commercial facility or another manufacturer in order to avoid the costs of disposing of the material.

In such situations, EPA determined that the generator has relinquished control of the hazardous secondary materials and the entity receiving such materials may not have the same incentives to manage them as a useful product (72 FR 14178). This is evidenced by the results of the environmental problems study, found in the docket of today's final rule. Of the 208 damage cases EPA identified for the March 2007 supplemental proposal, 195 (about 94%) were from off-site third-party recyclers, with clear instances of discard resulting in risk to human health and the environment, including cases of large-scale soil and ground water contamination with remediation costs in some instances in the tens of millions of dollars.

In addition, the market forces study in the docket for today's rulemaking supports the conclusion that the pattern of discard at off-site, third party reclaimers is a result of inherent differences between commercial

[1] As discussed in section VII.C., persons taking advantage of the generator-controlled option must also notify the regulatory authority. This notification requirement is needed to enable credible evaluation of the status of hazardous secondary materials under RCRA and to ensure the terms of the exclusions are being met by generators and reclaimers. These types of notification requirements in this rule are being promulgated under the authority of RCRA section 3007.

recycling and normal manufacturing. As opposed to manufacturing, where the cost of raw materials or intermediates (or inputs) is greater than zero and revenue is generated primarily from the sale of the output, hazardous secondary materials recycling can involve generating revenue primarily from receipt of the hazardous secondary materials (72 FR 14182). Recyclers of hazardous secondary materials in this situation may thus respond differently from traditional manufacturers to economic forces and incentives, accumulating more inputs (hazardous secondary materials) than can be processed (reclaimed). In addition, commercial recyclers appear to have less flexibility than in-house recyclers (e.g., during price fluctuations, in-house recyclers can more easily switch from recycling to disposal or from recycled inputs to virgin inputs, which commercial recyclers cannot) (72 FR 14183).

After reviewing public comments on the recycling studies (see section XV.D. of today's preamble), EPA continues to believe that conditions are needed under the transfer-based exclusion for the Agency to determine that these hazardous secondary materials are not discarded.[2]

One key condition that reflects the basic premise underlying the exclusion is the condition that the hazardous secondary material generator perform and document reasonable efforts to ensure that its hazardous secondary material will be properly and legitimately recycled. As EPA explained in the March 2007 supplemental proposal, in order to demonstrate that hazardous secondary materials will not be discarded, generators who transfer their hazardous secondary materials to a third party must have a reasonable understanding of who will be reclaiming the materials and how they will be managed and reclaimed and a reasonable assurance that the recycling practice is safe and legitimate (72 FR 14194). In order for a generator to determine whether its hazardous secondary materials are not solid wastes because they are not discarded, the generator must make a reasonable effort to ensure that the reclaimer intends to legitimately recycle the material and not discard it, and that the reclaimer (and any intermediate facility) will properly manage the material.

EPA continues to find that the reasonable efforts condition is critical in determining when hazardous secondary materials sent to another party for reclamation are not discarded. According to the successful recycling study found in the docket for today's rulemaking, generators of hazardous secondary materials frequently perform audit activities and inquiries to determine whether the entity to which they are sending hazardous secondary materials is equipped to responsibly and legitimately reclaim and manage those materials without the risk of releases or other environmental damage. These recycling and waste audits of other companies' facilities form a backbone of many of the transactions in the hazardous secondary materials markets. As noted in the March 2007 supplemental proposal, EPA's successful recycling study quotes one large recycling and disposal vendor as stating that of its new customers, 60% of the large customers and 30–50% of the smaller customers now perform audits on them (72 FR 14191). Thus, although these practices are not universal, they do indicate that there are currently many generators who recognize the risk of third-party recyclers discarding their hazardous secondary materials and who take responsibility to ensure that this discard does not occur. By codifying the reasonable efforts condition of the transfer-based exclusion, EPA believes that hazardous secondary materials generated by companies who take this type of responsibility are not being discarded.

EPA has developed a reasonable efforts condition that is objective and is based on the types of information that are typically gathered in environmental audits currently performed by generators. However, one piece of information that is not included under the reasonable efforts provision being finalized today is the financial health of the reclamation facility. While EPA agrees with comments received that state that evaluating the financial health of a company can be a useful exercise, and encourages companies to do so, it is not an activity that lends itself to an objective standard that would be workable in a solid waste identification regulation.

However, the financial health of a reclamation facility can still be a crucial consideration in determining whether discard is taking place. According to the successful recycling study, an examination of a company's finances is an important part of many environmental audits. In addition, the environmental problems study showed that bankruptcies or other types of business failures were associated with 138 (66%) of the damage cases, and the market forces study identified a low net worth of a firm as a strong indication of a sub-optimal outcome of recycling.

To address the issue of the correlation of financial health with the absence of discard, EPA proposed in the March 2007 supplemental proposal to require that reclamation facilities obtain financial assurance. The financial assurance requirements are designed to help EPA determine that the hazardous secondary material generator is not discarding the hazardous secondary material by sending it to a reclamation facility that is financially unsound.

In addition, by obtaining financial assurance, the owner/operator of the reclamation facility (or intermediate facility) is making a direct demonstration that it will not abandon the hazardous secondary material. Discard through abandonment was a major cause of damages identified in the environmental problems study. Of the 208 damage cases, 69 (33%) cases involved abandoned materials. By obtaining financial assurance, a reclaimer (or intermediate facility) is demonstrating that even if events beyond its control make its operations uneconomical, the hazardous secondary material will not be abandoned.

Another major cause of damages identified in the environmental problems study was mismanagement of recyclable materials, constituting the primary cause of damage in 81 (40%) of the 208 cases. Accordingly, in the March 2007 supplemental proposal, EPA proposed a condition for reclaimers that they must manage the hazardous secondary materials in at least as protective a manner as they would an analogous raw material, and in such a way that the hazardous secondary materials would not be released into the environment (72 FR 14195). After reviewing the comments, EPA continues to find that such a condition is needed for the Agency to determine that the hazardous secondary materials are not discarded.

The third major source of damages identified in the environmental problems study was mismanagement of residuals generated from the reclamation activity, constituting the primary cause of damage in 71 (34%) of the 208 cases. As discussed in the March 2007 supplemental proposal, EPA found that in many cases, the

[2] These are conditions beyond the prohibition on speculative accumulation, the requirement that the hazardous secondary material be contained, and the requirement that the materials be legitimately recycled, as described in section VII.C., which would also apply to the transfer-based exclusion. The transfer-based exclusion also includes a notification requirement, which is needed to enable credible evaluation of the status of hazardous secondary materials under section 3007 of RCRA and to ensure the terms of the exclusions are being met by generators, intermediate facilities, and reclaimers.

residuals were comprised of the most hazardous components of the hazardous secondary materials (e.g., polychlorinated biphenyls (PCBs) from transformers) and were simply disposed of in on-site landfills or piles, with little regard for the environmental consequences of such mismanagement or possible CERCLA liabilities associated with cleanup of these releases. Therefore, EPA proposed that "any residuals that are generated from reclamation processes will be properly managed. If any residuals exhibit a hazardous characteristic according to subpart C of 40 CFR part 261, or themselves are listed hazardous wastes, they are hazardous wastes (if discarded) and must be managed according to the applicable requirements of 40 CFR parts 260 through 272" (72 FR 17195). EPA continues to find that this condition is important to clarify the regulatory status of these waste materials, and to emphasize in explicit terms that the residuals generated from reclamation operations must be managed properly (i.e., consistent with federal and state requirements).

Finally, other provisions of the transfer-based exclusion help ensure that the hazardous secondary material is properly transferred to the reclamation facility for recycling. Only the hazardous secondary material generator, transporter, intermediate facility and reclaimer can handle the material. (Note that, as with hazardous waste, a hazardous secondary material can be held up to 10 days at a transfer facility and still be considered as being in transport.) The hazardous secondary material generators, intermediate, and reclamation facilities claiming the exclusion must keep records of the hazardous secondary material shipments, and reclamation and intermediate facilities must send confirmations of receipt back to the hazardous secondary material generator. Thus, all parties responsible for the excluded hazardous secondary materials will be able to demonstrate that the materials were in fact sent for reclamation and arrived at the intended facility and were not discarded in transit. For hazardous secondary material generators who are exporting to other countries for reclamation, notice and consent must be obtained, thus facilitating oversight of the hazardous secondary material when sent beyond the borders of the United States, helping to ensure that it is recycled rather than discarded.

C. Discard and Non-Waste Determinations

In addition to the exclusions discussed above, the Agency is also finalizing a process for obtaining a case-specific non-waste determination for certain hazardous secondary materials that are recycled. This process allows a petitioner to receive a formal determination from EPA (or the state, if the state is authorized for this provision) that its hazardous secondary material is not discarded and therefore is not a solid waste. The procedure allows EPA or the authorized state to take into account the particular fact pattern of the reclamation operation to determine that the hazardous secondary material in question is not a solid waste.

The determination is available to applicants who demonstrate (1) that their hazardous secondary materials are reclaimed in a continuous industrial process, or (2) that the materials are indistinguishable in all relevant aspects from a product or intermediate.

As discussed earlier, court decisions have made it clear that hazardous secondary materials reclaimed in a continuous industrial process are not discarded and, therefore, are not solid waste. As discussed in the March 2007 supplemental proposal, EPA believes that the generator-controlled exclusion also excludes from the definition of solid waste hazardous secondary materials recycled in a continuous industrial process (72 FR 14202). In effect, hazardous secondary materials reclaimed in a continuous process are a subset of the hazardous secondary materials reclaimed under the control of the generator that are excluded under today's rule.

However, EPA also recognized in the March 2007 supplemental proposal that production processes can vary widely from industry to industry. Thus, in some cases, EPA may need to evaluate case-specific fact patterns to determine whether an individual hazardous secondary material is reclaimed in a continuous industrial process, and therefore not a solid waste.[3] EPA continues to believe that this is best done through a case-by-case procedure and is, therefore, finalizing the non-waste determination process today.

In addition to ruling that hazardous secondary materials recycled within a continuous industrial process are not discarded and therefore not solid waste, the courts have also said that hazardous secondary materials destined for recycling in another industry are not automatically discarded. In the *Safe Food* decision, the Court stated, "[n]obody questions that virgin * * * feedstocks are products rather than wastes. Once one accepts that premise, it seems eminently reasonable to treat [recycled] materials that are indistinguishable in the relevant respects as products as well" (350 F.3d at 1269). In *Safe Food*, the court accepted EPA's determination that the "relevant respects" were that "market participants treat the * * * materials more like valuable products rather than like negatively-valued wastes managing them in ways inconsistent with discard, and that the fertilizers derived from these recycled feedstocks are chemically indistinguishable from analogous commercial products made from virgin materials." *Id.* As a result, EPA recognized in the March 2007 supplemental proposal, and continues to believe today, that there may be some instances that would benefit from a non-waste determination (72 FR 14203). Thus, we are also finalizing the non-waste determination process for hazardous secondary materials indistinguishable in all relevant aspects from a product or intermediate.

VI. When Will the Final Rules Become Effective?

This final rule is effective on December 29, 2008. Section 3010(b) of RCRA allows EPA to promulgate a rule with a period for the effective date shorter than six months where the Administrator finds that the regulated community does not need additional time to come into compliance with the rule. This rule does not impose any requirements on the regulated

[3] *See*, for example the ABR decision, where the Court acknowledged that the term "discard" could be "ambiguous as applied to some situations, but not as applied to others," and particularly cited the difficulty in examining the details of the many processes in the mineral processing industry (208 F.3d at 1056). While the court overturned EPA's regulations for casting too wide a net over continuous industrial processes, it acknowledged that there are a large number of processes, some of which may be continuous and some of which may not. Determining what is a continuous process in the mineral processing industry, according to the Court, would require examination of the details of the processes and does not lend itself, well, to broad abstraction. Specifically, the Court stated, "Some mineral processing secondary materials covered under the Phase IV Rule may not proceed directly to an ongoing recycling process and may be analogous to the sludge in AMC II. The parties have presented this aspect of the case in broad abstraction, providing little detail about the many processes throughout the industry that generate residual material of the sort EPA is attempting to regulate under RCRA, * * *" 208 F.3d at 1056.

In the case of today's final rule, which applies across industries, there are far larger and more diverse processes. While EPA believes it is establishing a reasonable set of principles, they must still be applied to the details of the industrial processes in question.

community; rather, the rule provides flexibility in the regulations with which the regulatory community is required to comply. The Agency finds that the regulatory community does not need six months to come into compliance.

VII. Exclusion for Hazardous Secondary Materials That Are Legitimately Reclaimed Under the Control of the Generator

A. What Is the Purpose of This Exclusion?

Sections 261.2(a)(2)(ii) and 261.4(a)(23), being finalized today, excludes from the definition of solid waste those hazardous secondary materials which remain under the control of the generator when legitimately reclaimed. By maintaining control over, and potential liability for, the hazardous secondary materials and the reclamation process, the generator ensures that such materials have not been discarded. When reclaimed under the control of the generator, the hazardous secondary materials are being treated as a valuable commodity rather than a waste. However, if such hazardous secondary materials are released into the environment and are not recovered immediately, they have been discarded and the generator is subject to all applicable federal and state regulations, as well as applicable cleanup authorities.

B. Scope and Applicability

EPA is today excluding from the definition of solid waste those hazardous secondary materials that are legitimately reclaimed under the control of the generator, provided they are not speculatively accumulated and they are reclaimed within the United States or its territories. In addition, the generator must submit a notification of the exclusion to EPA or the authorized state and the hazardous secondary material must be contained in the units in which it is stored. The provision excluding hazardous secondary materials that are under the control of the generator and that are managed in land-based units is found at 40 CFR 261.4(a)(23), while the provision excluding such materials that are managed in non-land-based units is found at 40 CFR 261.2(a)(2)(ii). A land-based unit is defined in 40 CFR 260.10 as an area where hazardous secondary materials are placed in or on the land before recycling, but this definition does not include land-based production units. Examples of land-based units include surface impoundments and piles.

The definition of "hazardous secondary material generated and reclaimed under the control of the generator" is finalized in 40 CFR 260.10 and consists of three parts. The first part applies to hazardous secondary materials generated and legitimately reclaimed at the generating facility. For purposes of this exclusion, "generating facility" means all contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator, and "hazardous secondary material generator" means any person whose act or process produces hazardous secondary materials at the generating facility. A facility that collects hazardous secondary materials from other persons (for example, when mercury-containing equipment is collected through a special collection program) is not the hazardous secondary material generator of those materials.

Under this definition, if a generator contracts with a different company to reclaim hazardous secondary materials at the generator's facility, either temporarily or permanently, the materials would be considered under the control of the generator. However, generators sometimes contract with a second company to collect hazardous secondary materials at the generating facility and the materials are subsequently reclaimed at the facility of the second company. In that situation, the hazardous secondary materials would no longer be considered "under the control of the generator" and would instead be managed under the exclusion for materials transferred for reclamation.

The second part of the definition applies to hazardous secondary materials generated and legitimately reclaimed at different facilities if the reclaiming facility is controlled by the generator or if a person as defined in § 260.10 controls both the generator and the reclaimer. For purposes of this exclusion, "control" means the power to direct the policies of the facility, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate facilities on behalf of a different person as defined in § 260.10 shall not be deemed to "control" such facilities. Thus, when a contractor operates two facilities, each of which is owned by a different company, hazardous secondary materials generated at the first facility and reclaimed at the second facility are not considered "under the control of the generator" and must use the exclusion for such materials that are transferred for reclamation.

Under the definition promulgated in today's final rule, the generating facility must provide one of two certifications: (1) That the generating facility will send the indicated hazardous secondary materials to the reclaiming facility, which is controlled by the generating facility, and that either the generating facility or the reclaiming facility has acknowledged full responsibility for the safe management of such hazardous secondary materials; or (2) that the generating facility will send the hazardous secondary materials to the reclaiming facility, that both facilities are under common control, and that either the generating facility or the reclaiming facility has acknowledged full responsibility for the safe management of such hazardous secondary materials. This certification should be made by an official familiar with the corporate structure of both the generating and the reclaiming facilities. The certification should be retained at the site of the generating facility.

The third part of the definition applies to hazardous secondary materials that are generated pursuant to a written contract between a tolling contractor and a toll manufacturer and legitimately reclaimed by the tolling contractor. For purposes of this exclusion, a tolling contractor is a person who arranges for the production of a product or intermediate made from specified unused materials through a written contract with a toll manufacturer. The toll manufacturer is the person who produces a product or intermediate made from specified unused materials pursuant to a written contract with a tolling contractor. Under today's final rule, the tolling contractor must certify that it has a written contract with the toll manufacturer to manufacture a product or intermediate made from specified unused materials, and that the tolling contractor will reclaim the hazardous secondary materials generated during the manufacture of the product or intermediate. The tolling contractor must also certify that it retains ownership of, and liability for, the hazardous secondary materials that are generated during the course of the manufacture, including any releases of hazardous secondary materials that occur during the manufacturing process at the toll manufacturer's facility. This certification should be made by an official familiar with the terms of the written contract and should be retained at the site of the tolling contractor.

C. Restrictions and Requirements

Hazardous secondary materials must be contained. The regulations at 40 CFR 261.2(a)(2)(ii) and 40 CFR 261.4(a)(23) apply to hazardous secondary materials that are generated and legitimately reclaimed under the control of the generator in the United States or its

territories. Under these provisions, the hazardous secondary materials must be contained, whether they are stored in land-based units or non-land-based units. Generally, such material is "contained" if it is placed in a unit that controls the movement of the hazardous secondary material out of the unit and into the environment. These restrictions support EPA's determination that materials managed in this manner are not discarded.

In the event of a release from a unit to the environment, the hazardous secondary materials that remain in the unit may or may not meet the terms of the exclusion. They would be considered solid wastes if they are not managed as a valuable raw material, intermediate, or product, and as a result, a "significant" release of hazardous secondary materials from the unit to the environment were to take place and the materials were not immediately recovered. If such a significant release were to occur, the hazardous secondary materials remaining in the unit would be considered solid and hazardous wastes and the unit would be subject to the appropriate hazardous waste regulations. For example, an acidic hazardous secondary material undergoing reclamation could be stored in a tank that experienced a failure. A facility might fail to monitor the structural integrity of the tank, as most product tanks are monitored, or the tank might not be constructed to contain acidic hazardous secondary materials, causing a significant release of such materials into the environment that is not immediately recovered. The unit itself would consequently be considered a hazardous waste management unit because the hazardous secondary materials were not being managed as a valuable raw material, intermediate, or product, as evidenced by the failure to monitor it for structural integrity, resulting in the release. Thus, the unit and any remaining waste would be subject to Subtitle C controls because the hazardous secondary materials in the unit have been discarded. In addition, any of the released materials that were not immediately recovered would also be considered discarded and, if hazardous, subject to appropriate federal or state regulations and applicable authorities. Thus, to be excluded from the definition of solid waste, the facility has an obligation to manage the material as it would any raw material, intermediate or product because of its value. This includes, for example, operating and maintaining storage units in the same manner as product units. In the above example, whether by mismanagement of the hazardous secondary materials or by storing acidic materials in a tank not constructed to handle them or because of the failure to monitor the structural integrity of the unit, the result is that the unit would come under Subtitle C regulation.

Conversely, a tank or a surface impoundment in good condition may experience small releases resulting from normal operations of the facility. Sometimes a material may escape from primary containment and may be captured by secondary containment or some other mechanism that would prevent the material from being released to the environment or would allow immediate recovery of the material. In that case, the unit would retain its exclusion from RCRA hazardous waste regulation and the hazardous secondary materials in the unit would still be excluded from the definition of solid waste, even though any such materials that had been released would be considered discarded if not immediately recovered and would be subject to appropriate regulation. One specific example of "contained" hazardous secondary materials would be furnace bricks collected from production units and stored on the ground in walled bins before being used as feedstocks in the metals production process. If there were very small releases from the walled bins due to precipitation runoff, such releases would not cause the storage bins to be subject to Subtitle C controls.

It should be noted that a "significant" release is not necessarily large in volume. Such a release could include an unaddressed small release to the environment from a unit that, if allowed to continue over time, could cause significant damage. Any one release may not be significant in terms of volume. However, if the cause of such a release remains unaddressed over time and hazardous secondary materials are managed in such a way that the release is likely to continue, the materials in the unit would not be contained. For example, a rusting tank or containers that are deteriorating may have a slow leak that, if unaddressed, could, over time, cause a significant environmental impact. Similarly, a surface impoundment with a slow, unaddressed leak to groundwater could result, over time, in significant damage. Another example would be a large pile of lead-contaminated finely ground dust without any provisions to prevent wind dispersal of the dust. Such releases, if unaddressed over time and likely to continue, would mean that the hazardous secondary materials remaining in the unit were not being managed as a valuable raw material, intermediate, or product and that the materials had been discarded. As a result, the hazardous secondary materials in the unit would be hazardous wastes and these units would be subject to the RCRA hazardous waste regulations.

Speculative accumulation. In addition to the containment provision, hazardous secondary materials that are generated and legitimately reclaimed under the control of the generator are subject to the speculative accumulation provisions of 40 CFR 261.1(c)(8). If these materials are speculatively accumulated, they are considered discarded. EPA did not propose changes to the speculative accumulation provisions in its March 26, 2007 proposal.

Legitimate Recycling. Under this exclusion, hazardous secondary materials under the control of the generator must be legitimately reclaimed, as specified under 40 CFR 260.43. Legitimate recycling must involve a hazardous secondary material that provides a useful contribution to the recycling process or product and the recycling process must produce a valuable product or intermediate. In addition, as part of a legitimacy determination, persons must consider whether the hazardous secondary material is managed as a valuable product and must consider the levels of toxics in the product of the recycling process as compared to analogous products made from virgin materials. The details of the legitimacy provision are discussed in section IX of this preamble.

Notification. Under today's rule, hazardous secondary material generators, tolling contractors, toll manufacturers, and reclaimers (where the generator and reclaimer are part of the same company, but located at different facilities) managing hazardous secondary materials reclaimed under the control of the generator are required to submit a notification prior to operating under this exclusion and by March 1 of each even numbered year thereafter to the EPA Regional Administrator using EPA Form 8700–12. In states authorized by EPA to administer the RCRA Subtitle C hazardous waste program, notifications may be sent to the state Director. The notice must include:

- The name, address and EPA ID number (if applicable) of the facility;
- The name and telephone number of a contact person;
- The NAICS code of the facility;
- The exclusion under which the hazardous secondary materials will be managed (e.g., 40 CFR 261.2(a)(2(ii)

and/or 40 CFR 261.4(a)(23) for hazardous secondary materials managed in a land-based unit);

- When the facility expects to begin managing the hazardous secondary materials in accordance with the exclusion;
- A list of hazardous secondary materials that will be managed according to the exclusion (reported as the EPA hazardous waste numbers that would apply if the hazardous secondary materials were managed as hazardous waste);
- For each hazardous secondary material, whether the material, or any portion thereof, will be managed in a land-based unit;
- The quantity of each hazardous secondary material to be managed annually; and
- The certification (included in EPA Form 8700–12) signed and dated by an authorized representative of the facility.

Generators and reclaimers are required to notify on a per facility basis. In other words, facilities managing hazardous secondary materials will need to submit a notification form in accordance with the exclusion. One notification cannot cover two or more facilities. Furthermore, each facility need only use one notification form to list all of the hazardous secondary materials to be managed under the exclusion (i.e., facilities need not file separate notifications for each hazardous secondary material).

We are also requiring facilities that stop managing hazardous secondary materials in accordance with the exclusion to notify the Regional Administrator within 30 days using the same EPA Form 8700–12. Notification in this instance serves two objectives: (1) It allows states to follow up with the facility to verify that the hazardous secondary material has not been discarded; and (2) it maintains the usability of the database to enable states to monitor compliance and, for today's transfer-based exclusion, to assist generators with performing reasonable efforts on potential reclaimers. We consider a facility to have 'stopped' managing hazardous secondary materials when a facility no longer generates, manages and/or reclaims hazardous secondary materials under the exclusion and does not expect to manage any amount of hazardous secondary material under the exclusion for at least one year. This includes if the facility chooses to manage the hazardous secondary materials as hazardous waste or the facility chooses to temporarily suspend management of hazardous secondary materials and does not expect to manage any amount of hazardous secondary materials for at least one year. For example, a facility that has previously notified it is managing hazardous secondary materials under the exclusion, but then subsequently chooses to stop managing all hazardous secondary materials for a period of at least one year, must notify the Regional Administrator. However, if this same facility only stopped managing one type of hazardous secondary material (but continued to manage another type of hazardous secondary material under the exclusion) it would not need to notify, and could just update its list of hazardous secondary materials during the next periodic re-notification submitted every two years. Additionally, if a reclaimer or intermediate facility managing hazardous secondary materials under the transfer-based exclusion requests release of financial assurance under 40 CFR 261.143(h), it is clear the facility has 'stopped' managing hazardous secondary materials, and, therefore, must notify the Regional Administrator (for additional clarification, notification does not 'trigger' the process for releasing financial assurance; instead, a facility wishing to be released from financial assurance obligations must notify it has 'stopped' managing hazardous secondary materials). Of course, a facility could certainly choose to begin managing hazardous secondary materials again and would simply have to submit a notification in compliance with 40 CFR 260.42.

We note that the requirement to provide this notification is not a condition of the exclusion. Thus, failure to comply with the requirement constitutes a violation of RCRA, but does not affect the excluded status of the hazardous secondary materials.

We believe our authority to request such information is inherent in our authority to determine whether a material is discarded, and we consider this to be the minimum information needed to enable credible evaluation of the status of hazardous secondary materials under section 3007 of RCRA and to ensure that the terms of the exclusions are being met by generators and reclaimers. EPA further believes that RCRA section 3007 allows us to gather information about any material when we have reason to believe that it may be a solid waste and possibly a hazardous waste within the meaning of RCRA section 1004(5). Section 2002 also gives EPA authority to issue regulations necessary to carry out the purposes of RCRA.

We also note that after EPA promulgates regulations listing a material as a hazardous waste or identifying it by its characteristics, section 3010 of RCRA requires generators of such materials to submit a notification to EPA within 90 days. Since the changes finalized today could substantially affect the universe of facilities in the Subtitle C system, we believe the notifications are appropriate.

The intent of this notification requirement is to provide basic information to the regulatory agencies about who will be managing hazardous secondary materials under the exclusion. The specific information included in today's notification requirement will enable regulatory agencies to monitor compliance adequately and to ensure hazardous secondary materials are managed according to the exclusion and not discarded. For example, in the notification, EPA requires facilities to include the quantity of hazardous secondary materials that will be managed according to the exclusion and whether certain types of hazardous secondary materials will be managed in land-based units. This information can be used to assist RCRA inspectors in determining which facilities may warrant greater oversight and provides a basis for setting enforcement priorities. Furthermore, requiring facilities to notify when they have stopped managing hazardous secondary materials allows states to follow-up and ensure that hazardous secondary materials were not discarded. Notification information is collected in EPA's RCRAInfo database, which is the national repository of all RCRA Subtitle C site identification information, whether collected by a state authority or EPA. EPA provides public access to this information through EPA's public Web site at *http://www.epa.gov/enviro/html/rcris/* (or other successor Web site).

This notification requirement is the same as the notification requirement for today's transfer-based exclusion found in section VIII.C. of today's preamble. *Sending to an intermediate facility.* We note that under this exclusion, hazardous secondary materials may not be sent to an intermediate facility as defined in 40 CFR 260.10 (i.e., a facility, other than a generator or reclaimer, that stores hazardous secondary materials for more than 10 days). If hazardous secondary materials are sent to intermediate facilities, they would not meet the definition of hazardous secondary materials reclaimed under the control of the generator, and they are subject to the conditions of the transfer-based exclusion, discussed below.

D. Terminating the Exclusion

Units managing excluded hazardous secondary materials are not subject to the closure regulations in 40 CFR parts 264 and 265 subpart G. However, when the use of these units is ultimately discontinued, all owners and operators must manage any remaining hazardous secondary materials that are not reclaimed and remove or decontaminate all hazardous residues and contaminated containment system components, equipment structures, and soils. These hazardous secondary materials and residues, if no longer intended for reclamation, would also no longer be eligible for the exclusion (which only applies to materials that will be reclaimed). Failure to remove these materials within a reasonable time frame after operations cease could cause the facility to become subject to the full Subtitle C requirements if the Agency determines that recycling is no longer feasible. While this final rule does not set a specific time frame for these activities, the Agency believes that they typically should be completed within the time frames established for analogous activities. For example, the requirements for product tanks under 40 CFR 261.4(c) allow 90 days for removal of hazardous material after the unit ceases to be operated for manufacturing. This time frame should serve as a guideline for regulators in determining on a case-by-case basis whether owners and operators have completed these activities within a reasonable time frame. In any event, these hazardous secondary materials remain subject to the speculative accumulation restrictions in 40 CFR 261.1(a)(8), which includes both a time limitation and a requirement that the facility be able to show there is a feasible means of recycling the hazardous secondary material.

E. Enforcement

Under today's rule, hazardous secondary materials generated and legitimately reclaimed within the United States under the control of the generator are excluded from RCRA Subtitle C regulation, but are subject to certain restrictions, principally speculative accumulation, legitimate recycling, and containment. Persons that handle these hazardous secondary materials are responsible for maintaining the exclusion by ensuring that these restrictions are met. If the hazardous secondary materials are not managed pursuant to these restrictions, they are not excluded. They would then be considered solid and hazardous wastes if they were listed or they exhibited a hazardous waste characteristic for Subtitle C purposes from their point of generation. Persons operating under the exclusion are also required to notify EPA or the authorized state.

Persons taking advantage of today's exclusion that fail to meet the requirements may be subject to an enforcement action. EPA could choose to bring an enforcement action under RCRA section 3008(a) for violations of the hazardous waste requirements occurring from the time the hazardous secondary materials are generated through the time they are ultimately disposed of or reclaimed. The Agency affirms in this preamble that § 261.2(f) applies to claims that hazardous secondary materials are not solid waste because they are being legitimately recycled. Respondents in enforcement cases should be prepared to demonstrate that they meet the terms of the exclusion or exemption, which includes demonstrating that the recycling is legitimate. Appropriate documentation must be provided to the enforcing agency to demonstrate that the material is not a solid waste or is exempt from regulation. In addition, the recycler of the hazardous secondary materials should be prepared to show they have the necessary equipment to perform the recycling operation. Furthermore, any release of the hazardous secondary materials to the environment that is not immediately cleaned up would be considered discarded and, thus, the hazardous secondary materials that were released would be a solid waste and potentially subject to the RCRA hazardous waste regulations.

The Agency believes that this approach provides hazardous secondary material generators with an incentive to handle or (in the case of tolling) to ensure that their contractors handle the hazardous secondary materials pursuant to the requirements. It also encourages each hazardous secondary material generator to take appropriate steps to ensure that such materials are properly handled and legitimately reclaimed by others in the management chain. If there is a release of the hazardous secondary materials into the environment, they are considered discarded and subject to all applicable hazardous waste regulations and cleanup authorities.

VIII. Exclusion for Hazardous Secondary Materials That Are Transferred for the Purpose of Legitimate Reclamation

Today, EPA is also finalizing an exclusion from the definition of solid waste for hazardous secondary materials that are generated and subsequently transferred to another company or person for the purpose of reclamation (i.e., "transfer-based exclusion"), provided that certain conditions are met. Reclamation that conforms to these conditions would not involve discard, and therefore the hazardous secondary materials would not be regulated as solid waste. As with all recycling-related exclusions and exemptions, such excluded hazardous secondary materials would also need to be recycled legitimately. For further discussion on how the transfer-based exclusion relates to the concept of discard, see section V.B. of this preamble.

The conditions that must be met for this exclusion are based on our analysis of how successful third-party recycling currently operates (and, conversely, how unsuccessful third-party recycling practices can result in recyclable hazardous secondary materials being discarded), and are supported by the information contained in the rulemaking record, including the recycling studies found in the public docket for today's rulemaking and discussed previously in section III.D. of today's preamble and in the preamble to the March 2007 supplemental proposal at 72 FR 14178–14183. For example, the successful recycling study indicates that many responsible generators examine the recycler's technical capabilities, business viability, environmental track record, and other relevant questions before sending hazardous secondary materials for recycling. Currently, these recycler audits, which can be thought of as a form of environmental "due diligence," are in essence a precaution to minimize the prospect of incurring CERCLA liability in the event that the recycling, or lack thereof, results in the release of material to the environment. The fact that these companies are willing to incur the expense of auditing recyclers as a business practice is of itself a marketplace affirmation that sending hazardous secondary materials to other companies for recycling involves some degree of risk. Although these risks may be small when the recycler is a well-established, successful enterprise with a good record of environmental stewardship, it also is apparent that not all recyclers fit this profile, as evidenced in the study of environmental problems associated with hazardous secondary materials recycling. Thus, we believe that there is sufficient basis for the Agency to place certain conditions on this exclusion for the generator to determine that the hazardous secondary material is not discarded, particularly since we expect that this rulemaking could encourage

some companies that are currently not involved with hazardous secondary materials recycling to enter the business.

A. What Is the Purpose of This Exclusion?

In finalizing this conditional exclusion, EPA's objectives are to encourage the reclamation of hazardous secondary materials and reduce unnecessary regulatory compliance costs to industry, while still maintaining protection of human health and the environment. After considering the entire rulemaking record, including comments submitted by the public, we continue to believe that this exclusion is a workable, common-sense approach to meeting these objectives; is well supported by the record for this rulemaking, including the recycling studies that EPA has conducted; and, in important ways, reflects current good industry practices that are used by responsible generators for recycling hazardous secondary materials.

B. Scope and Applicability

The conditional exclusion for the transfer-based approach applies to hazardous secondary materials that are currently regulated as hazardous wastes because their recycling involves reclamation—specifically, spent materials, listed sludges, and listed by-products. It would not be available for hazardous secondary materials that are regulated as hazardous wastes for other reasons, such as "inherently waste-like materials," materials that are "used in a manner constituting disposal," or "materials burned for energy recovery." The conditional exclusion also does not apply to materials that are currently excluded from the definition of solid waste according to other, existing provisions of 40 CFR part 261. For example, the exclusion for broken cathode ray tubes requires them to be transported in closed containers per 40 CFR 261.4(a)(22). Today's exclusion does not supersede or otherwise affect these other exclusions, and such hazardous secondary materials will need to be managed in accordance with those existing exclusions. For a discussion of how this exclusion relates to particular existing exclusions and additional details involving these exclusions, see section XI of today's preamble.

This exclusion is available to hazardous secondary material generators, transporters, intermediate facilities, or reclaimers. In the March 2007 supplemental proposal, EPA proposed that the hazardous secondary material must be transferred directly from the generator to the reclaimer and not be handled by anyone else other than a transporter. Thus, as proposed, a generator that wished to maintain the excluded status of its hazardous secondary materials would not be able to ship those materials to a middleman, such as a broker. We said that we believed that a generator who ships materials to a middleman, such as a broker typically does not know who will ultimately manage and reclaim them, or how they will be reclaimed (72 FR 14189). However, we requested comment on allowing middlemen to participate in the exclusion.

Comments on the proposal disputed the assumption that the generator does not know the final destination when shipping to an intermediate facility, saying, that in certain cases, the generator works with an intermediate facility to choose the reclamation facility and the final destination is arranged by contract before the hazardous secondary materials are shipped. Commenters also asserted that such arrangements allow for consolidation of shipments, making recycling economical for small businesses who generate hazardous secondary materials.

EPA agrees with the comments that some types of intermediate facilities could participate in the exclusion, while still allowing the hazardous secondary material generator to perform reasonable efforts to ensure that the hazardous secondary material is properly and legitimately recycled. Thus, in the final rule, EPA has determined that intermediate facilities will be allowed under the transfer-based exclusion. However, to limit the exclusion to those intermediate facilities where discard will not occur, if the hazardous secondary material will be passing through an intermediate facility, the hazardous secondary material generator must make contractual arrangements with the intermediate facility to ensure that the hazardous secondary material is sent on to the reclamation facility or facilities identified by the generator and must perform reasonable efforts on the intermediate facility, as well as on the reclamation facility. Also, the intermediate facility must send the hazardous secondary material to the reclaimer(s) designated by the generator.

In addition, the intermediate facility must meet the same conditions as the reclamation facility for the same reasons the reclamation facility must meet them. Section VIII.C.4. below discusses additional details as to why these conditions need to apply to the reclamation facilities and this reasoning applies equally to intermediate facilities involved in the process. Of the 208 damage cases in the environmental problems study, 45 (22%) cases were from intermediate facilities. Therefore, EPA believes the record for requiring the conditions for the reclamation facility also supports promulgation of the same conditions for intermediate facilities.

In addition, in the March 2007 supplemental proposal, the Agency recognized that, in some cases, recycling of an excluded hazardous secondary material may involve more than one reclamation step. For example, a recyclable hazardous secondary material, such as an electroplating secondary material, might have a relatively high moisture content and a somewhat variable chemical composition. Such materials might need to be dried and blended to a suitable, consistent specification before they are amenable to a "final" reclamation process (e.g., metals smelting). In this example, the two different reclamation processes might be conducted by different companies and/or at different facilities. The Agency continues to see no reason to discourage this kind of recycling. The transfer-based exclusion finalized today is available for hazardous secondary materials that are recycled by means of one or more reclamation processes, including when they occur at more than one reclamation facility.

The conditions for generators and reclaimers under the terms of this exclusion would apply in the same way, regardless of how many reclamation steps were involved with recycling of an excluded material. For example, if the excluded hazardous secondary material was reclaimed by more than one facility or company, the generator of such material would need to make reasonable efforts to examine each facility or company involved in the reclamation process to ensure that the hazardous secondary materials would be properly and legitimately recycled. We believe that this is a consistent application of the idea of requiring "reasonable efforts" as a condition of this exclusion. Where recycling of a hazardous secondary material involves more than one reclamation step at more than one facility, generators should be well informed as to how the materials will be reclaimed, and by whom, throughout the recycling process. Additionally, each reclaimer (including 'partial reclaimers') managing hazardous secondary materials must meet all the reclaimer conditions listed under 40 CFR 261.4(a)(24), as well as the recordkeeping requirements.

C. Conditions and Requirements

1. Provisions Applicable to the Hazardous Secondary Materials Generator, the Reclamation Facility, and Any Intermediate Facility

Prohibition on speculative accumulation. As a condition of the transfer-based exclusion, hazardous secondary materials cannot be speculatively accumulated (40 CFR 261.1(c)(8)) at the hazardous secondary material generator, reclamation facility, or intermediate facility. Restrictions on speculative accumulation have been an important element of the RCRA hazardous waste recycling regulations since they were promulgated on January 4, 1985. According to this regulatory provision, hazardous secondary materials are accumulated speculatively if the person accumulating them cannot show that the material is potentially recyclable; further, the person accumulating the hazardous secondary material must show that during a calendar year (beginning January 1) the amount of such material that is recycled or transferred to a different site for recycling is at least 75% by weight or volume of the amount of the hazardous secondary material present at the beginning of the period. It is also the same prohibition that is being promulgated today for the generator-controlled exclusions.

Legitimate recycling. Under the transfer-based exclusion, hazardous secondary materials must be legitimately reclaimed, as specified under 40 CFR 260.43. Legitimate recycling must involve a hazardous secondary material that provides a useful contribution to the recycling process or product and the recycling process must produce a valuable product or intermediate. In addition, as part of a legitimacy determination, persons must consider whether the hazardous secondary material is managed as a valuable product and must consider the levels of toxics in the product of the recycling process as compared to analogous products made from virgin materials. The details of the legitimacy provision are discussed in section IX of this preamble.

Notification. Under today's transfer-based exclusion, hazardous secondary material generators, reclaimers, and intermediate facilities are required to send a notification prior to operating under this exclusion and by March 1 of each even numbered year thereafter to the EPA Regional Administrator using EPA Form 8700–12. In states authorized by EPA to administer the RCRA Subtitle C hazardous waste program, notifications may be sent to the state Director. The notice must include:

- The name, address, and EPA ID number (if applicable) of the facility;
- The name and telephone number of a contact person;
- The NAICS code of the facility;
- The exclusion under which the hazardous secondary materials will be managed (e.g., whether the hazardous secondary materials are managed under the transfer-based exclusion in 40 CFR 261.4(a)(24) and/or under the exclusion for hazardous secondary materials exported for reclamation in 40 CFR 261.4(a)(25));
- For reclaimers and intermediate facilities managing hazardous secondary materials, whether the reclaimer or intermediate facility has financial assurance for the management of such hazardous secondary materials (not applicable for hazardous secondary material generators);
- When the facility expects to begin managing the hazardous secondary materials in accordance with the exclusion;
- A list of hazardous secondary materials that will be managed according to the exclusion (reported as the EPA hazardous waste numbers that would apply if the hazardous secondary materials were managed as hazardous waste);
- For each hazardous secondary material, whether the material, or any portion thereof, will be managed in a land-based unit;
- The quantity of each hazardous secondary material to be managed annually; and
- The certification (included in EPA Form 8700–12) signed and dated by an authorized representative of the facility.

If a facility has submitted a notification, but then subsequently stops managing hazardous secondary materials in accordance with the exclusion, the facility must re-notify the Regional Administrator within 30 days using the same EPA Form 8700–12. We consider a facility to have 'stopped' managing hazardous secondary materials when a facility no longer generates, manages and/or reclaims hazardous secondary materials under the exclusion and does not expect to manage any amount of hazardous secondary material under the exclusion for at least one year. Of course, a facility could certainly choose to begin managing hazardous secondary materials again and would simply have to submit a notification in compliance with 40 CFR 260.42.

The requirement to provide this notification is not a condition of the exclusion. Thus, failure to comply with the requirement constitutes a violation of RCRA, but does not affect the excluded status of the hazardous secondary materials.

This notification requirement is the same as the notification requirement for the generator-controlled exclusion. For further discussion on the notification, including examples of when a facility must re-notify that it has stopped managing hazardous secondary materials, see section VII.C. of today's preamble.

Hazardous secondary materials must be contained. Another condition of the transfer-based exclusion applicable to hazardous secondary material generators, reclamation facilities, and intermediate facilities is that the hazardous secondary materials must be contained in their management units. Hazardous secondary materials released to the environment from any unit are discarded and would be subject to the hazardous waste regulations, unless they are immediately cleaned up. Hazardous secondary materials remaining in a unit that experiences a release may also be considered discarded in certain cases. This is the same as the restriction that is being promulgated for the generator-controlled exclusions. For further discussion on the containment provisions, including examples of how they might be applied in case-specific situations, see section VII.C. of today's preamble.

2. Provisions Applicable to the Hazardous Secondary Material Generator

Reasonable efforts. Today's final rule requires generators to make reasonable efforts to ensure that their hazardous secondary materials are properly and legitimately recycled before shipping or otherwise transferring them to a reclamation facility or any intermediate facility. As discussed previously, this condition effectively requires that generators perform a type of environmental "due diligence" on a reclaimer or any intermediate facility to ensure that those facilities intend to properly manage the hazardous secondary materials as commodities and legitimately recycle rather than discard them. We believe that this condition reflects the existing best practices of many responsible generators who audit and assess recyclers to maintain their commitment to sound environmental stewardship, minimize their potential regulatory and liability exposures, and make decisions about with whom they should do business.

Our successful recycling study quotes one large recycling and disposal vendor

as stating that with respect to its new customers, 60% of its large customers and 30%–50% of its smaller customers now perform audits on them. Under current practices, such audits can involve a site visit to the recycling facility and an examination of the company's finances, technical capability, environmental compliance record, and housekeeping practices. (**Note:** Audits that are currently conducted may or may not cover all of these areas.) Through the codification of this condition, we want to reinforce this best practice among all generators who use the transfer-based exclusion to send hazardous secondary materials to reclamation and intermediate facilities. We believe that this condition is critical for generators who currently may not evaluate reclaimers and intermediate facilities because this condition provides these generators with a framework for making reasonable efforts to ensure their hazardous secondary materials are properly managed and reclaimed, and not discarded.

Currently, under 40 CFR part 262, a generator must make a hazardous waste determination and, thus, already has an obligation to determine whether the waste is subject to regulation as a hazardous waste. EPA believes that to make a parallel determination under 40 CFR 261.4(a)(24) that hazardous secondary materials are not solid wastes because they are destined for reclamation and are not discarded, the generator must meet the reasonable efforts condition. A reasonable efforts inquiry by the hazardous secondary material generator ensures that the reclaimer intends to recycle the hazardous secondary material legitimately pursuant to 40 CFR 260.43 and not discard it, and that the reclaimer or any intermediate facility will manage the hazardous secondary materials in compliance with 40 CFR 261.4(a)(24)(vi).

The reasonable efforts condition for generators applies when hazardous secondary materials are transferred to intermediate facilities (as defined in 40 CFR 260.10) and reclamation facilities operating without a RCRA Part B permit or under the interim status standards that extend to management of the hazardous secondary materials in question. If the permit or interim status standards address the units being used to manage the hazardous secondary materials, we do not require generators to conduct reasonable efforts because we believe that a Part B permit or the interim status standards provide some assurance to generators that the facility has a measure of financial stability and that the hazardous secondary materials will be well managed. RCRA permitted or interim status facilities where the permit or interim status standards extend to the management of the hazardous secondary materials being reclaimed are already subject to stringent design and operating standards, must demonstrate financial assurance, and are subject to the corrective action requirements in the event of environmental problems. Not requiring reasonable efforts for generators that transfer hazardous secondary materials to these RCRA permitted or interim status recycling or intermediate facilities would likely be of particular benefit to relatively smaller volume generators who may not have the resources required to satisfy this condition.

Of course, if a permitted facility later modifies its permit terms in a way that the permit no longer extends to the management of the hazardous secondary materials, the generator would need to perform reasonable efforts in accordance with this exclusion. EPA recommends that any hazardous secondary material generator transferring hazardous secondary materials to a permitted facility request that it get placed on the facility mailing list, so they can then receive notice of changes to the permit status of the reclaimer or intermediate facility (*see* 40 CFR 270.42 and 40 CFR 124.10).

In contrast, if the permit or interim status standards do not extend to the hazardous secondary materials being reclaimed, the same level of assurance is not guaranteed. Therefore, if a reclamation or intermediate facility only has a RCRA permit or complies with the interim status standards for another on-site operation unrelated to the hazardous secondary materials of interest to the generator, then the hazardous secondary material generator is required to make a reasonable efforts inquiry of the facility as if it were a non-permitted facility.

EPA believes that a generator should be allowed to use any credible evidence available in making reasonable efforts, including information gathered by the generator, provided by the reclaimer or intermediate facility, and/or provided by a third party, in lieu of personally performing an assessment. For example, the hazardous secondary material generator might hire an independent auditor to review the operations, produce audit reports as a consortium of generators, or rely on an assessment of a recycler or intermediate facility by a parent corporation or trade association that is used by several generating facilities. In fact, EPA believes that many reputable third-party auditors, parent companies, and trade associations already assemble the types of information based on credible evidence that would be needed for a generator to satisfy the reasonable efforts condition. EPA would encourage this type of pooling of information to reduce the burden on generators and to take advantage of specialized technical expertise.

EPA is also finalizing in the regulatory text a series of questions, which together represent a minimum standard for reasonable efforts, to provide generators and overseeing agencies with regulatory certainty regarding fulfillment of the condition. We believe that these questions are objective and must be answered affirmatively. Hazardous secondary material generators wishing to take advantage of the exclusion must be able to answer all questions affirmatively to determine that their hazardous secondary materials are or will be properly and legitimately recycled and will not be discarded. The reasonable efforts questions are straight-forward by design and will allow generators to use a common sense approach in answering the questions and satisfy the condition. These questions can be found at 40 CFR 261.4(a)(24)(v)(B) and are discussed below.

Of course, a generator could choose to seek additional information or ask additional questions to determine that its hazardous secondary materials will not be discarded due to concerns about CERCLA liability. One example of additional information that many responsible generators currently seek from recyclers, but that EPA is not including in today's final rule, is information about a reclamation facility's financial health. Based on EPA's successful recycling study and comments on the proposed rule, we know that responsible generators often inquire about a reclamation facility's financial health. These inquiries can include reviews of liability insurance coverage, company annual reports, bankruptcy filings, investments in capital improvements, markets for recycled products, and business reports, such as Dun & Bradstreet reports. EPA believes that evaluating the financial health of a company can benefit a generator's reasonable efforts inquiry of a reclamation or intermediate facility and encourages generators to do so, although we acknowledge that it is not an activity that lends itself to an objective standard that would be appropriate for regulation. Instead, EPA is requiring that, under the transfer-based exclusion and reasonable efforts condition, reclamation and intermediate

facilities have financial assurance and generators affirm that facilities have notified the appropriate authorities that the financial assurance condition is satisfied.

EPA intends that if a hazardous secondary material generator has met the reasonable efforts condition prior to transferring hazardous secondary materials to the reclamation or intermediate facility, then the reclaimer or intermediate facility, not the generator, would be liable under RCRA if the materials were discarded (i.e., not properly and legitimately recycled). However, if the generator does not meet the reasonable efforts condition, then the generator is ineligible for the transfer-based exclusion and would be potentially liable in the event its hazardous secondary materials were discarded by a reclamation or intermediate facility. (*See* section VIII.E. for more information.) EPA acknowledges that meeting this condition will not affect CERCLA liability. (*See* section XIII for more information on CERCLA liability.)

The following five questions represent a minimum standard for satisfying the reasonable efforts condition:

(1) Does the available information indicate that the reclamation process is legitimate pursuant to § 260.43? In answering this question, the hazardous secondary material generator can rely on its existing knowledge of the physical and chemical properties of the hazardous secondary material, as well as information from other sources (e.g., the reclamation facility, audit reports, etc.) about the reclamation process. (By responding to this question, the hazardous secondary material generator has also satisfied its requirement in § 260.43(a) to be able to demonstrate that the recycling is legitimate.)

(2) Does the publicly available information indicate that the reclamation facility and any intermediate facility that is used by the hazardous secondary material generator have notified the appropriate authorities of hazardous secondary materials reclamation activities pursuant to 40 CFR 260.42 and have they notified the appropriate authorities that the financial assurance condition is satisfied per 40 CFR 261.4(a)(24)(vi)(F)? In answering these questions, the hazardous secondary material generator can rely on the available information documenting the reclamation facility's and any intermediate facility's compliance with the notification requirements per § 260.42, including the requirement in § 260.42(a)(5) to notify EPA whether the reclaimer or intermediate facility has financial assurance.

(3) Does publicly available information indicate that the reclamation facility or any intermediate facility that is used by the hazardous secondary material generator has not had any formal enforcement actions taken against the facility in the previous three years for violations of the RCRA hazardous waste regulations and has not been classified a significant noncomplier with RCRA Subtitle C? In answering this question, the hazardous secondary material generator can rely on the publicly available information from EPA or the state. If the reclamation facility or any intermediate facility that is used by the hazardous secondary material generator has had a formal enforcement action taken against the facility in the previous three years for violations of the RCRA hazardous waste regulations and has been classified as a significant non-complier with RCRA Subtitle C, does the hazardous secondary material generator have credible evidence that the facilities will manage the hazardous secondary materials properly? In answering this question, the hazardous secondary material generator can obtain additional information from EPA, the state, or the facility itself that the facility has addressed the violations, taken remedial steps to address the violations and prevent future violations, or that the violations are not relevant to the proper management of the hazardous secondary materials.

(4) Does the available information indicate that the reclamation facility and any intermediate facility that is used by the hazardous secondary material generator have the equipment and trained personnel to safely recycle the hazardous secondary material? In answering this question, the generator may rely on a description by the reclamation facility or by an independent third party of the equipment and trained personnel to be used to recycle the generator's hazardous secondary material.

(5) If residuals are generated from the reclamation of the excluded hazardous secondary materials, does the reclamation facility have the permits required (if any) to manage the residuals? If not, does the reclamation facility have a contract with an appropriately permitted facility to dispose of the residuals? If not, does the hazardous secondary material generator have credible evidence that the residuals will be managed in a manner that is protective of human health and the environment? In answering these questions, the hazardous secondary material generator can rely on publicly available information from EPA or the state, or information provided by the facility itself.

Question (1) focuses on whether the reclamation facility receiving hazardous secondary materials from a generator legitimately recycles such materials. EPA believes that any generator "regulated under § 260.34 or claiming to be excluded from the hazardous waste regulations under § 261.2(a)(2)(ii), § 261.4(a)(23), (24), or (25) because they are engaged in recycling, must be able to demonstrate that the recycling is legitimate" (40 CFR 260.43). Determining whether a recycling operation is legitimate is a fundamental basis for establishing that a generator's hazardous secondary materials will not be discarded after being transferred to a reclamation facility.

Since reclaimers must also be able to demonstrate that the recycling is legitimate under 40 CFR 260.43, EPA believes that generators can work with the owner or operator of the reclamation facility to verify that they have made a determination that the recycling is legitimate, which would answer question (1) for the purposes of satisfying the condition. We would expect that a reclaimer would be willing and able to adequately explain to the hazardous secondary material generator how the recycling activity satisfies the legitimacy requirements pursuant to 40 CFR 260.43, such that we would not expect that a generator would have to examine in detail the legitimacy factors. Of course, in order to answer question (1), a generator may also rely on its existing knowledge of the physical and chemical properties of the hazardous secondary material. Based on our discussions with the generating industry, we would expect that a hazardous secondary material generator that produces and manages a material that is more like an ingredient (i.e., a hazardous secondary material to be recycled) than a waste to be discarded would have a good understanding of the material's valuable components and useful contribution to a process. Since the generator manages the process that generates the hazardous secondary material, it would be knowledgeable about the makeup of the material and the value and usefulness of its components.

However, if questions or concerns remain regarding the legitimacy of the recycling activity, a generator could request additional information on how the definition of legitimacy is met. (*See* section IX of this rulemaking preamble for a discussion of determining legitimacy.)

Question (2) concentrates on whether the recycler or intermediate facility (to

the extent that the hazardous secondary material generator uses an intermediate facility) has met the following obligations under the exclusion before accepting hazardous secondary materials: Notification of the appropriate regulatory authorities that it plans to reclaim (or, in the case of the intermediate facility, properly store the hazardous secondary material) excluded hazardous secondary materials, and notification of the appropriate regulatory authorities that the facility has the necessary financial assurance to cover the costs of managing any hazardous secondary materials that remain if the facility closes. If a facility was found to have failed to meet the notification requirement and condition to have financial assurance, then it also would have failed to show a good faith effort towards demonstrating that it intends to recycle the hazardous secondary materials (or, in the case of the intermediate facility, properly store the hazardous secondary material) and not discard them.

For the purposes of reasonable efforts, generators will be able to determine that a facility has satisfied both the notification requirement and financial assurance condition if the reclamation or intermediate facility has submitted a notification. The notification form will include a section indicating the facility has satisfied the financial assurance condition. Generators may access the notification information, including the facility's notification that it has financial assurance, through EPA's public Web site at *http://www.epa.gov/enviro/html/rcris/* or other successor Web sites.

Question (3) focuses on the compliance history of the recycler or the intermediate facility (to the extent that the hazardous secondary material generator uses an intermediate facility). Although consideration of compliance data is an imperfect tool for determining whether a recycler would properly manage the hazardous secondary materials, we believe that publicly available compliance data are a reasonable starting point for evaluating a facility's environmental performance. Facility-specific enforcement data on compliance status, ongoing enforcement actions by both EPA and states, and specific case information for formal enforcement actions are readily available on EPA's public Web site at *http://www.epa.gov/echo.* "Formal enforcement" is a written document that mandates compliance and/or initiates a civil or administrative process, with or without appeal rights before a trier of fact that results in an enforceable agreement or order and an appropriate sanction. For EPA, formal enforcement action is a referral to the U.S. Department of Justice for the commencement of a civil action in the appropriate U.S. District Court, or the filing of an administrative complaint, or the issuance of an order, requiring compliance and a sanction. For states, formal enforcement action is a referral to the state's Attorney General for the commencement of a civil or administrative action in the appropriate forum, or the filing of an administrative complaint, or the issuance of an order, requiring compliance and a sanction. "Significant non-complier" is a defined term in EPA's *Hazardous Waste Civil Enforcement Response Policy* and means the violators have caused actual exposure or a substantial likelihood of exposure to hazardous waste or hazardous waste constituents; are chronic or recalcitrant violators; or deviate substantially from the terms of a permit, order, agreement, or from the RCRA statutory or regulatory requirements. In evaluating whether there has been actual or likely exposure to hazardous waste or hazardous waste constituents, EPA and the states consider both the environmental and human health concerns, including the potential exposure of workers to hazardous waste or hazardous waste constituents. For both terms, see EPA's *Hazardous Waste Civil Enforcement Response Policy (Dec. 2003)* at *http://www.epa.gov/compliance/resources/policies/civil/rcra/finalerp1203.pdf.*

We do not believe that evaluating this publicly available information, which a generator would likely already be familiar with based on its own regulated activities, is difficult for a generator, nor is interpreting the data and deriving conclusions about facilities, since the database specifically notes whether a facility is alleged to be a "significant non-complier" (i.e., identified as a "SNC" or in "significant non-compliance"). We also note that since many states already provide compliance information to EPA and the public through the EPA Web site, we do not believe that requiring hazardous secondary material generators to review such information would pose a significant new burden for state agencies.

While a facility designated as a significant non-complier and the subject of a formal enforcement action does not mean that the facility would not reclaim the hazardous secondary materials properly, it does raise questions that we believe the hazardous secondary material generator should investigate. That is, if any formal enforcement actions were taken against the facility in the previous three years for such non-compliance and the facility was alleged to be a significant non-complier, we would expect that the reclaimer would adequately explain to the hazardous secondary material generator how it has resolved any issues or how the reclamation facility will properly manage the hazardous secondary materials to avoid future violations and/or enforcement actions. Additionally, if the generator obtains reasonable information that the enforcement matters are unrelated to the facility's commitment to manage the hazardous secondary materials properly or that the violation has been corrected and the facility is back in compliance, then that would satisfy this aspect of the reasonable efforts determination. The generator also may wish to make a similar investigation of facilities designated as significant non-compliers by EPA or a state even if no formal enforcement action has been taken.

Question (4) concentrates on the technical capability of the recycler or intermediate facility, the most basic requirement for ensuring proper and legitimate recycling of hazardous secondary materials. If a reclamation or intermediate facility was found to have no equipment or inadequate equipment for storing the hazardous secondary material or was found to have personnel who have not been trained for reclaiming the hazardous secondary materials, it raises serious questions as to whether the facility would properly manage such materials and avoid discarding them to the environment.

In public comments on this question, which was included in the preamble to the proposed rule, commenters pointed out that a determination of what specific equipment and training would be appropriate to safely recycle hazardous secondary materials may be beyond the expertise of some generators. EPA agrees that, as drafted in the proposed rule, answering this question may require specialized knowledge and expertise. Accordingly, EPA is changing this question to allow the generator to rely on the reclamation facility to explain why its equipment and personnel are appropriate. Of course, the generator must have an objectively reasonable belief based on this information that the reclamation facility's equipment and trained personnel are adequate for safe recycling. Accordingly, if the equipment and personnel described by the reclamation facility would be, to an objective and reasonable person, clearly inadequate for safe recycling of the generator's hazardous secondary material, then the generator would not have met this condition. However, EPA

does not require or expect the generator to have specialized knowledge or expertise of the recycling process.

Of course, generators of hazardous secondary materials also are already familiar with equipment and personnel needed to manage their hazardous secondary materials properly at their own site. Therefore, a generator may also choose to answer question (4) using its existing knowledge of the physical and chemical properties of the hazardous secondary materials, technologies involved with managing and recycling such materials, and applicable regulations or industry standards based on the generator's experience producing and managing such materials.

Generators may also at their discretion use relevant third-party information sources to answer questions about a facility's equipment and personnel, including audit reports; information provided by industry or waste management associations related to the reclamation or intermediate facility; documents provided by the reclaimer or intermediate facility; and as noted in the successful recycling study, an evaluation by a qualified engineer.

Question (5) focuses on another major cause of environmental problems from recycling hazardous secondary materials: The management of residuals. This question relates to discard through the concept that a generator or reclaimer may actually be discarding hazardous secondary materials through the release of residuals from the recycling process. While the product made from recycling may be a legitimate product, the whole recycling process could be considered a discard activity if hazardous constituents from the recycled hazardous secondary materials are released to the environment. Roughly one-third of the damage cases documented in EPA's environmental problems study were caused by mismanagement of the residuals from recycling. Because the residuals from recycling can contain the hazardous constituents that originated with the hazardous secondary materials, it is important that the hazardous secondary material generator understands how a reclamation facility will manage any residuals generated.

Many generators of hazardous waste already understand and comply with the requirements for residuals management. Therefore, they may rely on their existing knowledge to answer question (5) and we do not anticipate that answering it will pose a significant challenge to them. We also anticipate that new generators will use the same resources that are publicly available to current hazardous secondary material generators for determining applicable regulatory requirements. In addition, a reclamation facility would likely assist the generator in understanding any requirements applicable to residuals management. For example, the reclamation facility could identify the types of residuals generated by the recycling process and explain to the generator how they are managed, whether any requirements apply, and how the requirements are met.

To answer question (5), a generator should determine that the reclamation facility has practices in place to ensure that residuals are managed in a manner that is protective of human health and the environment and according to applicable federal or state standards. For example, residuals may or may not be regulated hazardous wastes. If a residual is a hazardous waste, generators could access information about a facility's permit for managing the material on EPA's public Web site at *http://www.epa.gov/enviro/html/rcris* (or successor Web sites) or through a state Web site if such information is made publicly available. If a residual is a non-hazardous waste, a generator could access permit information from state agencies or a state Web site if available. A reclamation facility may also send its residuals to a waste management facility, in which case, a generator could ask about contracts with appropriately permitted disposal facilities. If a reclamation facility does not have permits for managing residuals or disposal contracts with permitted facilities, then the generator should determine that a reclamation facility has a system in place for managing residuals in a manner that is protective of human health and the environment.

Any inquiry into a reclamation facility's system for analyzing options for residuals management should acknowledge that various options do exist and that price fluctuations may be a determining factor for selecting an option.

In today's final rule, EPA is requiring that hazardous secondary material generators make reasonable efforts every three years, at a minimum, in order to ensure that the generators adequately manage their risk and are attune to changes at reclamation and intermediate facilities with which they are partners. We believe that this schedule reflects an average time frame for re-evaluating facilities, based on public comments, although we acknowledge that shorter time frames could be appropriate for certain industries, as suggested by some commenters. By specifying periodic updates for reasonable efforts every three years at a minimum, EPA in no way intends to limit a generator to conducting evaluations only every three years. In fact, EPA expects that any generator who has concerns about a reclamation or intermediate facility, or who gains new knowledge of significant changes or extraordinary situations at such facilities, would conduct reasonable efforts regardless of the required schedule. For example, if a hazardous secondary material generator conducted reasonable efforts in the first year it took advantage of the exclusion, prior to transferring materials to an intermediate facility, and then again conducted reasonable efforts in the second year upon learning about a significant change at the intermediate facility (such as bankruptcy), the hazardous secondary material generator would be required to update reasonable efforts three years later during the generator's fifth year of taking advantage of the exclusion.

EPA is requiring that generators maintain documentation showing that they satisfied the reasonable efforts condition under 40 CFR 261.4(a)(24)(v)(B) prior to transferring the hazardous secondary materials to the intermediate facility or the reclamation facility. Such records could include copies of audit reports and/or other relevant information that was used as the basis for affirmatively responding to inquiries about a reclamation or intermediate facility. Specifying that hazardous secondary material generators document these questions helps EPA and authorized states determine whether the generator made reasonable efforts to ensure that the hazardous secondary materials were not discarded. Documenting reasonable efforts is also beneficial for generators because EPA intends that if a generator has met the reasonable efforts condition prior to transferring the hazardous secondary materials to the reclamation or intermediate facility, then the reclaimer or intermediate facility, not the generator, would be liable under RCRA if the materials were discarded (*see* section VIII.E. for more information).

Generators are also required to certify for each reclamation and intermediate facility that reasonable efforts were made to ensure that hazardous secondary materials will be properly and legitimately recycled, and not discarded. This certification should be signed and dated by an authorized representative of the generating company prior to transferring the excluded hazardous secondary materials to a reclamation or intermediate facility under 40 CFR 261.4(a)(24). The

certification should also incorporate the certification language in 40 CFR 261.4(a)(24)(v)(C)(*2*). EPA believes that requiring a certification creates a necessary level of oversight from an authorized representative, who can be any appointed company representative, and who must affirm that the condition is met and that hazardous secondary materials will not be discarded.

Documentation and certification are both necessary requirements of the reasonable efforts condition. Documentation of questions (1)–(5) will support a hazardous secondary material generator's assertion that it affirmatively answered the questions and is in compliance with the regulations. It will also facilitate any review by regulatory authorities investigating whether the conditions of the transfer-based exclusion are satisfied and help delineate liability under RCRA if the materials were discarded. Having an authorized representative certify reasonable efforts is critical for guaranteeing accountability at the generator facility for meeting the condition and for ensuring that the act of making reasonable efforts is in fact genuine. The certification is also necessary in order to allow for the "flexible" documentation requirement that does not specify a particular format. Since individual generators may use any form of documentation, we believe it is critical for all generators to uniformly certify that the condition is satisfied. Furthermore, we find both reasonable efforts requirements (documentation and certification) to be appropriate based on our understanding that third-party auditors do not generally draw any conclusions based on their audits, but simply report the results to generators. While a generator may use any information for making reasonable efforts, the certification statement would affirm that a generator used information that is gathered and documented during the reasonable efforts inquiry, similar to how generators currently draw conclusions based on third-party audit documents.

The requirement for documentation and certification of reasonable efforts is not unlike existing forms of RCRA documentation that incorporate certifications, such as the RCRA Site ID Form, RCRA financial assurance requirements, and the Uniform Hazardous Waste Manifest.

Documentation of reasonable efforts and the certification statement must be maintained by the generator for a minimum of three years and it must be made available upon request by a regulatory authority within 72 hours, or within a longer period of time as specified by the regulatory authority. Requiring documentation will help EPA and authorized states to determine that hazardous secondary material generators have made reasonable efforts to ensure that hazardous secondary materials were reclaimed and not discarded. We understand that many generators may maintain this kind of documentation and certification at their company headquarters or at another off-site facility; therefore, we are not requiring that they be maintained on-site. However, we do believe that generators, having satisfied the reasonable efforts condition and certified reasonable efforts prior to transferring the hazardous secondary materials, should be able to produce the documentation and certification readily. Moreover, we understand that since generators today conduct business in an age of near-instantaneous communication, retrieving documentation from company headquarters or another off-site facility should be relatively easy. EPA also notes that time frames for producing documentation are generally determined by regulatory authorities on a case-by-case basis and time frames are clearly outlined by authorities within RCRA section 3007 information request letters.

Recordkeeping. In addition to documentation and certification of reasonable efforts (discussed above in section VIII.C.2.), EPA is requiring hazardous secondary material generators to maintain at the generating facility certain records that document off-site shipments (i.e., transfers) of hazardous secondary materials for a period of three years. Specifically, for each shipment of hazardous secondary material, the generator must maintain documentation of when the shipment occurred, who the transporter was, the name and address of the reclaimer(s) and, if applicable, each intermediate facility, and the type and quantity of the hazardous secondary materials in the shipment. This recordkeeping requirement may be fulfilled by ordinary business records, such as bills of lading.

In addition, hazardous secondary material generators are required to maintain confirmations of receipt from each reclaimer and intermediate facility for all off-site shipments of hazardous secondary materials in order to verify that the hazardous secondary materials reached their intended destination and were not discarded. These receipts must be maintained at the generating facility for a period of three years. Specifically, the hazardous secondary material generator must maintain documentation of receipt that includes the name and address of the reclaimer or intermediate facility, the type and quantity of hazardous secondary materials received, and the date which the hazardous secondary materials were received. The Agency is not requiring a specific template or format for confirmations of receipt and anticipates that routine business records (e.g., financial records, bills of lading, copies of Department of Transportation (DOT) shipping papers, electronic confirmations of receipt) would contain the appropriate information sufficient for meeting this requirement.

We recognize that, in some cases, reclamation of a hazardous secondary material may involve more than one reclamation step. In these cases, the recordkeeping conditions for generators and reclaimers under the terms of the exclusion applies for each reclaimer and intermediate facility, regardless of how many reclamation steps were involved. For example, if a hazardous secondary material generator transferred hazardous secondary materials to one reclaimer for partial reclamation and then arranged for the partially-reclaimed material to be subsequently transferred to another reclaimer for 'final' reclamation, the generator must maintain confirmations of receipt from each reclaimer involved in the reclamation process.

The Agency believes that the recordkeeping requirements in today's rule comprise the minimum information needed to enable effective oversight to ensure the hazardous secondary materials were transferred for reclamation and were not discarded.

3. Provisions Applicable to the Transportation of Hazardous Secondary Materials

Hazardous secondary materials may be stored for up to 10 days at a transfer facility and still be considered in transit. The 10-day storage standard for defining transfer facilities is the same as that used for hazardous waste transportation, and EPA has revised the definition of "transfer facility" at 40 CFR 260.10 to clarify that such facilities may store hazardous secondary materials, as well as hazardous waste. However, if the facility stores the hazardous secondary materials for more than 10 days, then it would be considered an intermediate facility and subject to the conditions in 40 CFR 261.4(a)(24)(vi). While at the transfer facility, the hazardous secondary materials must continue to meet all applicable DOT standards. Hazardous secondary materials may be consolidated for shipping, but cannot be intermingled in a way that would constitute waste management.

4. Provisions Applicable to the Reclamation Facility and Any Intermediate Facilities

Recordkeeping. Reclaimers and intermediate facilities who operate under the transfer-based exclusion must maintain certain records, similar to the records we are requiring for hazardous secondary material generators. Specifically, reclaimers and intermediate facilities must maintain at their facilities for a period of three years records of all shipments of hazardous secondary materials that were received at the facility and, if applicable, of all shipments of hazardous secondary materials sent off-site from the facility. For hazardous secondary materials received at the reclamation and intermediate facility, such records must document the name and address of the hazardous secondary material generator, the type and quantity of hazardous secondary materials received at the facility, any intermediate facilities that managed the hazardous secondary materials, the name of the transporter that brought the hazardous secondary materials to the facility, and the date such materials were received at the facility.

For hazardous secondary materials that, after being received by the reclaimer or intermediate facility, are subsequently transferred off-site for further reclamation, reclaimers and intermediate facilities must document the name and address of the hazardous secondary material generator, when the shipment occurred, who the transporter was, the name and address of the (subsequent) reclaimer and, if applicable, each (subsequent) intermediate facility, and the type and quantity of hazardous secondary materials in the shipment. This recordkeeping requirement may be fulfilled by ordinary business records, such as bills of lading.

Reclaimers and intermediate facilities must also send confirmations of receipt to the hazardous secondary material generator for all off-site shipments of hazardous secondary materials received at the facility in order to verify for the hazardous secondary material generator that their materials reached the intended destination and were not discarded. Specifically, the reclaimer (or each reclaimer, when more than one reclamation step is required) and, if applicable, each intermediate facility, must send documentation of receipt to the hazardous secondary material generator that includes the name and address of the reclaimer or intermediate facility, the type and quantity of the hazardous secondary materials received and the date which the hazardous secondary materials were received. The Agency is not requiring a specific template or format for confirmations of receipt and anticipates that routine business records (e.g., financial records, bills of lading, copies of DOT shipping papers, electronic confirmations of receipt) would contain the appropriate information sufficient for meeting this requirement.

In addition, reclaimers and intermediate facilities must also meet the recordkeeping requirements under financial assurance discussed below in this section.

Storage of Recyclable Hazardous Secondary Materials. In addition to the condition that the hazardous secondary materials must be contained (40 CFR 261.4(a)(24)(v)(A)), reclamation facilities and intermediate facilities must also manage the hazardous secondary materials in a manner that is at least as protective as that employed for the analogous raw material, where there is an analogous raw material. An "analogous raw material" is a material for which a hazardous secondary material substitutes and which serves the same function and has similar physical and chemical properties as the hazardous secondary material. A raw material that has significantly different physical or chemical properties would not be considered analogous even if it serves the same function. For example, a metal-bearing ore might serve the same function as a metal-bearing air pollution control dust, but because the physical properties of the dust would make it more susceptible to wind dispersal, the two would not be considered analogous. Similarly, hazardous secondary materials with high levels of toxic volatile chemicals would not be considered analogous to a raw material that does not have these volatile chemicals or that has only minimal levels of volatile chemicals.

Storage conditions for reclamation facilities and intermediate facilities that operate under today's exclusion will show that the materials are not discarded, but instead are treated as commodities which the handler considers valuable and would be used and not be lost to the environment. The great majority of damage cases documented in the environmental problems study occurred at commercial reclamation and intermediate storage facilities, and mismanagement of hazardous secondary materials was found to be a cause of environmental problems in 40% of the incidents. Accordingly, EPA believes that this condition for storage is necessary and appropriate for reclamation facilities and intermediate facilities that take advantage of this exclusion to show that storage of these materials is not just another way of disposing of them. In addition, it will establish an expectation for the owner/operators of such facilities that they must manage hazardous secondary materials in at least as protective a manner as they would an analogous raw material, and in such a way that materials would not be released into the environment.

Management of recycling residuals. Another condition of the transfer-based exclusion is that any residuals that are generated from the reclamation processes must be managed in a manner that is protective of human health and the environment. If any residuals exhibit a hazardous characteristic according to subpart C of 40 CFR part 261, or themselves are listed hazardous wastes, they are hazardous wastes (if discarded) and must be managed according to the applicable requirements of 40 CFR parts 260 through 273.

The purpose of this condition is to clarify the regulatory status of these waste materials and to emphasize in explicit terms that residuals that are generated from the reclamation of hazardous secondary materials must be managed properly so that the reclamation operation does not become another way of avoiding waste management and simply becomes another way of discarding unwanted material. The study of recent (i.e., post-CERCLA and post-RCRA) recycling-related environmental problems revealed that mismanagement of residuals was the cause of such problems in one-third of the incidents that were documented. Some common examples of these mismanaged residuals were acids and casings from the processing of lead-acid batteries, solvents and other liquids generated from cleaning drums at drum reconditioning facilities, and PCBs and other oils generated from disassembled transformers. In many of these damage incidents, the residuals were simply disposed of on-site with little regard for the environmental consequences of such mismanagement or possible CERCLA liabilities associated with cleanup of these releases. By making proper management of the recycling residuals a condition of the exclusion, EPA ensures that the reclamation operation is not just another way of discarding hazardous constituents. This has the added benefit of ensuring that the reclamation operation does not pose a significant risk to human health and the environment.

EPA notes that the "derived from" rule articulated in 40 CFR 261.3(c)(2) does not apply to residuals from the reclamation of hazardous secondary materials excluded under today's rule. These residuals are a new point of generation for the purposes of applying the hazardous waste determination requirements of 40 CFR 262.11. If the residuals exhibit a hazardous characteristic, or they themselves are a listed hazardous waste, they would be considered hazardous wastes (unless otherwise exempted) and would have to be managed accordingly. If they did not exhibit a hazardous characteristic, or were not themselves a listed hazardous waste, they would need to be managed in accordance with applicable state or federal requirements for non-hazardous wastes.

Financial Assurance

For the transfer-based exclusion, EPA proposed in its March 2007 supplemental proposal that reclamation facilities comply with the 40 CFR part 265 subpart H financial assurance requirements as a condition of the exclusion. As discussed in section V.B of this preamble, by obtaining financial assurance, the reclamation or intermediate facility is making a direct demonstration that it will not abandon the hazardous secondary materials, it will properly decontaminate equipment, and it will clean up any unacceptable releases, even if events beyond its control make its operations uneconomical. Moreover, financial assurance also addresses the issue of the correlation of the financial health of a reclamation or intermediate facility with the absence of discard. In essence, financial assurance will help demonstrate that the reclamation or intermediate facility owner/operators who would operate under the terms of this exclusion are financially sound and will not discard the hazardous secondary materials.

An implementation issue for the financial assurance condition stems from the fact that the 40 CFR part 265 subpart H financial assurance requirements directly reference and rely on the provisions of the 40 CFR part 265 subpart G closure requirements. For example, in 40 CFR part 265 subpart H, a facility owner uses the "closure plan" in 40 CFR part 265 subpart G to calculate closure cost estimates, which then set the amount of financial assurance required under subpart H. Similarly, the financial assurance requirements remain in place until EPA has reviewed the closure plan, and the facility has closed according to the plan. At that point, EPA releases the financial assurance instruments. Commenters expressed some confusion on this issue and requested that EPA clarify that the provisions of subpart G which are required to implement financial assurance be made explicit.

Thus, in today's final rule, for the convenience of the regulated community, EPA has detailed the applicable requirements in a separate regulation, subpart H of 40 CFR part 261, using terminology appropriate for excluded facilities, that specifically identifies the processes by which a facility determines the amount of financial assurance required and by which it secures release of financial assurance when it no longer wishes to operate under the transfer-based exclusion. The financial assurance requirements detailed in 40 CFR part 261 subpart H incorporate those aspects of the hazardous waste closure and financial assurance regulations as they apply to the financial assurance condition for excluded hazardous secondary material reclamation and intermediate facilities. However, since these facilities are not regulated hazardous waste facilities, new subpart H does not include a stand-alone closure requirement, although some aspects of the closure process (described below) are included as being necessary for the implementation of the financial assurance condition.

Substantively, these requirements generally mirror the interim status standards in 40 CFR part 265 for hazardous waste treatment, storage and disposal facilities (TSDFs), but have been tailored for hazardous secondary material reclamation and intermediate facilities. The provision in the new subpart H in 40 CFR part 261 are linked to equivalent provisions under 40 CFR part 265, which, as we noted in the March 2007 supplemental proposal, "outline how owners and operators should determine cost estimates, explain the acceptable mechanisms for providing financial assurance, and set the minimum amounts of liability coverage required" (*see* 72 FR 14196).

In addition to the closure requirements, 40 CFR part 265 subpart H includes requirements for post-closure care. Post-closure care (e.g., groundwater monitoring, maintenance of waste containment systems) only applies to land disposal units, where hazardous waste remains in the unit or other contamination is present after Subtitle C closure. However, the conditional exclusion being promulgated today only applies to hazardous secondary materials intended for reclamation. In no cases should the storage of these materials be designed or managed with the intent of leaving these hazardous secondary materials in place. Unlike the need for closure, which could occur at a reclamation or intermediate facility which meets all the conditions of the exclusion, but then becomes subject to forces beyond its control (such as a sudden downturn in the market for its recycled product), the need for post-closure care would only apply to a facility that does not meet the condition that the hazardous secondary materials are contained in the unit. Thus, the Agency has determined that the issue of post-closure care is most appropriately dealt with by enforcement of the condition that the hazardous secondary materials must be contained. If, during the life of the unit, there is a significant release that indicates that the hazardous secondary materials are discarded, and thus are wastes, then such waste is subject to the RCRA Subtitle C requirements, including the post-closure care requirements. See discussion of the condition that the hazardous secondary materials must be "contained" found in section VII.C.

Cost Estimate

Under subpart H of 40 CFR part 261, as it is under subpart H of 40 CFR part 265 for hazardous waste treatment storage and disposal facilities, the first step in obtaining financial assurance is to develop a detailed written estimate on the amount of financial assurance required. The cost estimate determines the amount of financial assurance that will be available to the state or EPA for a third party to close a facility if the owner or operator fails to do so. The requirements for a cost estimate in 40 CFR 261.142 generally tracks the procedures in 265.142 with changes to accommodate the absence of a closure plan. Because hazardous secondary materials that lose the exclusion may have to be disposed of as a hazardous waste and the facility may have to be closed as a hazardous waste facility in accordance with the requirements of 40 CFR part 265, the owner or operator must have a detailed written estimate in current dollars of performing this work. The detailed cost estimate should include all necessary information which will allow the state or EPA to assess whether the assumptions underlying the estimate are consistent with what could be required to close the facility. For example, do the estimates for disposal, including transportation charges, reflect the distance to available disposal facilities? What level of personal protective equipment is needed to protect workers? Is there sufficient sampling of equipment to determine that it has been decontaminated? Where

there is uncertainty about the scope of the work, is there a reasonable contingency factor included? While not required by this rule for developing a cost estimate, some owners or operators may find that developing a plan similar to the requirements in 40 CFR 265.112 would be beneficial for assessing the potential costs of closing the facility. (Note, however, that the cost estimate must reflect the costs of closure under the Subtitle C hazardous waste requirements, and any remaining hazardous secondary material must be managed as a hazardous waste, and therefore the procedures used as the basis of the cost estimate may differ from the actual procedures a compliant facility will carry out when it completes operations and exits from the exclusion.) The owner or operator can be required to provide the documentation of the cost estimate upon request.

The cost estimating requirements in 40 CFR 265.142 and 40 CFR 261.142 are designed so that if a state or EPA must close a facility because of an owner or operator's failure, there will be adequate funds to do so. The requirements for the cost estimate are therefore based upon the point when the extent and manner of the facility's operation would make these activities the most expensive.

The cost estimate must, at minimum, be based on the costs of hiring a third party or parties to conduct these activities. The cost estimate may not include any salvage value for the hazardous secondary materials as hazardous waste or non-hazardous waste and the owner or operator may not incorporate a zero cost for such materials that might have economic value.

The financial assurance provisions are intended, in part, to demonstrate that the owner and operator is not discarding the hazardous secondary materials. As noted earlier, 69 of the 208 incidents of environmental damage identified in EPA's environmental problems study involve abandonment of the hazardous secondary materials as the primary cause of damage. These cost estimate provisions, found in 40 CFR 261.142(a) are equivalent to those required to estimate financial assurance under 40 CFR 265.142(a).

In addition, the financial assurance cost estimate must be revised and additional financial assurance must be obtained to adjust annually for inflation or in the event that changes in the reclaimer's or intermediate facility's operations or unexpected events result in an increase in the cost of managing any hazardous secondary materials that are not reclaimed and the cost of removing or decontaminating all hazardous residues. These cost estimate provisions, found in 40 CFR 261.142(b) and 40 CFR 261.142(c) are equivalent to those required under 40 CFR 265.142(b) and 40 CFR 265.142(c), and incorporates language from 40 CFR 265.112(c)(2) requiring the owner or operator to amend the estimates at least 60 days prior to a planned change in facility design or operation or no later than 60 days after an unexpected event has occurred that affects cost estimates. The financial assurance cost estimate must be documented and this documentation maintained at the facility. This information must be furnished upon request, and made available at all reasonable times for inspection. The requirement in 40 CFR 261.142(d) to maintain documentation at the facility is from the requirement in 40 CFR 265.142(d) and 40 CFR 265.73(b)(7), and the responsibility to make it available upon request, which will allow Agency representatives to review the cost estimate, is from 40 CFR 265.74(a) which covers information required in 40 CFR 265.73.

Interaction of the Cost Estimate and the Financial Assurance Instruments

As with the interim status regulations in 40 CFR part 265 subpart H, the interaction of the cost estimating requirements in 40 CFR 261.142 and the instrument requirements in 40 CFR 261.143 result in adjustments in the amount of financial assurance as facility operations change. If changes in the reclaimer's or intermediate facility's operations result in a reduction in the cost estimate, the owner or operator may submit a new cost estimate. If the new cost estimate is less than the amount of financial assurance provided, the amount of the financial assurance instrument may be reduced to the amount of the new cost estimate following written approval by the Regional Administrator (*see*, for example, 40 CFR 261.143(b)(7)). For example, a facility with three units managing hazardous secondary materials that use a single surety bond could close one unit according to the plan in 40 CFR 261.143(h). With a new cost estimate submitted by the facility that reflects the lower costs for the two remaining units, the Regional Administrator can approve a reduction in the value of the surety bond. On the other hand, a change in the facility's operating plan or design that increases the cost of closing necessitates a new cost estimate (40 CFR 261.142(c)) and an increase in the amount of financial assurance (*see*, for example, 40 CFR 261.143(b)(7)).

Establishment of the Instrument, Plan for Removal of All Hazardous Secondary Material Residues, and Release From Financial Assurance

Under 40 CFR 261.4(a)(24)(vi)(F), an owner or operator of a reclamation or intermediate facility must establish financial assurance as a condition of the exclusions under 40 CFR 261.4(a)(24) and 261.4(a)(25). The same general types of instruments that are available for interim status facilities under 40 CFR part 265 subpart H are also available to owners or operators of reclamation or intermediate facilities. Owners or operators may use trust funds, payment surety bonds, letters of credit, insurance, or a financial test and corporate guarantee to demonstrate financial assurance.

The regulations governing the financial assurance instruments that an owner or operator must provide to qualify for the exclusions have been modified to reflect that they apply to hazardous secondary materials and not hazardous wastes. The financial assurance instruments for the trust fund, surety bond, letter of credit, and corporate guarantee have been revised so that EPA can direct the financial assurance funds at the point the hazardous secondary material reclamation or intermediate facility no longer meets the exclusion and, therefore, is managing a hazardous waste. As long as a facility is operating under the transfer-based exclusion so that the hazardous secondary material is not being discarded, there would be no need to invoke the financial assurance instruments.

The regulations allow the same flexibility as in 40 CFR part 265 subpart H for using a combination of trust funds, surety bonds, letters of credit and insurance at a single facility (*see* 40 CFR 261.143(f)), and allow the use of a single mechanism for multiple facilities (*see* 40 CFR 261.143(g)).

The provisions for releasing the reclamation or intermediate facility from the financial assurance requirements, found in 40 CFR 261.143(h), are functionally equivalent to those under 40 CFR 265.143(h). "Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that all hazardous secondary materials have been removed from the unit and the unit has been decontaminated in accordance with the approved plan per paragraph (i), the Regional Administrator will notify the owner or operator in writing that he is no longer required under § 261.4(a)(24)(vi)(F) to maintain financial assurance for that

unit, unless the Regional Administrator has reason to believe that that all hazardous secondary materials have not been removed from the unit or that the unit has not been decontaminated in accordance with the approved plan."

Under 40 CFR part 265 subpart H, the provisions for releasing financial assurance rely on receiving a certification that the unit was closed per the approved closure plan in 40 CFR 265.112. However, as noted earlier, under today's exclusion, units managing hazardous secondary materials are not subject to closure. Thus, the provision for releasing financial assurance for these units adapts language from the closure plan requirement found in 40 CFR 265.112 and from the certification requirement found in 40 CFR 265.115. Instead of a hazardous waste "closure plan," the 40 CFR 261.143(i) provisions for releasing financial assurance require submission of a plan for removing hazardous secondary materials and decontaminating the unit at least 180 days prior to the date that owner or operator expects to cease operating under the exclusion. The contents of the plan are detailed in 40 CFR 261.153(i)(2) and have been tailored to reflect the fact that, although the hazardous secondary material management units are not subject to closure, when reclamation operations or storage operations (in the case of an intermediate facility) ceases, the hazardous secondary materials must be removed or the unit would become subject to the Subtitle C hazardous waste requirements (see section VIII.D). Briefly, the plan must include, at least, (a) a description of how all excluded hazardous secondary materials will be reclaimed or sent for reclamation and how all residues, contaminated containment systems (liners, etc), contaminated soils, subsoils, structures, and equipment will be removed or decontaminated as necessary to protect human health and the environment (for guidance, see the March 16, 1998, memorandum entitled "Risk-Based Clean Closure," from Elizabeth Cotsworth, Acting Director, Office of Solid Waste, to RCRA Senior Policy Advisors. Available at *http://www.epa.gov/correctiveaction/resource/guidance/risk/cclosfnl.pdf*; (b) a description of the steps necessary to remove or decontaminate all hazardous secondary material residues and contaminated containment system components, equipment, structures, and soils including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination necessary to protect human health and the environment; (c) a description of any other activities necessary to protect human health and the environment during this time frame, including, but not limited to, leachate collection, run-on and run-off control, etc.; and (d) a schedule for conducting the activities.

This plan, which is essentially the subset of information required in a 40 CFR part 265 closure plan that would apply to excluded hazardous secondary material units, would still need to be reviewed by the Regional Administrator (or State Director, in authorized states) because that would ensure that EPA would agree that the hazardous secondary materials, or equipment contaminated with hazardous secondary materials, will not remain unregulated at the facility after it is no longer operating under an exclusion and no longer maintains financial assurance. As with the financial assurance release provision of 40 CFR part 264, the Regional Administrator will provide notice to the owner or operator and the public and an opportunity to submit written comments on the plan and request modifications to the plan. The Regional Administrator will approve, modify, or disapprove the plan within 90 days of its receipt.

Once residuals (and any hazardous secondary materials) have been removed and the unit has been decontaminated according to the plan, the facility would send a certification to that effect from the owner or operator and a qualified Professional Engineer to the regulatory agency, and that agency would then authorize the release of the financial assurance for those specific units, unless there is reason to believe that the hazardous secondary materials and residues were not removed (in which case the regulatory authority would send a written explanation of this fact). Again, this process is similar to that required under 40 CFR 265.115, as referenced in 40 CFR part 265 subpart H.

Operation of the Instruments if the Exclusion Is No Longer Applicable

As noted above, as long as a facility is operating under the transfer-based exclusion and the hazardous secondary material is not being discarded, there would be no need to invoke the financial assurance instruments. However, if the exclusion is no longer applicable, then the hazardous secondary material is a hazardous waste subject to the Subtitle C requirements and the Regional Administrator can invoke the instruments consistent with RCRA 3004(t) and related laws. Similarly, as in 40 CFR part 265, if an owner or operator fails to obtain an approved replacement instrument within 90 days after a notice of cancellation from a surety, issuer of a letter of credit, insurer, or guarantor, the Regional Administrator can invoke the instrument. The following descriptions of the instruments contain additional information on how the instruments operate under this rule.

Trust Funds

If facilities choose to use a trust fund, they must fully fund the trust before they can rely on it for financial assurance. This is consistent with the proposal, which was based on the pay-in provisions under 40 CFR part 265. In part 265, the pay-in period for trust funds is limited to the remaining operating life of a facility or 20 years from the effective date of the 40 CFR part 265 regulations, which became effective in 1982. Thus, under the exclusion, the pay-in period, which would allow a trust to build over time, is not available. This means that facilities that are not financially strong enough to qualify for the financial test and that cannot obtain a guarantee, such as a surety bond or a letter of credit from a third party (potentially because the surety or bank is not confident that it will be repaid if the instrument is called upon) will need to fully fund the trust before qualifying for the exclusion.

While the hazardous secondary materials retain the exclusion, EPA has no access to these funds. The trustee must meet the qualifications in 40 CFR 261.143(a)(1) and the wording of the trust agreement must be identical to the wording specified in § 261.151(a)(1). The trust agreement must include a Schedule A that lists each facility, including the units with hazardous secondary materials, and the amounts of the current cost estimates, or portions thereof, for which financial assurance is demonstrated by the trust. Schedule A of the trust agreement must be updated within 60 days after a change in the amount of the current cost estimate covered by the agreement.

Whenever the current cost estimate changes, the owner or operator must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new cost estimate, the owner or operator, within 60 days after the change in the cost estimate, must either (1) deposit an amount into the trust fund so that its value after this deposit at least equals the amount of the current cost estimate, or (2) obtain other financial assurance,

such as a letter of credit, to cover the difference.

There are also circumstances when the owner or operator may request a release of funds from the trust fund. If the value of the trust fund is greater than the total amount of the current cost estimate, the owner or operator may submit a written request to the Regional Administrator for release of the amount in excess of the current cost estimate. This could occur as a result of the closing of a unit at the facility and the submission of a revised cost estimate. Alternatively, the earning of the trust fund could exceed the increase in the cost estimate due to inflation. Further, if an owner or operator substitutes other financial assurance as specified in the regulations for all or part of the trust fund, he may submit a written request to the Regional Administrator for release of the amount in excess of the current cost estimate covered by the trust fund.

Within 60 days after receiving a request from the owner or operator for release of funds, the Regional Administrator will instruct the trustee to release to the owner or operator such funds that exceed the amount of the current cost estimate, as the Regional Administrator deems appropriate and specifies in writing. Alternatively, in the event that the owner or operator begins final closure of the unit under subpart G of 40 CFR part 264 or 265, an owner or operator may request reimbursements for partial or final closure expenditures by submitting itemized bills to the Regional Administrator.

The Regional Administrator will agree to termination of the trust fund when the owner or operator substitutes alternate financial assurance, such as receiving approval for an insurance policy to replace the trust, or if the owner or operator demonstrates that he meets the requirements of the financial test. It should be noted that both surety bonds and letters of credit require a standby trust, as discussed below. The Regional Administrator will also agree to the termination of the trust fund when he releases the owner or operator from the requirements of this section in accordance with 40 CFR 261.143(i).

The preceding discussion explained the operation of the regulations during the exclusion. The regulations also address the situation where the hazardous secondary materials lose their exclusion. The requirements in 40 CFR 261.151(a) for the trust fund provide that if the hazardous secondary materials lose their exclusion, EPA becomes the beneficiary of the trust, consistent with RCRA section 3004(t) and federal law. The trust fund also receives the proceeds of a payment surety bond or letter of credit if the hazardous secondary materials lose the exclusion. The trustee shall make payments from the Fund as the EPA shall order or direct, in writing, to provide for the payment of the costs of the performance of closure activities required under subpart G of 40 CFR parts 264 or 265 for the facilities covered by the trust agreement. This provision allows funds from the trust to be used to close facilities as hazardous waste facilities.

An owner or operator whose hazardous secondary materials have lost their exclusion, but subsequently meets the requirements for the exclusion, including establishing financial assurance in accordance with the provisions of 40 CFR 261.143, may request a reduction in the amount of the trust fund and the Regional Administrator may instruct the trustee to return funds to the owner or operator under Section 4 of the trust agreement in 40 CFR 261.151(a). For example, hazardous secondary materials could lose their exclusion and the Regional Administrator could draw upon a letter of credit being used to establish financial assurance and have it deposited into the trust fund. If the hazardous secondary materials regained their exclusion and the owner or operator substituted a new approved letter of credit, the Regional Administrator may direct the trustee to refund funds to the owner or operator.

Surety Bonds

The surety bond operates similarly to the payment surety bond in 40 CFR part 265, with some modifications to reflect the differences between a conditionally exempt hazardous secondary material and a hazardous waste. The surety bond must conform to the requirements of 40 CFR 261.143(b) and the owner or operator must submit the bond to the Regional Administrator. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on federal bonds in Circular 570 of the U.S. Department of the Treasury. The wording of the surety bond must be identical to the wording specified in 40 CFR 261.151(b).

The owner or operator who uses a surety bond must also establish a standby trust fund and submit an originally signed duplicate of the trust agreement with the surety bond. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust fund must meet the requirements specified in § 261.143(a), except that until the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in § 261.143(a);

(B) Updating of Schedule A of the trust agreement (see § 261.151(a)) to show current cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

The penal sum of the bond must be in an amount at least equal to the current cost estimate, except as provided in 40 CFR 261.143(f). The regulations at 40 CFR 261.143(f) allow the use of certain combinations of instruments so long as their sum is at least equal to the total cost estimates.

Whenever the current cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current cost estimate and submit evidence of such increase to the Regional Administrator or obtain other financial assurance as specified in the regulations in 40 CFR 261.143 to cover the increase. Whenever the current cost estimate decreases, the penal sum may be reduced to the amount of the current cost estimate following written approval by the Regional Administrator. So long as the owner or operator meets the exclusion, the Regional Administrator will not access the bond.

The Regional Administrator will agree to termination of the surety bond when the owner or operator substitutes alternate financial assurance, such as an approved insurance policy to replace the surety bond, or if the owner or operator demonstrates that he meets the requirements of the financial test. The Regional Administrator will also agree to the termination of the surety bond when he releases the owner or operator from the requirements of this section in accordance with 40 CFR 261.143(i). Under 40 CFR 261.151(b), the Principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the EPA Regional Administrator(s) of the EPA Region(s) in which the bonded facility(ies) is (are) located.

Under 40 CFR part 261, the surety becomes liable for funding the trust if the owner or operator has failed to fund the trust before the loss of the exclusion. The cancellation provisions for the

surety bond in 40 CFR part 261 operate similarly to the provisions in 40 CFR part 265. If the surety has issued a notice of cancellation, and the owner or operator has not funded the trust or obtained approval by the Regional Administrator of a replacement instrument within 90 days, the surety becomes liable for payment into the trust fund. Under the hazardous waste rules, if the surety issues a notice of cancellation and the owner or operator does not fund the trust or obtain approved alternative financial assurance within 90 days, the Regional Administrator may access the funds.

Reclamation and intermediate facilities, as under 40 CFR part 265, may not use a performance surety bond because there is no closure plan that has undergone review under the permitting process. The performance surety bond, which is allowed under the permitting standards in 40 CFR part 264 subpart H, requires the surety, in the event of a failure by the owner or operator to comply with the requirements of the closure requirements of 40 CFR part 264, to perform closure in accordance with the closure plan and permitting requirements or to deposit the penal sum of the bond into the standby trust. Closure plans for permitted facilities undergo detailed review as part of the permitting process, so it is appropriate to allow a surety to perform closure in this circumstance. However, like interim status facilities, reclamation and intermediate facilities do not have closure plans that undergo this type of review. "During interim status, the closure and post-closure plans for a facility are generally not reviewed by the Regional Administrator until shortly before the time of closure. Upon such review, the Regional Administrator may find that major changes are needed in the plans. The Agency believes a performance bond is not appropriate when the actual required performance for the particular facility may not be specified in any detail during most of the term of the bond" (47 FR 15040).

Letters of Credit

The letter of credit requirements generally operate similarly to the requirements in 40 CFR part 265, except that they reflect the status of conditionally exempt hazardous secondary materials. An owner or operator may satisfy the requirements of 40 CFR 261.143 by obtaining an irrevocable standby letter of credit which conforms to the requirements of 40 CFR 261.143(c) and submitting the letter to the Regional Administrator. The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or state agency.

The wording of the letter of credit must be identical to the wording specified in § 261.151(c). As with the surety bond, an owner or operator who uses a letter of credit must also establish a standby trust fund and submit to the Regional Administrator an originally signed duplicate of the trust agreement with the letter of credit. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Regional Administrator will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust fund must meet the requirements specified in § 261.143(a), except that until the standby trust fund is funded pursuant to the requirements of this section, the requirements, as noted above, that are not necessary for a surety bond are also not required for a letter of credit.

The letter of credit must be issued in an amount at least equal to the current cost estimate, except as provided in 40 CFR 261.143(f). The regulations in 40 CFR 261.143(f) allow the use of certain combinations of instruments so long as their sum is at least equal to the total cost estimates.

Whenever the current cost estimate increases to an amount greater than the amount of the letter of credit, the owner or operator, within 60 days after the increase, must either cause the amount of the letter of credit to be increased so that it at least equals the current cost estimate and submit evidence of such increase to the Regional Administrator or obtain other financial assurance as specified in the regulations in 40 CFR 261.143 to cover the increase. Whenever the current cost estimate decreases, the amount of the letter of credit may be reduced to the amount of the current cost estimate following written approval by the Regional Administrator.

The Regional Administrator will return the letter of credit to the issuing institution for termination when an owner or operator substitutes alternate financial assurance as specified in 40 CFR 261.143, or when the Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 261.143(i).

So long as the owner or operator meets the exclusion and maintains financial assurance, the Regional Administrator will not access the letter of credit. Access to the letter of credit only occurs upon the loss of the exclusion. For the letter of credit, in the event that the hazardous secondary materials at the covered reclamation or intermediate facilities no longer meet the conditions of the exclusion, EPA may draw upon the letter of credit. If the owner or operator does not establish alternate financial assurance and obtain written approval of such alternate assurance from the Regional Administrator within 90 days after a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Regional Administrator will draw on the letter of credit. When the Regional Administrator draws on the letter of credit, the proceeds are deposited into the standby trust fund, and the funds in the trust become available for the payment of the costs of closure in compliance with subpart G of 40 CFR parts 264 or 265.

Insurance

Insurance operates similarly to the insurance instrument in 40 CFR part 265, with some modifications to reflect differences between conditionally exempt hazardous secondary materials and hazardous wastes. An owner or operator may satisfy the requirements of 40 CFR 261.143 by obtaining insurance that conforms to the requirements of 40 CFR 261.143(d) and submitting a certificate of such insurance to the Regional Administrator At a minimum, the insurer must be licensed to transact the business of insurance or be eligible to provide insurance as an excess or surplus lines insurer, in one or more states.

The wording of the certificate of insurance must be identical to the wording specified in § 261.151(d). As part of the certificate, the insurer warrants that the policy conforms in all respects with the requirements of 40 CFR 261.143(d), as applicable, and agrees that any provision of the policy inconsistent with 40 CFR 261.143(d) is hereby amended to eliminate such inconsistency. The insurer also agrees to furnish to the EPA Regional Administrator(s) a duplicate original of the policy listed above, including all its endorsements, whenever requested by the Regional Administrator.

The insurance policy must be issued for a face amount at least equal to the current cost estimate, except as provided in § 261.143(f), which allows the use of certain combinations of instruments so long as their sum is at least equal to the total cost estimates.

Whenever the current cost estimate increases to an amount greater than the face amount of the policy, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current cost estimate

and submit evidence of such increase to the Regional Administrator or obtain other financial assurance as specified in 40 CFR 261.143 to cover the increase. Whenever the current cost estimate decreases, the face amount may be reduced to the amount of the current cost estimate following written approval by the Regional Administrator.

In 40 CFR 261.143(d)(4), the insurance policy must guarantee that funds will be available to pay the cost of removal of all hazardous secondary materials from the unit, to pay the cost of decontamination of the unit, and to pay the costs of the performance of any activities required under subpart G of 40 CFR parts 264 or 265 for the facilities covered by this policy, if they become necessary. This provision, as that in 40 CFR part 265, allows the owner or operator to recover the costs of removing hazardous secondary materials and is similar to the provisions in § 265.143(d) that allow the owner or operator of a facility to be reimbursed for the costs of closure. This provision also allows the Regional Administrator to allow reimbursement for the same activities that are allowed under the trust fund. The insurance provisions that allow for reimbursement for the cost of removal of hazardous secondary materials are broader than the provisions in 40 CFR 261.151(a) for payment from the trust fund. This difference is due to the fact that the monies in the trust fund are returned to the owner or operator once the facility exits the exclusion, but there is no such provision for insurance; in order to make the insurance provisions functionally equivalent to their counterparts in 40 CFR part 265, the insurance provisions must cover the cost of removing the hazardous secondary materials when the unit exits the exclusion. However, the owner or operator may request reimbursements only if the remaining value of the policy is sufficient to cover the maximum costs for the facility.

The Regional Administrator will give written consent to the owner or operator that he may terminate the insurance policy when the owner or operator substitutes alternate financial assurance as specified in § 261.143, or the Regional Administrator releases the owner or operator from the requirements of this section in accordance with § 261.143(i).

Under 40 CFR 261.143(d)(8), cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration, the conditional exclusion terminates or is revoked. This is analogous to the provisions for surety bonds and letters of credit that ensure that payments under those instruments will occur if the conditionally excluded hazardous secondary materials lose the exclusion.

Under the insurance provisions of § 265.143, failure of the owner or operator to pay the premiums of a policy without the substitution of an alternative mechanism constitutes a significant violation of the regulations. EPA was faced with a decision of how to implement that provision here. Since the exclusion relies upon compliance with the conditions, failure to pay the premium is significant and may result in loss of the exclusion. Similarly, loss of the exclusion will preclude the cancellation or termination of the policy. Under the circumstances, EPA recognizes that insurers may carefully screen applicants to ensure that they will meet the requirements of the exclusion and establish premiums, possibly with a substantial portion up front or collateralized, that reduce the insurer's risk of non-payment.

In 40 CFR 265.143(d)(1), there is a provision allowing an owner or operator of a treatment, storage, and disposal facility an additional 90 days from the effective date of the regulations to provide a certificate of insurance. The effective date of the interim status regulations was in 1982, and therefore this provision is no longer applicable and today's rule does not allow this additional 90 days. In keeping with the proposal to use requirements in subpart H of 40 CFR part 265, the additional 90-day period has been deleted from these regulations.

Financial Test

EPA had solicited comment on whether to use the financial assurance provisions in the standardized permit rule rather than those in 40 CFR part 265, but commenters generally did not support the standardized permit rule alternative. Therefore, certain provisions that are available under the standardized permit rule will not be available to reclamation and intermediate facilities, with one exception. The financial test provision referenced by subpart H of 40 part CFR 265 includes an obsolete requirement that the Certified Public Accountant's report state that "[i]n connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted." This is referred to by the auditing profession as a "negative assurance." However, the American Institute of Certified Public Accountants, Inc.'s (AICPA's) *Statement on Auditing Standards* no longer permits independent auditors to express negative assurance. Thus, to ensure that today's final rule conforms with current professional auditing standards, EPA is using the language from the standardized permit rule for this aspect of the financial test.[4]

As noted in the March 2007 supplemental proposal, the Agency currently has underway a review of the subpart H financial assurance regulations, which will address this issue among others in the broader context of 40 CFR parts 264 and 265. As part of any rulemaking that addresses the results of that review, EPA will include any necessary changes to the financial assurance condition being finalized today.

In today's regulation, the letter from the chief financial officer (*see* § 261.151(e) or (f)) contains a requirement to account for obligations assured through a financial test or corporate guarantee for facilities handling conditionally excluded hazardous secondary materials. This addition is necessary because the chief financial officer's letter required in the 40 CFR part 265 regulations does not anticipate these obligations.

The financial test and the letter from the chief financial officer use accounting terms, such as current assets, current liabilities, and liabilities. Under 40 CFR 261.141, which defines the terms used in this subpart, these and other accounting terms follow their definition in 40 CFR 265.141(f). As noted in 40 CFR 265.141(f), "The definitions are intended to assist in the understanding of these regulations and are not intended to limit the meanings of terms in a way that conflicts with generally accepted accounting practices." This is an important provision of the financial assurance regulations because it allows the terms used in the test to reflect evolving definitions. For example, if the accounting standards covering retiree obligations change, this provision ensures that the accounting in the financial test submission to EPA reflects the new standards. Companies may not use an obsolete definition of these terms.

Like the 40 CFR part 265 regulations, this regulation includes a provision

[4] For current EPA guidance for companies using the financial test in 40 CFR part 264 or 265, please see the February 27, 1997 Memorandum from Elizabeth Cotsworth to Senior RCRA Policy Advisors entitled "Obsolete Language in the Financial Test for Subtitle C Treatment Storage and Disposal Facilities," at *http://yosemite.epa.gov/osw/rcra.nsf/ea6e50dc62147252852 56bf00063269d/C68C99D730932BE28525670F006C2B4A/$file/14066.pdf.*

allowing an owner or operator to obtain a corporate guarantee as a method of complying with the financial assurance requirements. The provisions governing who may extend a guarantee are the same as those in 40 CFR part 265. Since there is no requirement for an up-front closure plan, the text of the guarantee in 40 CFR part 261 differs somewhat from the language in 40 CFR part 265. In § 261.151(g)(1), the guarantor "guarantees that in the event of a determination by the Regional Administrator that the hazardous secondary materials at the owner or operator's facility covered by this guarantee do not meet the conditions of the exclusion under § 261.4(a)(24), the guarantor will manage any hazardous secondary material in accordance with applicable regulations and close the facility in accordance with closure requirements found in parts 264 and 265 of this chapter or establish a trust fund as specified in § 261.143(a) in the name of the owner or operator in the amount of the current cost estimate."

Liability Requirements

The liability coverage requirements for sudden and nonsudden accidental occurrences in subpart H of 40 CFR part 261 are essentially the same as those for TSDFs in 40 CFR 265.147, with revised terminology so that the regulatory language applies to hazardous secondary material reclamation and intermediate facilities. Sudden accidental coverage for bodily injury and property damage to third parties is required for all units, and nonsudden accidental coverage is required for land-based units. Land-based units are defined in 40 CFR 260.10 as an area where hazardous secondary materials are placed in or on the land before recycling and are functionally equivalent to the units required to have nonsudden accidental coverage under 40 CFR 265.147(b) (e.g., surface impoundments). In addition, the provisions for requesting a variance or adjusting the coverage are the same as 40 CFR 265.147(c) and (d) respectively, except the reference that ties these procedures to the Subtitle C permit modification procedures under 40 CFR 270.41(a)(5) and 40 CFR 124.5 has been removed, because these provisions would not apply to excluded hazardous secondary material.

Other Financial Assurance Provisions

Finally, the provisions for incapacity of owners or operators, guarantors, or financial institutions (40 CFR 261.148), use of state-required mechanisms (40 CFR 261.149), and state assumption of responsibility (40 CFR 261.150) are essentially the same as their counterparts in 40 CFR part 265, with one exception. The state-required mechanism provisions have been expanded to indicate that states may allow facilities to use their existing Subtitle C financial assurance policies to address the financial assurance condition of 40 CFR 261.4(a)(24)(vi)(F), provided they can ensure that the instruments actually cover the financial assurance cost estimate.

5. Provisions Applicable to Hazardous Secondary Materials That Are Exported and Imported

Under today's final rule, generators who export hazardous secondary materials are required to notify the receiving country through EPA and obtain consent from that country before shipment of the hazardous secondary materials takes place (*see* 40 CFR 261.4(a)(25)). These notice and consent requirements provide notification to the receiving country so that it can ensure that the hazardous secondary materials are reclaimed rather than disposed of or abandoned. As an additional benefit, these requirements allow the receiving country the opportunity to consent or not consent based on its analysis of whether the reclamation facility can properly recycle the hazardous secondary materials and manage the process residuals in an environmentally sound manner within its borders. EPA believes that sections 2002, 3002, 3007, and 3017 of RCRA provide authority to impose this condition because such notice and consent help determine that the materials are not discarded.

Specifically, hazardous secondary materials that are exported from the United States and its territories and recycled at a reclamation facility located in a foreign country are not solid wastes, provided the hazardous secondary material generator complies with the requirements of 40 CFR 261.4(a)(25), including notifying EPA of the proposed export and obtaining subsequent consent from the receiving country.

Included by reference in 40 CFR 261.4(a)(25), the generator must comply with the requirements of 40 CFR 261.4(a)(24)(i)–(v), which comprise the hazardous secondary material generator requirements under the transfer-based exclusion, such as speculative accumulation and reasonable efforts. However, hazardous secondary material generators who export hazardous secondary materials for reclamation are not required to comply with 40 CFR 261.4(a)(24)(v)(B)(*2*) for foreign reclaimers and intermediate facilities because, as part of satisfying reasonable efforts, this question requires the generator to affirmatively answer if the reclaimer or intermediate facility has notified the appropriate authorities pursuant to § 260.42 and if the reclaimer or intermediate facility has financial assurance as required under § 261.4(a)(24)(vi)(F). Since foreign reclaimers and foreign intermediate facilities are not subject to U.S. regulations, they cannot comply with the notification and financial assurance requirements under today's rule (however, hazardous secondary material generators must affirmatively answer this question for domestic intermediate facilities).

The provisions that we are finalizing today in 40 CFR 261.4(a)(25) require hazardous secondary material generators to notify EPA of an intended export 60 days before the initial shipment is intended to be shipped off-site. The notification may cover export activities extending over a 12-month or shorter period. The notification must include contact information for the hazardous secondary material generator, as well as for the reclaimer and intermediate facility, including any alternate reclaimer or alternate intermediate facilities.[5] The notification must also include a description of the type(s) of hazardous secondary materials and the manner in which the hazardous secondary materials will be reclaimed, the frequency and rate at which they will be exported, the period of time over which they will be exported, the means of transport, the estimated total quantity of hazardous secondary materials to be exported, and information about transit countries through which such hazardous secondary materials will pass.

Notifications must be sent to EPA's Office of Enforcement and Compliance Assurance,[6] which will then notify the receiving country and any transit countries. For purposes of 40 CFR 261.4(a)(25), the terms "Acknowledgement of Consent," "receiving country," and "transit country" are used as defined in 40 CFR 262.51 with the exception that the terms in this section refer to hazardous

[5] Hazardous secondary material generators may choose, in the notice of export, to designate alternate reclaimers or alternate intermediate facilities to which the hazardous secondary materials may be exported in the event that delivery to the primary reclaimer or intermediate facility cannot take place. Hazardous secondary material generators, of course, must comply with all conditions (e.g., reasonable efforts) for each alternate reclaimer and alternate intermediate facility as with a primary reclaimer and intermediate facility.

[6] The Office of Enforcement and Compliance Assurance (OECA) is the office within EPA that implements the notice and consent process for exports.

secondary materials, rather than hazardous waste.

When the receiving country consents (or objects) to the receipt of the hazardous secondary materials, EPA will inform the hazardous secondary material generator, through an Acknowledgement of Consent, of the receiving country's response, as well as any response from any transit countries.

For exports to Organization for Economic Cooperation and Development (OECD) Member countries, the receiving country may choose to respond to the notification with tacit, rather than written, consent. With respect to exports to such OECD Member countries, if no objection has been lodged by the receiving country or transit countries to a notification within 30 days after the date of issuance of the acknowledgement of receipt of notification by the competent authority of the receiving country, the U.S. understands that an export may commence at that time. In such cases, EPA will send an Acknowledgment of Consent to inform the hazardous secondary material generator that the receiving country and any relevant transit countries have not objected to the shipment, and are thus presumed to have consented tacitly. Tacit consent expires one calendar year after the close of the 30-day period; re-notification and renewal of all consents is required for exports after that date. This tacit consent procedure for exports of hazardous secondary materials to OECD Member countries in this rule is similar to the tacit consent procedure for hazardous waste exports to OECD Member countries under 40 CFR part 262 subpart H. We note that Canada and Mexico, though they are OECD Member countries, typically require written consent for exports to their countries.

The hazardous secondary material generator may proceed with the shipment of the hazardous secondary materials only after it has received an Acknowledgment of Consent from EPA indicating the receiving country's consent (actual or tacit). If the receiving country does not consent to the receipt of the hazardous secondary materials or withdraws a prior consent, EPA will notify the hazardous secondary material generator in writing. EPA also will notify the hazardous secondary material generator of any responses from transit countries. Hazardous secondary material generators must keep copies of any notifications and consents for a period of three years following receipt of the consent.

Hazardous secondary material generators must also file with the Administrator, no later than March 1 of each year, a report containing its name, mailing and site address, and EPA ID number (if applicable); the calendar year covered by the report; the name and site address of each reclaimer and intermediate facility; and, for each hazardous secondary material exported, a description of the hazardous secondary material, the type of hazardous secondary material (reported as the EPA hazardous waste numbers that would apply if the hazardous secondary materials were managed as hazardous wastes), the DOT hazard class, the name and U.S. EPA ID number (where applicable) for each transporter used, the total amount of hazardous secondary material shipped and the number of shipments pursuant to each notification. Hazardous secondary material generators must also sign a certification statement (found under 40 CFR 261.4(a)(25)(xi)(E)). These procedures are similar to those required for exports of hazardous waste under 40 CFR part 262 subpart E, except for the use of the hazardous waste manifest which is not required under today's exclusions.

Imports of hazardous secondary materials are eligible for today's transfer-based exclusion, provided that the person who imports the hazardous secondary material fulfills all requirements and conditions (*e.g.*, notification, reasonable efforts, recordkeeping) for a hazardous secondary material generator under 40 CFR 261.4(a)(24) of today's rule. Persons who import hazardous secondary materials are not eligible for today's generator-controlled exclusion since EPA would not be able to ensure the close management and monitoring of the hazardous secondary materials by a single entity in a foreign country.

D. Termination of the Exclusion

As with the generator-controlled exclusion, units managing hazardous secondary materials excluded under the transfer-based exclusion are not subject to the closure regulations in 40 CFR parts 264 and 265 subpart G. However, when the use of these units is ultimately discontinued, all owners and operators must manage any remaining hazardous secondary materials that are not reclaimed and remove or decontaminate all hazardous residues and contaminated containment system components, equipment structures, and soils. These hazardous secondary materials and residues, if no longer intended for reclamation, would also no longer be eligible for the exclusion (which only applies to hazardous secondary materials that will be reclaimed). Failure to remove these materials within a reasonable time frame after operations cease could cause the facility to become subject to the full Subtitle C requirements if the Agency determines that reclamation is no longer feasible. While this final rule does not set a specific time frame for these activities, the Agency believes that they typically should be completed within the time frames established for analogous activities. For example, the requirements for product tanks under 40 CFR 261.4(c) allow 90 days for removal of hazardous material after the unit ceases to be operated for manufacturing. This time frame should serve as a guideline for regulators in determining, on a case-by-case basis, whether owners and operators have completed these activities within in a reasonable time frame. In any event, these hazardous secondary materials remain subject to the speculative accumulation restrictions in 40 CFR 261.4(a)(8), which includes both a time limitation of recycling 75% of the hazardous secondary material within a year and a requirement that the facility be able to show there is a feasible means of recycling the hazardous secondary material.

In addition, as described in section VIII.C. above, in order to be released from the financial assurance condition, intermediate and reclamation facilities will need to submit for approval a plan for removing the hazardous secondary material and decontaminating the unit, and then, when the work is completed, submit a certification from a qualified Professional Engineer that all hazardous secondary materials have been removed from the unit and the unit has been decontaminated.

E. Enforcement

Hazardous secondary materials transferred to a third party for the purpose of reclamation are excluded from RCRA Subtitle C regulation under certain conditions and restrictions. If a hazardous secondary material generator fails to meet any of the above-described conditions that are applicable to the generator, then the hazardous secondary materials would be considered discarded by the generator and would be subject to the RCRA Subtitle C requirements from the point at which such material was generated. In addition, if a reclaimer or an intermediate facility failed to meet any of the above-described conditions, then the hazardous secondary materials would be considered discarded by the reclaimer or intermediate facility and would be subject to the RCRA Subtitle C requirements from the point at which the reclaimer or intermediate facility

failed to meet a condition or restriction, thereby discarding the material.

It should be noted that the failure of the reclaimer or intermediate facility to meet the conditions of the exclusion does not mean that the hazardous secondary material was considered waste when handled by the generator, as long as the generator can adequately demonstrate that it has met its obligations, including the obligation under 40 CFR 261.4(a)(24)(v)(B) to make reasonable efforts to ensure that the hazardous secondary material will be reclaimed legitimately and properly managed. A hazardous secondary material generator that met its reasonable efforts obligations could, in good faith, ship its excluded materials to a reclamation facility or intermediate facility where, due to circumstances beyond its control, they were released and caused environmental problems at that facility. In such situations, and where the generator's decision to ship to that reclaimer or intermediate facility is based on an objectively reasonable belief that the hazardous secondary materials would be reclaimed legitimately and otherwise managed in a manner consistent with this regulation, the generator would not have violated the terms of the exclusion.

In addition, the Agency affirms in this preamble that § 261.2(f) applies to all claims that hazardous secondary materials are not solid waste because they are being legitimately recycled, including those that are not specifically addressed in this final rule. Respondents in enforcement cases should be prepared to demonstrate that they meet the terms of the exclusion or exemption, which includes demonstrating that the recycling is legitimate. Appropriate documentation must be provided to the enforcing agency to demonstrate that the material is not a solid waste or is exempt from regulation. In addition, the recycler of the hazardous secondary material should be prepared to show it has the necessary equipment to perform the recycling operation. Furthermore, any release of the hazardous secondary materials to the environment that is not immediately cleaned up would be considered discarded and, thus, the hazardous secondary material that was released would be a solid waste and potentially subject to the RCRA hazardous waste regulations.

IX. Legitimacy

As part of this final rulemaking, EPA has decided to codify in 40 CFR 260.43 the requirement that materials be legitimately recycled as a requirement for the exclusion for hazardous secondary materials that are legitimately reclaimed under the control of the generator (40 CFR 261.2(a)(2)(ii) and 40 CFR 261.4(a)(23)) and as a condition of the exclusion for hazardous secondary materials that are transferred for the purpose of legitimate reclamation (40 CFR 261.4(a)(24) and 40 CFR 261.4(a)(25)). EPA is also requiring that hazardous secondary materials must be legitimately recycled under the final non-waste determinations (40 CFR 260.34) for hazardous secondary materials that are (a) reclaimed in a continuous industrial process and (b) indistinguishable in all relevant aspects from a product or intermediate.

In addition, in Section IX.B.3, EPA has included a discussion of how the current legitimacy policy continues to apply to existing exclusions and how the four factors being added to 40 CFR 260.43 are substantively the same as the current legitimacy policy.

A. Background of Legitimacy

Under the RCRA Subtitle C definition of solid waste, many existing hazardous secondary materials are not solid wastes and, thus, not subject to RCRA's "cradle to grave" management system if they are recycled. The basic idea behind this construct is that recycling of such materials often closely resembles normal industrial manufacturing rather than waste management. However, since there can be a significant economic incentive to manage hazardous secondary materials outside the RCRA regulatory system, there is a potential for some handlers to claim that they are recycling, when, in fact, they are conducting waste treatment and/or disposal in the guise of recycling.[7] To guard against this, EPA has long articulated the need to distinguish between "legitimate" (i.e., true) recycling and "sham" (i.e., fake) recycling, beginning with the preamble to the 1985 regulations that established the definition of solid waste (50 FR 638, January 4, 1985).

In the October 28, 2003, proposal at 68 FR 61581–61588, EPA discussed its position on the relevance of legitimacy to hazardous secondary materials recycling in general and to the redefinition of solid waste specifically. We proposed to codify in the RCRA hazardous waste regulations four general criteria to be used in determining whether recycling of hazardous secondary materials is legitimate. In the supplemental proposal of March 26, 2007, at 72 FR 14197–14201, we proposed two changes to the 2003 proposed legitimacy criteria and asked for public comment on those changes. The changes were (1) a restructuring of the proposed criteria, called "factors" in this proposal, to make two of them mandatory, while leaving the other two as factors to be considered, and (2) additional guidance on how the economics of the recycling activity should be considered in a legitimate recycling determination.

The concept of legitimacy being finalized in today's rule as a restriction or a condition for the final exclusions and the non-waste determinations is not substantively different from the Agency's longstanding policy that has been expressed in our earlier preamble discussions and policy statements. The October 28, 2003, definition of solid waste proposal discussed the history of the guidance EPA has provided to the regulated community on the question of what it means to legitimately recycle. To summarize that discussion, the January 4, 1985, preamble to the final rule that promulgated the original definition of solid waste regulations established EPA's concept of legitimacy and described several indicators of sham recycling. A similar discussion that addressed legitimacy as it pertains to burning hazardous secondary materials for energy recovery was presented in the preamble to the January 8, 1988, proposed amendments to the definition of solid waste (53 FR 522).

On April 26, 1989, the Office of Solid Waste (OSW) issued a memorandum that consolidated preamble statements concerning legitimate recycling that had been articulated previously into a list of criteria to be considered in evaluating legitimacy [OSWER directive 9441.1989(19)]. This memorandum, known to many as the "Lowrance Memo," has been a primary source of guidance for the regulated community and for implementing agencies in distinguishing between legitimate and sham recycling for many years.

The legitimacy provision applicable to these exclusions and non-waste determinations is based on the October 2003 proposal and March 2007 supplemental proposal and all relevant information available to EPA as contained in the rulemaking record. The basis for how the legitimacy requirement in 40 CFR 260.43 works

[7] As an example of sham recycling, in a recent case the owner of a facility in Mississippi was found to be illegally burying hazardous waste on his property, where it was leaching into the surrounding soil and groundwater, while he was telling regulators and customers that he was recycling it into a salable product (Department of Justice, "Mississippi Hazardous Waste Operator Sentenced to 41 Months in Prison for Environmental Crimes," news release, February 7, 2008, *http://www.epa.gov/compliance/resources/cases/criminal/highlights/2008/pridemore-02-07-08.pdf*).

includes the reasoning in the October 2003 and March 2007 preambles to the proposal and supplemental proposal, respectively, and consideration of all significant public comments as discussed in section XVIII of this preamble, as well as in the response to comment document.

Following the detailed discussion of the structure of the 40 CFR 260.43 legitimacy factors and each individual factor in this preamble, EPA has included a discussion of how the current legitimacy policy continues to apply to existing exclusions and how the four factors being added to 40 CFR 260.43 compare to the questions in the Lowrance Memo and the discussions in the preambles identified above.

B. How To Determine When Recycling Is Legitimate

1. What Is the Purpose of Legitimacy?

As discussed in the October 2003 proposal and the March 2007 supplemental proposal to this rulemaking, the Agency has a long-standing policy that all recycling of hazardous secondary materials must be legitimate, including both excluded recycling and the recycling of regulated hazardous wastes. The legitimacy provision in today's final exclusions and non-waste determinations is designed to distinguish between real recycling activities—legitimate recycling—and "sham" recycling, an activity undertaken by an entity to avoid the requirements of managing a hazardous secondary material as a hazardous waste. Because of the economic advantages in managing hazardous secondary materials as recycled materials rather than as wastes, there is an incentive for some handlers to claim they are recycling when, in fact, they are conducting waste treatment and/or disposal.

2. Legitimacy Requirements

In this action, EPA is finalizing requirements that reclamation being undertaken under the exclusions at § 261.2(a)(2)(ii), § 261.4(a)(23), (24), and (25) and the non-waste determinations at § 260.30(d) and (e) be legitimate. These requirements can be found in the final regulatory text at § 260.34(b), § 261.2(a)(2)(ii), § 261.4(a)(23)(v), and § 261.4(a)(24)(iv). Each of these provisions refers to § 260.43, where the full requirements for determining the legitimacy of the reclamation operation can be found.

The design of legitimacy in the final rule has two parts. The first is a requirement that hazardous secondary materials being recycled provide a useful contribution to the recycling process or to the product of the recycling process and a requirement that the product of the recycling process is valuable. These two legitimacy factors make up the core of legitimacy and, therefore, a process that does not conform to them cannot be a legitimate recycling process, but would be considered sham recycling.

The second part of legitimacy is two factors that must be considered when a recycler is making a legitimacy determination. EPA believes that these two factors are important in determining legitimacy, but has not made them factors that must be met because the Agency knows that there will be some situations in which a legitimate recycling process does not conform to one or both of these two factors, yet the reclamation activity would still be considered legitimate. EPA does not believe that this will be a common occurrence, but in recognition that legitimate recycling may occur in these situations, EPA has made management of the hazardous secondary materials and the presence of hazardous constituents in the product of the recycling process to be factors that must be considered in the overall legitimacy determination, but not factors that must always be met.

Structure of legitimacy provision. Under the first paragraph of 40 CFR 260.43, hazardous secondary materials that are not legitimately recycled are discarded materials and, therefore, are solid wastes. This paragraph also states that anyone claiming an exclusion at § 261.2(a)(2)(ii), § 261.4(a)(23), § 261.4(a)(24), or § 261.4(a)(25) or using a non-waste determination at § 260.30(d) or (e) must be able to demonstrate that its recycling activity is legitimate. The Agency has included the language "In determining if their recycling is legitimate, persons must address the requirements of § 260.43(b) and must consider the requirements of § 260.43(c)" to make it clear that the factors in paragraph (b) must be met, while the factors in paragraph (c) must be considered and evaluated in determining whether the recycling activity overall is legitimate.

Although there is no specific recordkeeping requirement that goes with the ability to demonstrate legitimacy, EPA would expect that in the event of an inspection or an enforcement action by an implementing agency, the recycler would be able to show how it made the overall legitimacy determination per § 261.2(f).[8] In the event that the process does not conform to one of the two factors under § 260.43(c), the facility should be able to show that it considered that factor and why the recycling activity overall remains legitimate. For example, under existing exclusions from the definition of solid waste, reuse of lead contaminated foundry sands may or may not be legitimate, depending on the use. The use and reuse of foundry sands for mold making in a facility's sand loop under normal industry practices has been found to be legitimate because the sand is part of an industrial process where there is little chance of the hazardous constituents being released into the environment or causing damage to human health and the environment when it is kept inside, because there is lead throughout the foundry's process, and because there is a clear value to reusing the sand.[9] However, in the case of lead contaminated foundry sand used as children's play sand, the same high levels of lead would disqualify this use from being considered legitimate recycling.[10] the same result would be reached when applying Factor 4.

Factor 1—Useful Contribution. "Legitimate recycling must involve a hazardous secondary material that provides a useful contribution to the recycling process or to a product of the recycling process * * * The hazardous secondary material provides a useful contribution if it (i) contributes valuable ingredients to a product or intermediate; or (ii) replaces a catalyst or carrier in the recycling process; or (iii) is the source of a valuable constituent recovered in the recycling process; or (iv) is recovered or regenerated by the recycling process; or (v) is used as an effective substitute for a commercial product" (40 CFR 260.43(b)(1)).

This factor, one of the two core legitimacy factors, expresses the principle that hazardous secondary materials should contribute value to the recycling process. This factor is an

[8] Under the transfer-based exclusion being finalized in today's rule, a reclaimer should also anticipate that a hazardous secondary material generator may inquire as to whether the reclamation process is legitimate (40 CFR 261.4(a)(24)(v)(B)(1)). Reasonable effort inquiries will vary by generator and may include a request for information or documentation of legitimacy.

[9] Letter. Elizabeth Cotsworth, Director Office of Solid Waste, to Amy Blankenbiller, American Foundry Society, March 28, 2001. *http://yosemite.epa.gov/osw/rcra.nsf/0c994248c239947e85256d090071175f/4C9A2EEE6E5F859B85256AC5004FC1C2/$file/14534.pdf*

[10] One of the profiles in the docket shows that from 1997–1998, a horticultural nursery purchased approximately 375 tons of foundry sand that contained lead above the regulatory limits and that was then bagged and sold as play sand to approximately 40 different retailers. (U.S. EPA, *An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials,* Appendix 2).

essential element to legitimate recycling because real recycling is not occurring if the hazardous secondary materials being added or recovered do not add anything to the process. This factor is intended to prevent the practice of adding to or recovering hazardous secondary materials from a manufacturing operation simply as a means of disposing of them, or recovering only small amounts of a constituent, which EPA would consider sham recycling.

In response to comments received on this factor asking for more clarification on what useful contribution means, the regulatory text includes an explanation of how useful contribution might be achieved in (i) through (v) of § 260.43(b)(1). EPA stresses that the ways in which hazardous secondary materials can add value and be useful in a recycling process are (i) contributing valuable ingredients to a product or intermediate; (ii) replacing a catalyst or carrier in the recycling process; (iii) providing a valuable constituent to be recovered; (iv) being regenerated; or (v) being used as an effective substitute for a commercial product. The preamble to the October 2003 proposed rule gave full descriptions of these five situations (68 FR 61585), but the Agency has also included them in the regulatory text to clarify this factor for the regulated community.

The Agency also wants to restate for clarification that for hazardous secondary materials to meet the useful contribution factor, not every constituent or component of the hazardous secondary material has to make a contribution to the recycling activity. For example, a legitimate recycling operation involving precious metals might not recover all of the components of the hazardous secondary material, but would recover precious metals with sufficient value to consider the recycling process legitimate. In addition, the recycling activity does not have to involve the hazardous component of the hazardous secondary materials if the value of the contribution of the non-hazardous component justifies the recycling activity. One example of this factor from an existing exemption is where hazardous secondary materials containing large amounts of zinc, a non-hazardous component, are recycled into zinc micronutrient fertilizers. In cases where the hazardous component is not being used or recycled, the Agency stresses that the recycler is responsible for the management of any hazardous residuals of the recycling process.

In a situation where more than one hazardous secondary material is used in a single recycling process and the hazardous secondary materials are mixed or blended as a part of the process, each hazardous secondary material would need to satisfy the useful contribution factor. This requirement prevents situations where a worthless hazardous secondary material could be mixed with valuable and useful hazardous secondary materials in an attempt to disguise and dispose of it. In addition, a situation in which hazardous secondary materials that can be useful to a process are added to that process in much greater amounts than are needed to make the end-product or to otherwise provide its useful contribution would also be sham recycling.

Another way the usefulness of the hazardous secondary material's contribution could be demonstrated is by looking at the efficiency of the material's use in the recycling process—that is, how much of the constituent in a hazardous secondary material is actually being used. As an example, if there is a constituent in the hazardous secondary material that could add value to the recycling process, but, due to process design, most of it is not being recovered but is being disposed of in the residuals, this would be a possible indicator of sham recycling. However, there are certainly recycling scenarios where a low recovery rate could still be legitimate. For example, under an existing exclusion, if the concentration in a metal-bearing hazardous secondary material is low (2%–4%) and a recycling process was able to recover a large percentage of the target metal, this factor could be met and the recycling may be legitimate (depending on the outcome of the analysis of the other legitimacy factors).

One way to use the efficiency of the recycling process to evaluate legitimacy is to compare the process to typical industry recovery rates from raw materials to determine if the recycling process is reasonably efficient. This method should involve an examination of the overall process, not just a single step of the process. For example, if one step in the process recovers a small percentage of the constituent, but the overall process recovers a much larger percentage, the Agency would consider the overall efficiency of the recycling process in determining whether hazardous secondary materials are providing a useful contribution.

There are various ways in which hazardous secondary materials can be useful to a recycling process and various ways are laid out in this discussion of how a facility might demonstrate conformity with this factor. In addition, we provided a number of different ways a material could contribute to the process in the regulatory text describing this factor. Any one of these would be sufficient to demonstrate that the hazardous secondary material provides a useful contribution. Overall, the Agency considers this factor to be a critical element in determining legitimacy and any recycling process that does not meet this factor cannot be considered legitimate recycling.

Factor 2—Valuable Product or Intermediate. "The recycling process must produce a valuable product or intermediate * * * The product or intermediate is valuable if it is (i) sold to a third party or (ii) used by the recycler or the generator as an effective substitute for a commercial product or as an ingredient or intermediate in an industrial process" (40 CFR 260.43(b)(2)).

This factor, one of the two core legitimacy factors, expresses the principle that the product or intermediate of the recycling process should be a material of value, either to a third party who buys it from the recycler, or to the generator or recycler itself, who can use it as a substitute for another material that it would otherwise have to buy or obtain for its industrial process. This factor is also an essential element of the concept of legitimate recycling because recycling cannot be occurring if the product or intermediate of the recycling process is not of use to anyone and, therefore, is not a real product. This factor is intended to prevent the practice of running a hazardous secondary material through an industrial process to make something just for the purpose of avoiding the costs of hazardous waste management, rather than for the purpose of using the product or intermediate of the recycling activity. Such a practice would be sham recycling.

Most commenters on the proposed rule for this factor stated that this is a useful way of gauging whether recycling is actually taking place, but requested that the Agency clarify the meaning of the term valuable, as it is used in the regulatory text. EPA is repeating and clarifying today that for the purpose of this factor, a recyclable product may be considered "valuable" if it can be shown to have either economic value or a more intrinsic value to the end user. Evaluations of "valuable" for the purpose of this factor should be done on a case-by-case basis, but one way to demonstrate that the recycling process yields a valuable product would be the documented sale of a product of the recycling process to a third party. Such documentation could be in the form of

receipts or contracts and agreements that establish the terms of the sale or transaction. This transaction could include money changing hands or, in other circumstances, may involve trade or barter. A recycler that has not yet arranged for the sale of its product to a third party could establish value by demonstrating that it can replace another product or intermediate that is available in the marketplace. A product of the recycling process may be sold at a loss in some circumstances, but the recycler would have to be prepared to show how the product is clearly valuable to the purchaser.

However, many recycling processes produce outputs that are not sold to another party, but are instead used by the generator or recycler. A product of the recycling process may be used as a feedstock in a manufacturing process, but have no established monetary value in the marketplace. Such recycled products or intermediates would be considered to have intrinsic value, though demonstrating intrinsic value may be less straightforward than demonstrating value for products that are sold in the marketplace. Demonstrations of intrinsic value could involve showing that the product of the recycling process or intermediate replaces an alternative product that would otherwise have to be purchased or could involve a showing that the product of the recycling process or intermediate meets specific product specifications or specific industry standards. Another approach could be to compare the product's or intermediate's physical and chemical properties or efficacy for certain uses with those of comparable products or intermediates made from raw materials.

Some recycling processes may consist of multiple steps that may occur at separate facilities. In some cases, each processing step will yield a valuable product or intermediate, such as when a metal-bearing hazardous secondary material is processed to reclaim a precious metal and is then put through another process to reclaim a different mineral. When each step in the process yields a valuable product or intermediate that is salable or usable in that form, the recycling activity would conform to this factor.

Like the other factors, this factor should be examined and evaluated on a case-by-case basis looking at the specific facts of a recycling activity. If, for instance, a recycling activity produces a product or intermediate that is used by the recycler itself, but does not serve any purpose and is just being used so that the product or intermediate appears valuable, that would be an indicator of sham recycling. An example of this would be a recycler that reclaims a hazardous secondary material and then uses that material to make blocks or building materials for which it has no market and then "uses" those building materials to make a warehouse in which it stores the remainder of the building materials that it is unable to sell.

Factor 3—Managed as a Valuable Commodity. "The generator and the recycler should manage the hazardous secondary material as a valuable commodity. Where there is an analogous raw material, the hazardous secondary material should be managed, at a minimum, in a manner consistent with the management of the raw material. Where there is no analogous raw material, the hazardous secondary material should be contained. Hazardous secondary materials that are released to the environment and are not recovered immediately are discarded" (40 CFR 260.43(c)(1)).

The first of the additional factors that must be considered expresses the principle that hazardous secondary materials being recycled should be managed in the same manner as other valuable materials. This factor requires those making a legitimacy determination to look at how the hazardous secondary material is managed before it enters the recycling process. In EPA's view, a recycler will value hazardous secondary materials that provide an important contribution to its process or product and, therefore, will manage those hazardous secondary materials in a manner consistent with how it manages a valuable feedstock. If, on the other hand, the recycler does not manage the hazardous secondary materials as it would a valuable feedstock, that behavior may indicate that the hazardous secondary materials may not be recycled, but rather released into the environment and discarded.

This factor may be particularly appropriate in the case where a recycler has been paid by a generator to take its materials as a result of the economic incentives in the hazardous secondary materials market. By looking at the management of the hazardous secondary material before it enters the recycler's process, the entity making the legitimacy determination can tell that a material being managed like an analogous raw material is, in fact, valued by the recycler. If the hazardous secondary material is not being managed like a valuable raw material because it is uncontrolled or is being released, that indicates that the fee the recycler obtains for taking the hazardous secondary material may be its only value to that recycler. If the fee received were the only value to the recycler, it would mean that discard was taking place.

This factor addresses the management of hazardous secondary materials in two distinct situations. The first situation is when a hazardous secondary material is analogous to a raw material which it is replacing in the process. In this case, the hazardous secondary material should be managed prior to recycling similarly to the way the analogous raw materials are managed in the course of normal manufacturing. EPA expects that all parties handling hazardous secondary materials destined for recycling—generators, transporters, intermediate facilities and reclamation facilities—will handle them in generally the same manner in which they would handle the valuable raw materials they might otherwise be using in their process. "Analogous raw material," as defined elsewhere in this preamble, is a raw material for which the hazardous secondary material substitutes and which serves the same function and has similar physical and chemical properties as the hazardous secondary material.

The second situation the factor addresses is the case where there is no analogous raw material that the hazardous secondary material is replacing. This could be either because the process is designed around a particular hazardous secondary material—that is, the hazardous secondary material is not replacing anything—or it could be because of physical or chemical differences between the hazardous secondary material and the raw material that are too significant for them to be considered "analogous."

Hazardous secondary materials that have significantly different physical or chemical properties when compared to the raw material would not be considered analogous even if they serve the same function because it may not be appropriate to manage them in the same way. In this situation, the hazardous secondary material would have to be contained for this factor to be met. A hazardous secondary material is "contained" if it is placed in a unit that controls the movement of that material out of the unit. This requirement is consistent with the idea that normal manufacturing processes are designed to use valuable material inputs efficiently rather to than allow them to be released into the environment.

For example, if a manufacturer has an ingredient that is a dry raw material managed in supersacks, the Agency would expect that a hazardous secondary material that is a similar dry

material also would be managed in supersacks or in a manner that would provide equivalent protection. If, on the other hand, the hazardous secondary material was instead managed in an outdoor pile without appropriate controls in place to address releases to the environment, it may indicate that it was not being handled as a valuable commodity. If, however, the manufacturer decided to replace the dry raw material in its process with a liquid having the same constituents, it would not be sufficient, nor would it make sense, for the liquid to be managed in supersacks. Instead, the liquid would have to be "contained" (for example in a tank or surface impoundment).

An important part of this factor is the statement in the regulatory text clarifying that hazardous secondary materials that are released to the environment and not recovered immediately are discarded. Valuable products should not be allowed to escape into the environment through poor management and this factor clarifies that those hazardous secondary materials that do escape (and are not immediately recovered) are clearly discarded. Either a large release or ongoing releases of smaller amounts could indicate that, in general, the hazardous secondary material is not being managed as a valuable product, which could potentially lead to the recycling process being found not to be legitimate. Hazardous secondary materials that are immediately recovered before they disperse into the environment—air, soil, or water—and are reintroduced in the recycling process are not discarded. This determination must be made on a case-by-case basis, however.

EPA has determined that it is appropriate that this factor is one of the two that must be considered rather than a factor that must be met because there are situations in which this factor is not met, but recycling appears to be legitimate. An example of this kind of situation is described in the March 2007 supplemental proposal (72 FR 14199). In the example, a hazardous secondary material that is a powder-like material is shipped in a woven super sack and stored in an indoor containment area, whereas the analogous raw material is shipped and stored in drums. A strict reading of this factor may determine that the hazardous secondary material is not being managed in a manner consistent with the raw material even if the differences in management are not actually impacting the likelihood of a release. By designing the legitimacy factors so that this one has to be considered, but not necessarily met, the individual facts of situations like the one described here can be evaluated on a case-by-case basis to determine if they affect the legitimacy of the recycling activity.

In summary, given the nature of the legitimacy factors and their need to apply to all the practices covered by the exclusions in this final rule, it is not appropriate or practicable for EPA to develop a specific management standard. In the absence of such a management standard, EPA is using this factor: materials must be managed as analogous raw materials or, if there are no analogous raw materials, the materials must be contained. EPA's intent with this factor is that hazardous secondary materials are managed in the same manner as materials that have been purchased or obtained at some cost, just as raw materials are. Just as it is good business practice to ensure that raw materials enter the manufacturing process rather than being spilled or released, we would expect hazardous secondary materials to be managed effectively and efficiently in order that their full value to the manufacturing process would be realized.

Factor 4—Comparison of Toxics in the Product. "The product of the recycling process does not (i) contain significant concentrations of any hazardous constituents found in Appendix VIII of part 261 that are not found in analogous products; or (ii) contain concentrations of any hazardous constituents found in Appendix VIII of part 261 at levels that are significantly elevated from those found in analogous products; or (iii) exhibit a hazardous characteristic (as defined in part 261 subpart C) that analogous products do not exhibit" (40 CFR 260.43(c)(2)).

The second of the additional factors that must be considered requires those making a legitimacy determination to look at the concentrations of the hazardous constituents found in the product made from hazardous secondary materials and compare them to the concentrations of hazardous constituents in analogous products. Any of the following three situations could be an indicator of sham recycling: a product that contains significant levels of hazardous constituents that are not found in the analogous products; a product with hazardous constituents that were in the analogous products, but contains them at significantly higher concentrations; or a product that exhibits a hazardous characteristic that analogous products do not exhibit. Any of these situations could indicate that sham recycling is occurring because in lieu of proper hazardous waste disposal, the recycler could have incorporated hazardous constituents into the final product when they are not needed to make that product effective in its purpose. This factor, therefore, is designed to determine when toxics that are "along for the ride" are discarded in a final product and, therefore, the hazardous secondary material is not being legitimately recycled.

To evaluate this factor, a recycler will ordinarily compare the product of the recycling process to an analogous product made of raw materials. For example, if a recycling process produced paint, the levels of hazardous constituents in the paint will be compared with the levels of the same constituents found in similar paint made from virgin raw materials.

A recycler is also allowed to perform this evaluation by comparing the hazardous constituents in the hazardous secondary material feedstock with those in an analogous raw material feedstock. If the hazardous secondary material feedstock does not contain significantly higher concentrations of hazardous constituents than the raw material feedstock, then the end product of the recycling process would not contain excess hazardous constituents "along for the ride" either. EPA is clarifying here that this method of showing that the product does not have "toxics along for the ride" is acceptable. There may be cases in which it is easier to compare feedstocks than it is to compare products because the recycler knows that the hazardous secondary material is very similar in profile to the raw material. A comparison of feedstocks may also be easier in cases where the recycler creates an intermediate which is later processed again and may end up in two or more products, when there is no analogous product, or when production of the product of the recycling process has not yet begun.

This factor identifies three ways to evaluate whether or not unacceptable amounts of hazardous constituents are passed through to the products of the recycling process. (As explained above, these methods also could be used to compare the hazardous secondary material feedstock to a raw material feedstock, if the recycler prefers.) The first method specifies that when analogous products made from raw materials do not contain hazardous constituents, the product of the recycling process should not contain significant amounts of hazardous constituents. For example, if paint made from reclaimed solvent contains significant amounts of cadmium, but the same type of paint made from virgin raw materials does not contain cadmium, it could indicate that the cadmium serves

no useful purpose and is being passed though the recycling process and discarded in the product.

The second method addresses analogous products that do contain hazardous constituents and asks whether the concentrations of those hazardous constituents are significantly higher in the product of the recycling process than in the product made from raw materials. Concentrations of hazardous constituents in the product of the recycling process that are significantly higher than in the product made from virgin raw materials could again be an indicator of sham recycling. For example, if a lead-bearing hazardous secondary material was reclaimed and then that material was used as an ingredient in making ceramic tiles and the amount of lead in the tiles was significantly higher than the amount of lead found in similar tiles made from virgin raw materials, the recycler should look more closely at the factors to determine the overall legitimacy of the process.

The third method under this factor is whether the product of the recycling process exhibits a hazardous characteristic that analogous products do not exhibit. Requiring an evaluation of hazardous characteristics ensures that products of the recycling process do not exhibit the characteristics of toxicity, ignitability, corrosivity, or reactivity when the analogous products do not. The Agency believes that most issues associated with "toxics along for the ride" will involve the presence of toxic constituents, which are addressed under the first two parts of the factor. That is, we believe that it is likely that there are few instances where hazardous secondary materials are used in the process and hazardous constituents are not present at significantly higher levels, but the product made from the hazardous secondary material nevertheless exhibits the hazardous characteristic of toxicity when the analogous product does not. It is possible, though, that the use of hazardous secondary materials as an ingredient could cause a product to exhibit a hazardous characteristic, such as corrosivity, that is not exhibited by analogous products.

The Agency has determined that it is appropriate for this factor to be considered in legitimacy determinations under the final exclusions and in the non-waste determinations in this action, but thinks that there may be situations in which the factor is not met but the recycling would still be considered legitimate. An example of this kind of situation that has been addressed by the Agency under the current regulatory scheme would be in the use and reuse of foundry sands for mold making in a facility's sand loop. Because of repeated exposure to metals in a foundry's process, the sands used to make the molds may have significantly higher concentrations of hazardous constituents than virgin sand. However, because the sand is part of an industrial process where there is little chance of the hazardous constituents being released into the environment or causing damage to human health and the environment when it is kept inside, because there is lead throughout the foundry's process, and because there is a clear value to reusing the sand, this would be an example of a situation where this factor is not met, but it does not affect the legitimacy of the recycling process.

In fact, EPA has concluded as a general matter that foundries engaged in the reuse of lead-containing foundry sands are recycling those sands legitimately and these sands would not be regulated under RCRA Subtitle C (under the circumstances described in EPA's March 2001 memorandum on this subject).[11] Thus, while the used sands in the sand loop arguably have toxics-along-for-the ride, EPA did not raise questions about the legitimacy of the recycling, given the overall nature of the operations. If the used foundry sand were being recycled into a different product, such as a material used on the ground or in children's play sand, the legitimacy determination would be very different and significant levels of metals would likely render the recycling illegitimate. The same conclusions would be reached applying the factors codified in 260.43.

Another example of recycling that may be legitimate although this factor has not been met could be when the material has concentrations of toxics that could be considered "significantly higher" than the analogous product, but meets industry specifications for the product that include specific specifications for the hazardous constituent of concern. Meeting accepted industry standards would be a strong indication that this material is being legitimately recycled. A third example could be in the mining and mineral processing industry. In many mineral processing operations, the very nature of an operation results in hazardous constituents concentrating in the product as it proceeds through the various steps of the process. In many cases, there is not an analogous product to compare the products of these processes so this factor may not be relevant because of the nature of the operations. As with the above example, if a facility considers a factor and decides that it is not applicable to its process, the Agency suggests that the facility evaluate the presence of hazardous constituents in its product and be prepared to demonstrate both that it considered this factor and the reasons it believes the factor is not relevant.

As discussed in more detail in the comments section of this preamble (section XVIII) and in the response to comments document in the docket, commenters on this factor requested clarification concerning what EPA meant by the terms used in this factor. In response to some of these comments, EPA has made two clarifications in the regulatory text by (1) specifying that the hazardous constituents referred to in the regulation are those that are found in Appendix VIII to 40 CFR part 261 and (2) clarifying that the hazardous characteristics to which EPA is referring to are those in 40 CFR part 261 subpart C.

The Agency also received much comment on the term "significant" and what the Agency intended by this term. EPA has decided to keep the term in the final rule. The alternative to using "significant" or a similarly flexible term to determine when there may be hazardous constituents in the product made from recycled hazardous secondary materials that are not in the analogous products made from raw materials would be to set an absolute standard. In its discussion of legitimacy in the October 2003 proposed rule, EPA discussed possible "bright line" or risk-based approaches as a way to set absolute lines to define "significant" based on either a numerical limit or a risk level (68 FR 61587–61588). EPA recognizes that the "bright line" or the risk-based approach may provide greater clarity and predictability to the regulated community, but that in both cases the Agency would have to establish a line for what is acceptable and the line may either be somewhat arbitrary or it may exclude recycling practices that, if carefully considered, should be considered legitimate. Based on the comments received on those approaches, we are convinced that they would not be workable.

On the other hand, a case-by-case analysis of a recycling process can take into consideration the relevant principles and facts for that activity,

[11] Letter. Elizabeth Cotsworth, Director Office of Solid Waste, to Amy Blankenbiller, American Foundry Society, March 28, 2001. *http://yosemite.epa.gov/osw/rcra.nsf/0c994248c239947e85256d090071175f/4C9A2EEE6E5F859B85256AC5004FC1C2/$file/14534.pdf*

leading to a determination of significance based on the facts of the activity. Because this factor must apply to various different recycling activities, we believe the case-by-case approach is most appropriate.

EPA, therefore, is finalizing its proposed option of using the term "significant" in 40 CFR 260.43(c)(2)(i) and (ii). Evaluating the significance of levels of hazardous constituents in products of the recycling process may involve taking into consideration several variables, such as the type of product, how it is used and by whom, whether or not the elevated levels of hazardous constituents compromise the efficacy of the product, the availability of the hazardous constituents to the environment, and others. For example, if a hazardous secondary material has been reclaimed and made into a product that will be used by children, and that product contains hazardous constituents that are not in analogous products, that product will likely need to be closely scrutinized. On the other hand, low levels of a hazardous constituent in a product from that same reclamation operation that is used as an ingredient in an industrial process or for another industrial application may not be significant and must be evaluated in the context of the product's use.

EPA provided several additional examples in implementing this factor in the October 2003 proposed rule which will be repeated here. If zinc galvanizing metal made from hazardous secondary materials that were reclaimed contains 500 parts per million (ppm) of lead, while the same zinc product made from raw materials typically contains 475 ppm, this difference in concentration would likely not be considered "significant" in the evaluation of this factor. If, on the other hand, the lead levels in the zinc product made from reclaimed hazardous secondary materials were 1,000 ppm, it may indicate that the product was being used to illegally dispose of lead and that the activity is sham recycling, unless other factors would demonstrate otherwise.

In another example, if a "virgin" solvent contains no detectable amounts of barium, while spent solvent that has been reclaimed contains a minimal amount of barium (e.g., 1 ppm), this difference might not be considered significant. If, however, the barium in the reclaimed solvent were at much higher levels (such as 50 ppm), it may indicate discard of the barium and sham recycling.

Unfortunately, because of the variety of possible recycling scenarios under the exclusions and in the non-waste determinations covered by this final rule, we cannot provide examples for how this factor might work for all possible recycling situations. The Agency stresses that the determination of legitimacy for this factor should consider both the use and the users of the product in addition to the concentration of the hazardous constituents or the presence of a hazardous characteristic, as well as other relevant information. In addition, in some cases, the implementing agency may accept a risk argument from a recycler to show that the recycling activity meets this factor. If the recycler can show that despite elevated concentrations of hazardous constituents, such constituents pose little or no risk to human health or the environment, the implementing agency may consider that as evidence that the elevated concentrations are not significant. *How consideration of economics applies to legitimacy.* Consideration of economics has long been a part of the Agency's concept of legitimacy, as is evident in the Lowrance Memo and earlier preamble text (50 FR 638, January 4, 1985 and 53 FR 522, January 8, 1988; *see also American Petroleum Institute* v. *EPA ("API II")*, 216 F.3d 50, 57–58 (DC Cir. 2000)). This final rule does not codify specific regulatory language on economics as part of the legitimacy provision, but EPA offers further guidance and clarification on how economics may be considered in making legitimacy determinations, which is similar to the preamble discussion in the March 2007 supplemental proposal.

Specifically, EPA believes that consideration of the economics of a recycling activity can be used to inform and help determine whether the recycling operation is legitimate. Positive economic factors would be a strong indication of legitimate recycling, whereas negative economic factors would be an indication that further evaluation of the recycling operation may be warranted in assessing the legitimacy factors.

Considering the economics of a recycling activity can also inform whether the hazardous secondary material inputs provide a useful contribution and whether the product of recycling is of value. Economic information that may be useful could include (1) the amount paid or revenue generated by the recycler for recycling hazardous secondary materials; (2) the revenue generated from the sale of recycled products; (3) the future cost of processing existing inventories of hazardous secondary materials; and (4) other costs and revenues associated with the recycling operation. The economics of the recycling transaction may be more of an issue when hazardous secondary materials are sent to a third-party recycler, but even when the hazardous secondary materials are recycled under the control of the generator, the generator must still show that the hazardous secondary materials are, at a minimum, providing a useful contribution and producing a valuable product.

Useful Economic Information

(1) The amount paid or revenue generated by the recycler for recycling hazardous secondary materials is one example of how economic information can help support a legitimacy determination. We have three primary illustrations to exemplify this. First, the basic economic flows can suggest whether the recycling operation will process inputs, including hazardous secondary materials, and produce products over a reasonable period of time, recognizing that there will be lean and slow times. A general accounting of the major costs, revenues, and economic flows for a recycling operation over a reasonable period of time can provide information for considering whether recycling is likely to continue at a reasonable rate, compared to the rate at which inputs are received, or whether it is likely that significant amounts of hazardous secondary materials would be accumulated and then abandoned when the facility closes. Any bona fide sources of revenues would be included in this consideration, such as payments by generators to recyclers for accepting hazardous secondary materials and subsidies supporting recycling. However, in order to have some level of confidence that beneficial products are or will be produced over a reasonable timeframe, we believe that at least some portion of the revenues should be from product sales (or savings due to avoided purchases of products if the hazardous secondary materials are used directly by the recycler). This is consistent with the factor requiring that the hazardous secondary material must be recycled to make a valuable product or intermediate.

Two scenarios illustrate this first example: A recycling operation that generates revenues from the sale of recycled products that greatly exceed the costs of the operation is an indication of a process that turns the hazardous secondary materials into useful products, and is unlikely to over accumulate them. A very different example is an operation that has, relative to its revenues, large inventories of unsold product and large future liabilities in terms of stocks of

unprocessed hazardous secondary materials. This operation could potentially fail the "useful contribution" and "produces a valuable product or intermediate" legitimacy factors, and would draw closer attention to determine whether it is engaged in treatment and/or abandonment in the guise of recycling.

Second, when the economics of a recycling operation that uses hazardous secondary materials to produce and sell final products are similar to a manufacturing operation using raw materials to produce and sell final products, we believe that such an operation is likely to be legitimate. For instance, if the recycler pays for hazardous secondary materials as a manufacturer would pay for raw materials, the recycler sells products from the recycling process as a manufacturer would sell products from manufacturing, and the revenues generated equal or exceed costs, then the hazardous secondary materials appear to be valuable (i.e., the recycler is willing to pay for them) and appear to make a useful contribution to a valuable recycled product.

However, we also recognize that the economics of many legitimate recycling operations that utilize hazardous secondary materials differ from the economics of more traditional manufacturing operations. For example, many recyclers are paid by generators to accept hazardous secondary materials. Generators may be willing to pay recyclers because generators can save money if the recycling is less expensive than disposing of the hazardous secondary materials in landfills or incinerators. Also, some recyclers receive subsidies that may be designed to develop recycling infrastructure and markets or to achieve other benefits of recycling. For instance, the recycling of electronic materials can be legitimate even when the recycler is subsidized for processing the material.

Third, any analysis of the economics of a recycling operation should recognize that a recycler may be able to charge generators and still be a legitimate recycling operation. Because these hazardous secondary materials are hazardous wastes if disposed of, typically the generators' other alternative management option already carries a cost that is based on the existing market for hazardous waste transportation, treatment, and disposal. Hence, unless there is strong competition in recycling markets or the hazardous secondary materials are extremely valuable, a recycler may be able to charge generators simply because alternative disposal options cost more.

Recognizing that such a dynamic exists can assist those making legitimacy determinations in evaluating recycling operations. For example, if a recycler is charging generators fees (or receiving subsidies from elsewhere) for taking hazardous secondary materials and receives a far greater proportion of its revenue from acceptance of the fees than from the sale of its products, both the useful contribution and the valuable product factors may warrant further review, unless other information would indicate that such recycling is legitimate. Fees and subsidies may indicate that the economic situation allows the recycler to charge high fees, regardless of the contribution provided by the inputs, including hazardous secondary materials. In this situation, recyclers may also have an increased economic incentive to over-accumulate or overuse hazardous secondary materials or to manage them less carefully than one might manage more valuable inputs. Additionally, if there is little competition in the recycling market, and/or if acceptance fees seem to be set largely to compete with the relative costs of alternative disposal options rather than to reflect the quality or usefulness of the input to the recycling operation, this may also suggest a closer look at the useful contribution factor.

(2) A comparison of revenue from sales of recycled products to payments by generators is another example of how economic information can help support an evaluation of "valuable product." It is possible that product sales revenues could be dwarfed by the acceptance of fees because markets for particular products are highly competitive or because high alternative disposal costs allow for high acceptance fees. However, relatively low sales revenues could also require a review of other factors, such as whether product sales prices are lower than other comparable products, products are being stockpiled rather than sold, or very little product is being produced relative to the amount of inputs to the recycling operation. These indicators may suggest that the product of the recycling process is not valuable and, thus, sham recycling may be occurring.

(3) A consideration of the future cost of processing or alternatively managing existing inventories of hazardous secondary material inputs is another example of how economic information can inform a legitimacy determination. When hazardous secondary materials make a significant useful contribution to the recycling process, a recycler will have an economic incentive to process the input materials relatively quickly and efficiently, rather than to maintain large inventories. While recyclers often need to acquire sufficient amounts of hazardous secondary materials to make it economically feasible to recycle them, there should be little economic incentive to over-accumulate such materials that make a useful contribution. Overly large accumulations of input materials may indicate that the hazardous secondary materials are not providing a useful contribution or that the recycler is increasing its future costs of either processing or disposing of the material, and may be faced with an unsound recycling operation in the future. However, it is important to keep in mind that possible explanations for this may exist. For example, the recycler may have acquired a large stock of hazardous secondary materials because the price was unusually low or perhaps the hazardous secondary materials are generated episodically and the recycler has few opportunities to acquire them.

(4) An analysis of costs and revenues specific to on-site recycling is an additional, albeit specific, example of economic information to consider. When recycling is conducted under the control of the generator, the recycler may not account formally for some of the costs and savings of the operation. Still, when deciding whether to undertake or continue the recycling operation or to utilize alternative outside recycling or disposal options, the on-site recycler (under the control of the generator) will evaluate the basic economic factors as a part of doing business. One such factor could be an accounting of the costs of virgin materials avoided by using hazardous secondary materials. Similarly, sales of recycled products under the control of the generator that are sold to an external market may support the valuable product criterion.

3. Legitimacy Policy for Other Exclusions and Exemptions

EPA is codifying a legitimacy provision in this final rule as part of the final exclusions and non-waste determinations, but stresses that EPA retains its long-standing policy that all recycling of hazardous secondary materials must be legitimate. If a facility is engaged in sham recycling, this, by definition, is not real recycling and that material is being discarded. The legitimacy policy continues to apply to all hazardous secondary materials that are excluded or exempted from Subtitle C regulation because they are recycled and to recyclable hazardous wastes that remain subject to the hazardous waste regulations. This policy is well-

understood throughout the regulated community and among the state implementing agencies.

EPA believes that the four legitimacy factors being codified in 40 CFR 260.43 are substantively the same as the existing legitimacy policy. These factors are a simplification and clarification of the policy statements in the 1989 Lowrance Memo and in various Definition of Solid Waste **Federal Register** notices.

Nonetheless, to avoid confusion among the regulated community and state and other implementing regulatory agencies about the status of recycling under the existing exclusions, the Agency has decided not to codify the legitimacy factors for existing exclusions and, thus, states and other implementing agencies will continue to apply the existing legitimacy policy to all recycling as they have in the past in order to ensure that recycling is real and not a sham. The legitimacy provisions of the final rule are codified only for the exclusions and non-waste determinations being promulgated today. In developing the codified legitimacy language, we did not intend to raise questions about the status of legitimacy determinations that underlie existing exclusions from the definition of solid waste, or about case-specific determinations that have been made by EPA or the states. Current exclusions and other prior solid waste determinations or variances, including determinations made in letters of interpretation and inspection reports, remain in effect.

A number of commenters raised concerns with the application of the codified legitimacy factors to these existing waste-specific and industry-specific exclusions. In particular, as we noted in the October 2003 proposal, EPA has examined in depth a number of waste-specific and industry-specific recycling activities and has promulgated specific regulatory exclusions or provisions that address the legitimacy of these practices in much more specific terms than the general factors being finalized as part of the exclusions and non-waste determination process today. One example is the regulation for zinc fertilizers made from recycled hazardous secondary materials. In the zinc fertilizer regulation, among the requirements established by EPA are specific numerical limits on five heavy metal contaminants and dioxins in the zinc fertilizer product exclusion at 40 CFR 261.4(a)(21). Other examples are shredded circuit boards excluded under 40 CFR 261.4(a)(14), which must be free of mercury switches, mercury relays and nickel-cadmium and lithium batteries, and comparable fuels excluded under 40 CFR 261.4(a)(16), which must meet specific levels for hazardous constituents. The conditions developed for the recycling exclusions in § 261.4(a) were found to be necessary under material-specific rulemakings that determined when the particular hazardous secondary material in question is not a solid waste. When EPA originally made the decision that these materials are not solid waste, the Agency took into account the relevant factors about the hazardous secondary materials, including how the material was managed and what toxic chemicals were present. By limiting the codified legitimacy provision to the exclusions and non-waste determinations in today's final rule, EPA is avoiding any implication that we are revisiting these determinations.

However, at the same time, these material-specific exclusions from the definition of solid waste do not negate the basic requirement that the hazardous secondary material must be "legitimately" recycled. Recycling that is not legitimate is not recycling at all, but rather "sham recycling"—discard in the guise of recycling.

For example, under EPA's historic guidance, particularly questions (1) and (3) in OSWER Directive 9441.1989(19), the "Lowrance Memo," a facility could not plausibly claim the zinc fertilizer product exclusion at 40 CFR 261.4(a)(21) for a hazardous secondary material that contained absolutely no or minimal levels of zinc, even if all the conditions of the zinc fertilizer exclusion were met. The exclusion was developed to encourage legitimate recycling of zinc-containing hazardous secondary materials, not to allow any hazardous waste to be discarded to purported fertilizer in the name of recycling when the hazardous secondary material provided no recognizable benefit to the product.

Similarly, if a facility accepted zinc-containing hazardous waste, claiming to make zinc fertilizer, but failed to produce a product that was actually sold or was otherwise valuable, such a process would not be legitimate recycling (under question (4) of the Lowrance Memo in the historic legitimacy guidance), even if the management conditions or the constituent levels in the zinc fertilizer exclusion were met. The consequences of the latter example are illustrated in one of the damage cases in the environmental problems study. A facility whose primary business was mixing electric arc furnace dust (K061) with agricultural lime for sale as a micronutrient lost its customers and could not sell its product. However, the facility continued to accept EPA Hazardous Waste K061, and, in approximately seven months, the facility had accepted over 60,000 tons of this hazardous waste and stored it on the ground in piles up to 30 feet high, with no prospect of it being used to produce a product and, thus, legitimately recycled. While the initial recycling of the K061 hazardous waste was legitimate, when the facility failed to produce a product that was actually sold, the K061 could no longer be considered legitimately recycled.

In summary, all hazardous secondary materials recycling and hazardous waste recycling, whether such recycling remains under hazardous waste regulations or is excluded from the definition of solid waste, must be legitimate. This has been our long-standing policy and it is well understood throughout the regulated community and the implementing state regulatory agencies. In order to be clear that the legitimacy provision codified at 40 CFR 260.43 under today's final rule would not affect how the current legitimacy policy applies to recycling under existing exclusions, the legitimacy provision at 40 CFR 260.43 is explicitly designated as applying only to the exclusions and non-waste determinations being finalized in today's rule.

EPA also maintains that the legitimacy provision being finalized as part of the exclusions and non-waste determinations is substantively the same as existing policy because we developed the legitimacy factors in 40 CFR 260.43 by closely examining the questions and sub-questions in the Lowrance Memo and in the **Federal Register** preambles and converting them into four more direct questions. The following explanations show how each of the four factors is derived from the Lowrance Memo and other existing policy statements.

Factor 1—The Hazardous Secondary Material Provides a Useful Contribution

Relevant Lowrance Memo Questions

(1) Is the secondary material similar to an analogous raw material or product?

Is much more of the secondary material used as compared with the analogous raw material/product it replaces? Is only a nominal amount of it used?

Is the secondary material as effective as the raw material or product is replaces?

(3) What is the value of the secondary material?

Is it listed in industry news letters, trade journals, etc.?

Does the secondary material have economic value comparable to the raw material that normally enters the process?

Discussion

The factor addressing "useful contribution" has been distilled from and clarifies concepts in the Agency's existing policy for legitimate recycling. For example, the preamble to the January 4, 1985, recycling regulations noted that if a hazardous secondary material is "ineffective or only marginally effective for the claimed use, the activity is not recycling but surrogate disposal." Similarly, the January 8, 1988, proposed rule discussed "how much energy or material value each waste contributes to the recycling purpose."

In the 1989 Lowrance Memo, the issue of effectiveness was addressed by the following questions: "Is much more of the secondary material used as compared with the analogous raw material/product it replaces?"; "Is only a nominal amount used?"; and "Is the secondary material as effective as the raw material or product it replaces?" The memo also addressed the value of the secondary material by asking, "Is [the secondary material] listed in industry news letters, trade journals, etc.?" and "Does the secondary material have economic value comparable to the raw material that normally enters the process?"

Factor 1 takes these broad concepts of effectiveness and value and turns them into the requirement that the hazardous secondary material in the process must provide a "useful contribution" to the recycling process, that is, it must actually be adding something to the process into which they are being put. The factor provides more specifics than the Memo or preamble by providing a list of ways that a hazardous secondary material could provide that useful contribution to the process. EPA requested comment on other ways in which a hazardous secondary material might provide a useful contribution, but did not receive any from commenters.

Factor 2—The Recycling Process Produces a Valuable Product or Intermediate

Relevant Lowrance Memo Questions

(4) Is there a guaranteed market for the end product?

Is there a contract in place to purchase the "product" ostensibly produced from the hazardous secondary materials?

If the type of recycling is reclamation, is the product used by the reclaimer? The generator? Is there a batch tolling agreement? (Note that since reclaimers are normally TSDFs, assuming they store before reclaiming, reclamation facilities present fewer possibilities of systemic abuse).

Is the reclaimed product a recognized commodity?

Are there industry-recognized quality specifications for the product?

Discussion

Factor 2 distills several of the questions posed by the 1989 legitimacy memo. The memo addressed the value of recycled products sold to third parties by posing the questions, "Is there a guaranteed market for the end product?" and "Is there a contract in place to purchase the "product" ostensibly produced from the hazardous secondary materials?" The memo addressed the value of recycled products used by the recycler or the generator as process ingredients by posing the questions, "Is the product used by the (recycler)? The generator? Is there a batch tolling agreement?" The "usefulness" of a recycled material was addressed by posing the questions, "Is the (recycled) product a recognized commodity?" and "Are there industry-recognized quality specifications for the product?"

The language of the factors in the legitimacy provision in the final rule reflects these concepts in a concrete manner by, for example, making it clear that the indicator of legitimacy is that a recycling process results in a valuable product or intermediate and that the product or intermediate is valuable if it is "(i) sold to a third party or (ii) used by the recycler or the generator as an effective substitute for a commercial product or as an ingredient or intermediate in an industrial process."

The Lowrance Memo posed additional questions aimed at distinguishing recycling operations that involve direct use or reuse of secondary materials from recycling operations that involve reclamation. These concepts, however, are not particularly relevant to distinguishing legitimate from sham recycling and are not generally used by implementing agencies in legitimacy analyses, so we therefore did not attempt to capture them in the codified regulatory text.

Factor 3—Managed as a Valuable Commodity

Relevant Lowrance Memo Questions

(5) Is the secondary material handled in a manner consistent with the raw material/product it replaces?

Is the secondary material stored in a similar manner as the analogous raw material (*i.e.*, to prevent loss?)

Are adequate records regarding the recycling transactions kept?

Do the companies involved have a history of mismanagement of hazardous wastes?

Discussion

Although worded somewhat differently, this factor is essentially the same as the fifth question in the Lowrance Memo. Similarly, the 1985 preamble asked whether recyclable hazardous secondary materials were "handled in a manner consistent with their use as raw materials or commercial product substitutes."

In one respect, however, Factor 3 is less restrictive than the Lowrance Memo—the memo posed an additional question, "Is the secondary material stored on the land?" This could be read as implying that storage on the land is an indication of sham recycling. Of course, this question is just one of the more than two dozen questions from the Lowrance memo, that, when taken as a whole, help draw the distinction between legitimate recycling and sham recycling. Also, the Agency is aware of situations where storage of raw materials on the land is a normal part of the manufacturing process. Thus, Factor 3 does not identify land storage as a specific indicator of sham recycling.

Factor 4—The Product Does Not Contain Significant TARs

Relevant Lowrance Memo Questions

(1) Is the secondary material similar to an analogous raw material or product?

Does it contain Appendix VIII constituents not found in the analogous raw material/product (or at higher levels)?

Does it exhibit hazardous characteristics that the analogous raw material/product would not?

Does it contain levels of recoverable material similar to the analogous raw material/product?

(6) Other Relevant Factors

Are the toxic constituents actually necessary (or of sufficient use) to the product or are they just "along for the ride"?

Discussion

The Lowrance Memo and the definition of solid waste preamble statements from which it was developed have addressed the question of "toxics along for the ride" in a slightly different way than the factor in the final rule. The Lowrance Memo, for example, allows for examination of toxic constituents in the hazardous secondary material destined for recycling and/or in the recycled product. As noted above, Factor 4 is intended to primarily address the question of "toxics along for the ride" in the products of recycling. We believe that the presence of toxic constituents in recyclable hazardous secondary materials is less relevant to assessing the legitimacy of recycling, primarily because much if not most recycling (as well as manufacturing) involves removing or destroying such harmful materials. As reflected in the factor, the central question is whether or not (and in what amount) hazardous constituents pass through the recycling process and become incorporated into the products of recycling. While some may argue that the approach of focusing on toxic constituents in recycled products may be somewhat less restrictive than the policy it would replace, we believe it is a better indicator of legitimate recycling. In cases where a recycler would prefer to compare the virgin feedstock to the hazardous secondary material going into the process, the rule makes it clear that this would be an adequate stand-in for the comparison described in the regulatory text.

Lowrance Memo Questions Not Covered in Factors

A few of the questions from the Lowrance Memo are not covered by the factors in the regulatory text for the legitimacy provision in § 260.43. The above discussions address why EPA believes this is appropriate. In the case of the role economics can play in a legitimacy determination, this preamble has discussed how it can inform an overall legitimacy determination, but there is no particular factor on economics.

Relevant Lowrance Memo Questions

(2) What degree of processing is required to produce a finished product?

Can the secondary material be fed directly into the process (*i.e.*, direct use) or is reclamation (or pretreatment) required?

How much value does final reclamation add?

Is the secondary material stored on the land? (a sub-question of (5) Is the secondary material handled in a manner consistent with the raw material/product it replaces?)

(6) Other Relevant Factors

What are the economics of the recycling process? Does most of the revenue come from charging generators for managing their wastes or from the sale of the product?

For the reasons outlined above, EPA believes that the legitimacy factors in 260.43 are equivalent to the existing legitimacy policy that applies to all recycling.

X. Non-Waste Determination Process

A. What Is the Purpose of This Provision?

The purpose of the non-waste determination process is to provide persons with an administrative procedure for receiving a formal determination that their hazardous secondary materials are not discarded and, therefore, are not solid wastes when recycled. This process is available in addition to the solid waste exclusions in today's rule. Once a non-waste determination has been granted, the hazardous secondary material is not subject to the limitations and conditions discussed elsewhere in today's rule (*e.g.*, prohibition on speculative accumulation, storage standard, or, for the transfer-based exclusion, recordkeeping, reasonable efforts, financial assurance, and export notice and consent); however, the regulatory authority may specify that a hazardous secondary material meet certain conditions and limitations as part of the non-waste determination.

The non-waste determination process is voluntary. Facilities may choose to continue to use the self-implementing portions of any applicable waste exclusions and, for the vast majority of cases, where the regulatory status of the hazardous secondary material is evident, self-implementation will still be the most appropriate approach. In addition, facilities may continue to contact EPA or the authorized state to ask for informal assistance in making these types of non-waste determinations. However, for cases where there is ambiguity about whether a hazardous secondary material is a solid waste, today's formal process can provide regulatory certainty for both the facility and the implementing agency.

EPA is finalizing two types of non-waste determinations: [12] (1) A determination for hazardous secondary materials reclaimed in a continuous industrial process; and (2) a determination for hazardous secondary materials indistinguishable in all relevant aspects from a product or intermediate. The process for applying for a non-waste determination is found at 40 CFR 260.34.

The Agency confirms today's process for non-waste determinations is not intended to affect any existing exclusion under 40 CFR 261.4. The process is also not intended to affect any variance already granted under 40 CFR 260.30 or other EPA or authorized state determination. In other words, generators or reclaimers operating under an existing exclusion, variance, or other EPA, or authorized state, determination do not need to apply for a formal non-waste determination under today's rule. This process also does not affect the authority of EPA or an authorized state to revisit past determinations according to appropriate procedures, if they so choose.

B. Scope and Applicability

Hazardous secondary materials presented for a non-waste determination must be legitimately recycled and, therefore, must meet the legitimacy factors under 40 CFR 260.43 of today's rule. For further discussion of legitimacy and the factors to be considered, see section IX of today's preamble.

In addition, today's rule limits non-waste determinations to reclamation activities and does not apply to recycling of "inherently waste-like" materials (40 CFR 261.2(d)); recycling of materials that are "used in a manner constituting disposal," or "used to produce products that are applied to or placed on the land" (40 CFR 261.2(c)(1)); or for "burning of materials for energy recovery" or materials "used to produce a fuel or otherwise contained in fuels" (40 CFR 261.2(c)(2)). Today's rule does not affect how these recycling practices are regulated.

C. Types of Non-Waste Determinations

1. Non-Waste Determination for Hazardous Secondary Materials Reclaimed in a Continuous Industrial Process

As discussed earlier in today's preamble, previous court decisions have indicated that hazardous secondary

[12] In the March 2007 supplemental proposal, EPA also proposed (but is not finalizing) a third type of non-waste determination for hazardous secondary materials reclaimed under the control of the generator via a tolling arrangement or similar contractual arrangement. EPA, however, did not identify any comments that described specific types of contractual arrangements that would meet the proposed criteria for this non-waste determination. See section XIX for more information.

materials that are reclaimed in a continuous industrial process are not discarded and, therefore, not a solid waste. EPA believes, in most instances, hazardous secondary materials reclaimed in a continuous process would be excluded under today's self-implementing exclusions. However, production processes can vary widely from industry to industry and it is possible that the regulatory status of certain materials may be unclear under a self-implementing exclusion (including those exclusions finalized today). Thus, to determine whether individual hazardous secondary materials are reclaimed in a continuous industrial process, and, therefore, not a solid waste, EPA has developed the non-waste determination process to evaluate case-specific fact patterns.

EPA is finalizing four criteria for making the non-waste determination for hazardous secondary materials reclaimed in a continuous industrial process. The first is the extent that the management of the hazardous secondary material is part of the continuous production process and is not waste treatment. At one end of the spectrum, if the hazardous secondary material is handled in a manner identical to virgin feedstock, then it would appear to be fully integrated into the production process. At the other end of the spectrum, hazardous secondary materials that are indisputably discarded prior to being reclaimed are not a part of the continuous primary production process, (*"AMC II"*), 907 F. 2d 1179 (DC Cir. 1990) (listed wastes managed in units that are part of wastewater treatment units are discarded materials (and solid wastes), especially where it is not clear that the industry actually reuses the materials). For cases that lie within the spectrum, persons applying for a non-waste determination need to provide sufficient information about the production process to demonstrate that the management of the hazardous secondary material is an integral part of the production process and is not waste treatment. It is important to note that this non-waste determination is not necessarily limited to cases under the control of the generator. For example, hazardous secondary materials that are hard piped from one facility to another facility that is under separate control would appear to be fully integrated into the production process and may therefore be eligible for this non-waste determination, provided the other criteria are met.

The second criterion examined under this non-waste determination is the capacity of the production process to use the hazardous secondary material in a reasonable time frame and ensure that it will not be abandoned. This criterion can be satisfied by a consideration of past practices, market factors, the nature of the hazardous secondary material, or any contractual arrangements. Abandonment of stockpiled hazardous secondary materials is one way that discard can occur at recycling operations and is one of the major causes of environmental problems. As indicated in the recycling studies, 69 of the 208 incidents of environmental damage involve abandonment of the hazardous secondary materials as the primary cause of damage. For today's self-implementing exclusions for hazardous secondary materials, EPA is using speculative accumulation (as defined in 40 CFR 261.1(c)(8)) as the method for determining when a hazardous secondary material is discarded by abandonment. For the non-waste determination, a person does not need to demonstrate that the hazardous secondary material meets the speculative accumulation limits per 40 CFR 261.1(c)(8), but he must provide sufficient information about the hazardous secondary material and the process to demonstrate that the hazardous secondary material will in fact be reclaimed in a reasonable time frame and will not be abandoned. EPA is not explicitly defining "reasonable time frame" because such time frames could vary according to the hazardous secondary material and industry involved and, therefore, determining this time frame should be made on a case-specific basis. However, a person may still choose to use the speculative accumulation time frame as a default.

The third criterion for this non-waste determination is whether the hazardous constituents in the hazardous secondary material are reclaimed rather than released to the air, land, or water at significantly higher concentrations from either a statistical or from a health and environmental risk perspective than would otherwise be released by the production process. To the extent that the hazardous constituents are an extension of the original hazardous secondary material, their release to the environment is an indicator of discard. The Agency recognizes that normal production processes may also result in a certain level of releases and, in evaluating this criteria, would not deny a non-waste determination if the increase in releases is not significantly different from either a statistical or risk perspective. However, when unacceptably high levels of the hazardous constituents in the hazardous secondary material are released to the environment rather than reclaimed, then that material (or at least the portion of the material that is of most concern) is not in fact being "reclaimed in a continuous industrial process."

The fourth and final criterion for this non-waste determination includes any other relevant factors that demonstrate the hazardous secondary material is not discarded. This catch-all criterion is intended to allow the person to provide any case-specific information deemed important and relevant in making the case that the hazardous secondary material is not discarded and, therefore, not a solid waste.

2. Non-Waste Determination for Hazardous Secondary Materials Indistinguishable in All Relevant Aspects From a Product or Intermediate

Although the courts have indicated that hazardous secondary materials recycled within a continuous industrial process are not discarded and, therefore, are not solid wastes, they have also said that hazardous secondary materials destined for recycling in another industry are not automatically discarded. However, there may be some situations where the regulatory status of a certain material is unclear under a self-implementing exclusion and thus may benefit from a non-waste determination that evaluates case-specific fact patterns. EPA is finalizing five criteria for making a non-waste determination for hazardous secondary materials indistinguishable in all relevant aspects from a product or intermediate.

The first criterion for this non-waste determination is consideration of likely markets for the hazardous secondary material (e.g., based on the current positive value of the hazardous secondary material, stability of demand, and any contractual arrangements). This evaluation of market participation is a key element for determining whether companies view these hazardous secondary materials like products rather than negatively-valued wastes. EPA's market forces study on how market incentives affect the management of hazardous secondary materials indicates that both high value and stable markets are strong incentives to refrain from over-accumulating hazardous secondary materials, thus maximizing the likelihood that the hazardous secondary materials will be reclaimed and not abandoned.

The second criterion for this non-waste determination is the chemical and physical identity of the hazardous secondary material and whether it is comparable to commercial products or

intermediates. This "identity principle" is a second key factor that the Court in Safe Foods found useful in determining whether a material is indistinguishable from a product. It is important to note that the identity of a material can be comparable to a product without being identical. However, to qualify for a non-waste determination, any differences between the hazardous secondary material in question and commercial products or intermediates should not be significant from either a statistical or from a health and environmental risk perspective.

The third criterion for making this non-waste determination is the capacity of the market to use the hazardous secondary material in a reasonable time frame and ensure that it will not be abandoned. Abandonment of stockpiled hazardous secondary materials is one way that discard can occur at recycling operations and is one of the major causes of environmental problems (a key finding from the recycling studies discussed earlier). For today's self-implementing exclusions for hazardous secondary materials, EPA is using speculative accumulation (as defined in 40 CFR 261.1(c)(8)) as the method for determining when a hazardous secondary material is discarded by abandonment. For the non-waste determination, a person does not need to demonstrate that the hazardous secondary material meets the speculative accumulation limits per 40 CFR 261.1(c)(8), but he must provide sufficient information about the hazardous secondary material and the market demand for it to demonstrate that the hazardous secondary material will in fact be reclaimed in a reasonable time frame and will not be abandoned. EPA is not explicitly defining "reasonable time frame" because such time frames could vary according to the hazardous secondary material and industry involved, and therefore determining this time frame should be made on a case-specific basis. However, a person may still choose to use the speculative accumulation time frame as a default.

The fourth criterion for this non-waste determination is whether the hazardous constituents in the hazardous secondary materials are reclaimed rather than released to the air, land, or water at significantly higher concentrations from either a statistical or from a health and environmental risk perspective than would otherwise be released by the production process. The Agency believes that to the extent that the hazardous constituents are an extension of the original hazardous secondary material, their release to the environment is a possible indicator of discard. The Agency recognizes that normal production processes also result in a certain level of releases and, in evaluating this criteria, would not deny a non-waste determination if the increase in releases is not significant from either a statistical or a health and environmental risk perspective. However, when unacceptably high levels of the hazardous constituents in the hazardous secondary material are released to the environment rather than reclaimed, then that material (or at least the portion of the hazardous secondary material that is of most concern) is not being handled as a commercial product or intermediate.

As with the non-waste determination for hazardous secondary materials reclaimed in a continuous industrial process, the fifth and final criterion for this non-waste determination includes any other relevant factors that demonstrate the hazardous secondary material is not discarded. This catch-all criterion is intended to allow the person to provide any case-specific information it deems important and relevant in making the case that its hazardous secondary material is not discarded.

D. Non-Waste Determination Process

The process for the non-waste determination is the same as that for the solid waste variances found in 40 CFR 260.30. In order to obtain a non-waste determination, a facility that manages hazardous secondary materials that would otherwise be regulated under 40 CFR part 261 as either a solid waste or an excluded waste must apply to the Administrator or the authorized state per the procedures described in 40 CFR 260.33, which EPA is amending today to apply to non-waste determinations. The application must address the relevant criteria discussed in detail above. The Administrator will evaluate the submission and issue a draft notice tentatively granting or denying the application. Notification of this tentative decision will be provided by newspaper advertisement or radio broadcast in the locality where the facility is located. The Administrator will accept comment on the tentative decision for 30 days, and may also hold a public hearing. The Administrator will issue a final decision after receipt of comments and after the hearing (if held). If the application is denied, the facility may still pursue a solid waste variance or exclusion (for example, one of the solid waste variances under 40 CFR 260.30 or solid waste exclusions under 40 CFR 261.4).

After a formal non-waste determination has been granted, if a change occurs that affects how a hazardous secondary material meets the relevant criteria contained in 40 CFR 260.34, persons must re-apply to the Administrator for a formal determination that the hazardous secondary material continues to meet the relevant criteria and is not discarded and not a solid waste.

As discussed in more detail in section XX of today's preamble, under section 3006 of RCRA, EPA would authorize states to administer the non-waste determinations as part of their base RCRA program. Because states are not required to implement federal requirements that are less stringent or narrower in scope than the current requirements, authorized states are not required to adopt the non-waste determination process. Ordinarily this provision could not go into effect in an authorized state until the state chooses to adopt it. However, because the non-waste determination process is a formalization of determinations that states may already perform, states that have not formally adopted this non-waste determination process may participate if the following conditions are met: (1) The state determines that the hazardous secondary material meets the criteria in either paragraph (b) or (c) of 40 CFR 260.34; (2) the state requests EPA to review its determination; and (3) EPA approves the state determination. In addition, of course, states may continue to make regulatory determinations under their authorized state regulations, as they do now.

E. Enforcement

If a regulatory authority determines that a hazardous secondary material is not a solid waste through the non-waste determination process, the hazardous secondary material is not subject to the RCRA Subtitle C hazardous waste requirements. However, as part of this process, the applicant has an obligation to submit, to the best of his ability, complete and accurate information. If the information in the application is found to be incomplete or inaccurate and, as a result, the hazardous secondary material does not meet the criteria for a non-waste determination, then the material may be subject to the RCRA Subtitle C requirements and EPA or the authorized state could choose to bring an enforcement action under RCRA section 3008(a). Moreover, if the person submitting the non-waste determination is found to have knowingly submitted false information, then he also may be subject to criminal penalties under RCRA section 3008(d).

Once a non-waste determination has been granted, the applicant is obligated

to ensure the hazardous secondary material continues to meet the criteria of the non-waste determination, including any conditions specified therein by the regulatory authority. If a change occurs that affects how a hazardous secondary material meets the relevant criteria and (if applicable) any conditions as specified by the regulatory authority and the applicant fails to re-apply to the Administrator for a formal determination, the hazardous secondary material may be determined to be a solid and hazardous waste and subject to the RCRA Subtitle C hazardous waste requirements.

XI. Effect on Other Exclusions

The final rule will not supersede any of the current exclusions or other prior solid waste determinations or variances, including determinations made in letters of interpretation and inspection reports. If a hazardous secondary material has been determined not to be a solid waste, for whatever reason, such a determination will remain in effect, unless the regulatory agency decides to revisit the regulatory determination under their current authority. In addition, if a hazardous secondary material has been excluded from hazardous waste regulations—for example, under the Bevill exclusion in 40 CFR 261.4(b)(7)—the regulatory status of that material will not be affected by today's rule.

In the October 2003 proposal, EPA proposed a number of specific "conforming changes" to existing exclusions (68 FR 61578–61580). The purpose of these conforming changes was to simplify and clarify the regulations. EPA did not intend to make any substantive changes as to how currently excluded materials would need to be managed or regulated. However, comments to the proposed changes were overwhelming in favor of retaining the existing exclusions. These existing exclusions are familiar to both the states and the regulated community, and making wholesale adjustments, it appears, would have had unintended consequences in many cases.

Thus, in the March 2007 supplemental proposal, we proposed to retain the existing exclusions exactly as written (72 FR 14205). In addition, recycling of such hazardous secondary materials at new facilities, or at existing facilities that are not currently operating under the terms of an existing exclusion, would also be subject to the existing applicable regulatory exclusions, rather than the proposed exclusions.

We did request comment, however, on the option of allowing a regulated entity to choose which exclusion it is subject to in those cases where more than one exclusion could apply and, if so, whether that entity should be required to document the choice made. One state supported allowing a regulated entity to choose if that entity documents its choice and the few comments that were submitted by industry on this matter, generally, preferred to have the option to choose which exclusion they would be subject to. EPA has determined, however, that the conditions that were developed for the existing exclusions were found to be necessary under case-specific rulemakings that determined when the hazardous secondary material in question is not a solid waste. For example, broken cathode ray tubes must be transported in closed containers (40 CFR 261.4(a)(22)) and shredded circuit boards need to be free of mercury switches and relays (40 CFR 261.4(a)(14)).

Therefore, the final rule requires that hazardous secondary materials specifically subject to the existing exclusions must continue to meet the existing conditions or requirements in order to be excluded from the definition of solid waste. Moreover, industry and the states are familiar with these requirements and EPA believes that changing them would only lead to confusion in the regulated community. In addition, the current exclusions would apply to facilities not currently operating under terms of an existing exclusion. They would also be subject to the conditions for that exclusion if they decide to recycle the particular excluded wastes in the future.

In the March 2007 supplemental proposal, we also requested comment on whether any specific regulatory exclusion would need revision in order to avoid confusion or contradictions. With a few exceptions, public comments did not discuss this issue in depth. Only three states commented on this issue. One supported the requirement that currently-excluded facilities must stay under their specific exclusions and two requested clarifications on how such a requirement would be implemented. Industry, in a few cases, had specific comments on the provisions already in place.

One commenter asked that EPA clarify that wood preserving waste be allowed to be reclaimed off-site under the new exclusion. This would be an expansion of the existing exclusion, which is limited to on-site reuse. Another comment was in regards to whether hazardous secondary materials currently regulated under the closed-loop exclusion would be eligible for the new exclusions that do not require closed-loop operations. The third comment, from both reclaimers of spent lead-acid batteries and spent lead-acid battery manufacturers requested that EPA clarify that spent lead-acid battery recycling continue to be regulated under 40 CFR 266.80 or as a universal waste at 40 CFR part 273. The mining industry requested that EPA clarify that the proposed exclusions would have "no impact" on 40 CFR 266.70 (precious metals exclusion) and 40 CFR 266.100(d) and (g) (conditional exclusions from boiler and industrial furnace (BIF) regulations for "smelting, melting, and refining furnaces" and precious metals recovery furnaces).

A. Solid Waste Exclusions Found in 40 CFR 261.4(a)

Under today's final rule, if a hazardous secondary material is subject to material-specific management conditions under 40 CFR 261.4(a) when reclaimed, such a material is not eligible for the final rule exclusions. For most of the exclusions in 40 CFR 261.4(a), this provision will have no practical effect because the current exclusion either (1) has no conditions, (2) has conditions that overlap with those of the final rule exclusions (i.e., no speculative accumulation, or land disposal),[13] (3) does not involve reclamation, or (4) involves hazardous secondary materials burned for energy recovery or used in a manner constituting disposal. These include the exclusions in 40 CFR 261.4(a)(1)–(7), 40 CFR 261.4(a)(10)–(13), 40 CFR 261.4(a)(15)–(16), 40 CFR 261.4(a)(18), and 40 CFR 261.4(a)(20)–(21).

The exclusions in 40 CFR 261.4(a) that are for a specific material and include conditions that are more specific than those included for the exclusions being finalized today are those for (1) spent wood preserving solutions (40 CFR 261.4(a)(9)), (2) shredded circuit boards (40 CFR 261.4(a)(14)), (3) mineral processing spent materials (40 CFR 261.4(a)(17)), (4) spent caustic solutions from petroleum refining liquid treating processes (40 CFR 261.4(a)(19)), and (5) cathode ray tubes (40 CFR 261.4(a)(22)). For each of these cases, EPA has made a material-specific determination of

[13] "Disposal" is defined in 40 CFR 260.10 as "the discharge, deposit, injection, dumping, spilling leaking or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters." Thus a hazardous secondary material that is land disposed would presumably not meet the "contained" standard.

when such a material is not discarded and therefore not a solid waste and such a determination is more appropriately applied to these materials than the general conditions of today's final rule. The conditions of the material-specific exclusion essentially help define when that material is legitimately recycled and not discarded.

However, in the case of the spent wood preserving exclusion (40 CFR 261.4(a)(9)), EPA agrees with the comments that this exclusion is limited to on-site recycling. Thus, if managed on-site, these materials would need to comply with the existing conditions to be eligible for an exclusion from the definition of solid waste. However, since the current exclusion does not apply to hazardous secondary materials sent off-site, and the substance of the exclusion (i.e., drip pad requirements) applies to a management method not applicable to off-site transfers, the new exclusion in today's rule would apply to hazardous secondary materials that are sent off-site for reclamation. Thus, if sent off-site for legitimate reclamation, these materials could be eligible for today's exclusion if the restrictions and/or the conditions are met.

Finally, the closed-loop exclusion 40 CFR 261.4(a)(8) is not specific to a material, but rather identifies a recycling process. EPA agrees with comments stating that hazardous secondary materials recycled via the closed-loop exclusion at 40 CFR 261.4(a)(8) could be recycled under a different process and still be eligible for today's exclusions. The closed-loop exclusion is based on the premise that hazardous secondary materials reclaimed in a continuous process within an industry are not discarded and, therefore, are not solid wastes subject to EPA's RCRA jurisdiction (See AMC I.) In fact, closed loop recycling is a subset of materials reclaimed in a continuous industrial process, since materials may be reclaimed in a continuous process outside of a closed loop system. EPA did not make a finding that any particular hazardous secondary material must be reclaimed in a continuous process. The Agency only determined that closed-loop recycling, in general, should be excluded. Today's exclusions, however, allow any hazardous secondary materials to be excluded if reclamation meets the restrictions and/or conditions set forth in the rules. Thus, a facility currently engaged in closed-loop recycling could change their processes and still be excluded, as long as all applicable restrictions and/or conditions are met.

In addition to the solid waste exclusions currently in 40 CFR 261.4(a), EPA is planning to propose—in a separate rulemaking from today's final rule—to amend its hazardous waste regulations to conditionally exclude from the definition of solid waste spent hydrotreating and hydrorefining catalysts generated in the petroleum refining industry when these hazardous secondary materials are reclaimed (*see* entry in the *Introduction to the Fall 2007 Regulatory Plan*, 72 FR 69940, December 10, 2007). Spent hydrotreating and hydrorefining catalysts generated in the petroleum refining industry are routinely recycled by regenerating the catalyst so that it may be used again as a catalyst. When regeneration is no longer possible, these spent catalysts are either treated and disposed of as listed hazardous wastes or sent to RCRA-permitted reclamation facilities, where metals, such as vanadium, molybdenum, cobalt, and nickel are reclaimed from the spent catalysts.

EPA originally added spent hydrotreating and hydrorefining catalysts (waste codes K171 and K172) to the list of RCRA hazardous wastes found in 40 CFR 261.31 on the basis of toxicity (i.e., these materials were shown to pose unacceptable risk to human health and the environment when mismanaged) (63 FR 42110, August 6, 1998). In addition, EPA based its decision to list these materials as hazardous due to the fact that these spent catalysts can at times exhibit pyrophoric or self-heating properties.

It is largely because of these pyrophoric properties that EPA is considering a separate proposal to conditionally exempt these catalysts from hazardous waste regulation. This future proposal will allow the agency to consider and seek comment on specific conditions to address the pyrophoric properties of these hazardous secondary materials, particularly during transportation and storage prior to reclamation, in order for the Agency to determine that they are not being discarded. As a result of this separate effort, these spent catalysts will not be eligible for today's exclusions. Once EPA has proposed a conditional exclusion specifically for these spent catalysts, and after consideration of public comments, EPA will either finalize a conditional exclusion specific to these spent catalysts or may decide that the conditions being promulgated in today's final rule are fully adequate for the management of these spent catalysts when recycled, and therefore would remove the restriction preventing these spent catalysts from being eligible for today's exclusions.

B. Spent Lead-Acid Battery Recycling and Precious Metals Reclamation

EPA also agrees that spent lead-acid battery recycling should continue to be regulated under 40 CFR 266.80 or 40 CFR part 273. This is because these regulations are actually hazardous waste regulations and are not solid waste exclusions. Continuing the regulation of spent lead-acid battery (SLAB) recycling as hazardous waste is necessary due to the unique nature of these batteries. Also, as noted by the commenters, the current battery recycling regulations are working well. More than 95% of SLABs are currently recycled and generators of SLABs are exempt from Superfund liability under the Superfund Recycling Equity Act (SREA), provided that they meet the requirements of the exemption, including the requirement to take "reasonable care" to determine that the accepting facility is in compliance with the substantive environmental regulations.

Because SREA was based on the current SLAB hazardous waste regulations under RCRA, changing the regulation of SLABs could have unintended consequences. For example, the current regulations prohibit battery-breaking without a permit because such battery-breaking operations have been high-risk activities. In addition, as noted in the environmental problems study, 12% of our damage cases were from battery-breaking operations. Moreover, the high value of the lead plates and low entry cost for a battery-breaking facility provides a strong market incentive for facilities to recycle without investing in adequate management systems for the discarded battery acid and casings.

In addition, because the RCRA-regulated "generator" of a SLAB is often the garage or junkyard that removed the battery from the automobile (rather than the original owner who discarded the battery), the generator-controlled exclusion could be read to apply to these operations. Therefore, the reasonable efforts and financial assurance conditions that are a part of the transfer-based exclusion would not apply, despite the fact that their activities would resemble waste management rather than production. Because, in these cases, the SLABs have effectively already been discarded by the original owners before they enter the RCRA hazardous waste regulatory system, EPA will continue to regulate SLABs as solid and hazardous waste under 40 CFR 266.80 or 40 CFR part 273.

EPA also agrees with comments that the exclusions should have no impact on 40 CFR 266.70 (precious metals

exclusion) and 40 CFR 266.100(d) and (g) (conditional exclusions from the boiler and industrial furnace (BIF) regulations for "smelting, melting, and refining furnaces" and precious metals recovery furnaces). Because these exclusions are exclusions from certain hazardous waste regulations, not solid waste exclusions, as a general matter, EPA believes that facilities should have a choice of whether they manage their materials as hazardous waste under these exclusions or seek an exclusion from the definition of solid waste through today's final rule.

However, part of what 40 CFR 266.100(d) accomplishes is to define when an operation involving burning is solely a metals recovery operation rather than a burning for energy recovery or destruction operation, neither of which is eligible for today's exclusions. This distinction is an important one to make, and EPA did not intend to revise how such material recovery operations were identified, nor did EPA ask for comment on such a revision.

Thus, for the purpose of defining the type of burning for metals recovery to be allowed under these exclusions, EPA will reference the requirements in 40 CFR part 266 subpart H that defines when a "smelting, melting, and refining" furnace is solely engaged in metals recovery, but will not require the other conditions that are not related to distinguishing legitimate materials recovery from burning. Therefore, under today's final rule, hazardous secondary materials burned for metals recovery would still be required to meet the minimum metals and maximum toxic organic metals content specified in 40 CFR part 266 (as part of the definition of this activity), and would continue to be exempt from BIF permits, but they would not be subject to hazardous waste manifests and storage permits, as long as the conditions of the exclusions promulgated in today's rule are met.

C. Other Recycling Exclusions

For other hazardous secondary materials currently eligible for management under other exclusions or alternative regulatory structures that do not include an exclusion from the definition of solid waste (such as the universal waste regulations in 40 CFR part 273), the facility would have the choice of either continuing to manage the hazardous secondary material as a hazardous waste under the existing regulations or under today's exclusions from the definition of solid waste.

In addition, it should be noted that, for the purposes of § 261.2(a)(2)(ii) and § 261.4(a)(2)(23), when a facility collects hazardous secondary materials from other persons (for example, when mercury-containing equipment is collected through a special collection program), it is not the hazardous secondary material generator. Therefore, a universal waste handler who collects hazardous secondary materials from other persons would not be eligible for the generator-controlled exclusion, even if it would be considered a "generator" for purposes of the Universal Waste regulations.

XII. Effect on Permitted and Interim Status Facilities

A. Permitted Facilities

Facilities that currently have RCRA permits or interim status and manage hazardous wastes that are excluded under today's final rule will be affected in a number of ways, depending on the situation at the facility. At some facilities, some of the hazardous waste management units will be converted solely to manage excluded hazardous secondary materials, and other units may continue to manage hazardous wastes. At other facilities, all of the hazardous waste management units will be converted to manage wastes excluded under today's final rule. In still other cases, individual units may manage both excluded materials and hazardous wastes. In all cases, the owner or operator of the facility must comply with the applicable conditions and limitations of the exclusion (including the containment of the hazardous secondary material in units operating under the exclusion, recycling legitimately, and the prohibition against speculative accumulation of excluded hazardous secondary materials) to maintain the exclusion.

Permitted facilities that continue to manage hazardous wastes in addition to managing hazardous secondary materials excluded under this final rule must continue to maintain their Part B permits. Individual units may be converted solely to manage excluded hazardous secondary materials; however, the permit requirements applicable to the newly excluded units will remain in effect until they are removed from the permit. Owners and operators that seek to remove permit conditions applicable to units that are no longer hazardous waste management units must submit a permit modification request to the implementing agency. In the March 26, 2007, supplemental proposed rule, the Agency requested comment on requiring owners and operators seeking to modify their permits to remove units that are no longer regulated to follow the procedures of 40 CFR 270.42(a) for Class 1 permit modifications, with prior Agency approval. The Agency received few comments on this issue, and is proceeding in this final rule with the proposed approach. Thus, this final rule modifies 40 CFR 270.42 by adding an entry to Appendix 1 that classifies permit modifications to remove units that are no longer regulated as a result of this rule as Class 1 with prior Agency approval.

As was discussed in the preamble of the March 26, 2007, supplemental proposal, under the Class 1 with prior Agency approval approach, the owner or operator must submit notification of the permit modification to the implementing agency, along with documentation demonstrating that the operations at the unit meet the conditions of the exclusion and that the unit is used solely to manage excluded hazardous secondary materials. In addition, the owner or operator must comply with the requirements of 40 CFR 270.42(a)(ii) for public notification. Under § 270.42(a)(ii), the permit modification will not become effective until the owner or operator receives written approval by the implementing agency. The implementing agency will approve the permit modification so long as the owner or operator has complied with the procedural requirements of § 270.42(a) and has demonstrated that the operations meet the conditions of the exclusion, and that the unit does not manage non-excluded hazardous wastes.

One commenter disagreed with the Agency's approach, and believed that the Class 2 permit modification procedures were necessary to provide the public an opportunity to comment on the removal of the unit from the permit. The Agency disagrees with this commenter. The regulations that govern permit modification classify modifications to the permit term, to allow for earlier permit termination, as Class 1 with prior Agency approval. The Agency believes that removing permit conditions for units that are no longer regulated is, in effect, allowing earlier permit termination at those units. Thus, the Agency believes that Class 1 with prior Agency approval is the appropriate designation for these permit modifications.

In the preamble of the March 26, 2007, supplemental proposal, the Agency discussed the issue of whether closure requirements at formerly regulated units would be triggered when this rule becomes effective and the hazardous secondary materials they are receiving is no longer hazardous waste. This issue was also discussed in the October 2003 proposal, in which EPA

expressed the view that requiring closure of units in these situations would serve little environmental purpose, since after closure the unit would be immediately reopened and used to store the same (now excluded) hazardous secondary material (68 FR 61580–61581).

In today's final rule, a permitted unit that is converted solely to manage excluded hazardous secondary materials will not be subject to the 40 CFR part 264 closure requirements, since, typically, it will be managing the same material, with the only difference being that the material is now excluded from regulation as a hazardous waste. However, we expect that any funds in the closure or post-closure financial assurance mechanisms will be converted to provide financial assurance under today's exclusion, assuming the facility is operating under the transfer-based exclusion. In addition, as described in sections VII.D. and VIII.D of this preamble, at the end of the operating life of these units, all owners and operators (i.e., of units operating under either exclusion promulgated in this final rule) must manage any hazardous secondary materials that are not recycled, and remove or decontaminate all hazardous residues and contaminated containment system components, equipment structures, and soils.

A permitted facility that converts to manage only hazardous secondary materials excluded under this final rule, and is, therefore, no longer a hazardous waste management facility, will no longer be required to maintain a hazardous waste operating permit (although, as discussed below, may still be subject to corrective action).[14] However, permits issued to these facilities remain in effect until they are terminated.

In the March 2007 supplemental proposal, the Agency also requested comment on requiring owners and operators seeking to terminate their operating permits (as opposed to just removing units from their permit) by modifying the permit term to follow the procedures of 40 CFR 270.42(a) for Class 1 permit modifications, with prior Agency approval. The Agency received few comments on this issue, and is proceeding in this final rule with the proposed approach. Thus, this final rule modifies § 270.42 by adding an entry to Appendix 1 that classifies permit modifications to terminate operating permits by modifying the permit term, at facilities at which all units are excluded as a result of this final rule, as Class 1 with prior Agency approval. Under this approach, owners and operators seeking to terminate their operating permits must submit a permit modification request to the overseeing agency following the procedures of § 270.42(a) for Class 1 modifications with prior Agency approval, as described above.[15]

To support a request for permit termination by modifying the permit term, the owner or operator must demonstrate that the operations meet the conditions of the exclusion, and that the facility does not manage non-excluded hazardous wastes.

In addition, as was explained in the October 28, 2003, proposal (*see* 68 FR 61580) and again in the March 26, 2007, supplemental proposal (72 FR 14206), the obligation of 40 CFR 264.101 to address facility-wide corrective action at permitted facilities, is not affected by this final rule, and remains in effect.[16] Therefore, an owner or operator of a facility that manages only hazardous secondary materials excluded under this final rule, who seeks to terminate the facility's permit by modifying the permit term, must demonstrate as part of the permit modification request that the corrective action obligations at the facility have been addressed or where corrective action obligations remain, that continuation of the permit is not necessary to assure that they will be addressed. The Agency's corrective action authority at such facilities is not affected by this rulemaking and the Agency thus retains its authority to address corrective action at such facilities using all authorities applicable prior to this rulemaking.

At some facilities, corrective action obligations will likely continue to be addressed through the corrective action provisions of the permit. In these cases, maintenance of the permit would ensure that facility-wide corrective action will be addressed. Thus, in these cases, the permit would not be terminated by modifying the permit term, but would be modified to remove the provisions that applied to the now-excluded hazardous secondary material. The facility's permit would, thereafter, only address corrective action.

In other cases, however, EPA or an authorized state may have available an alternative federal or state enforcement mechanism or other federal or state cleanup authority, through which it could choose to address the facility's cleanup obligations, rather than continue to pursue corrective action under a permit. In these cases, where the alternate authority would ensure that facility-wide corrective action will be addressed, maintenance of the permit would not be necessary.

B. Interim Status Facilities

A facility that is operating under interim status will be affected by this final rule in much the same way as is a permitted facility and the issue of corrective action will be addressed in a similar manner. At an interim status facility that converts to managing only hazardous secondary materials that become excluded under this final rule, the part 265 interim status standards that applied to the hazardous waste management units at the facility, as well as the general facility standards in part 265, will no longer apply. At the same time, the Agency's authority to address corrective action at the facility is not affected by this final rule, and the owner or operator retains responsibility for unaddressed corrective action obligations at the facility.

C. Releases From Excluded Units at Interim Status or Permitted Facilities

Commenters on the October 28, 2003, proposal stated that one of the main purposes of the RCRA Subtitle C closure requirements is to identify and remediate any releases originating from the units. In response, the Agency noted in the March 26, 2007, supplemental proposal that releases from these units are discarded solid wastes and, therefore, potentially hazardous wastes, and agreed with the commenter's concern that such releases should be addressed. The Agency suggested in that preamble that the specific Subtitle C closure requirements may not be the most appropriate means of addressing cleanup of releases from these units, if any have occurred. Rather, the Agency suggested that a better approach to address historical releases from these

[14] Again, the owner/operator of the facility must comply with the applicable conditions and limitations of the exclusion (including the containment of the hazardous secondary material in the unit, legitimate recycling, and the prohibition against speculative accumulation) to maintain the exclusion.

[15] The commenter discussed above who disagreed with the Agency's approach for permit modifications to remove units that are no longer regulated, also believed that Class 2 permit modification procedures were necessary to provide the public an opportunity to comment on the owner or operator's request to terminate a permit by modifying the permit term. The Agency disagrees with this commenter. As was discussed above, the regulations governing permit modifications classify changes to the expiration date to allow earlier permit termination as Class 1 with prior Agency approval.

[16] Owners and operators of permitted and interim status facilities with corrective action obligations should refer to the Agency's February 25, 2003, guidance entitled "Final Guidance on Completion of Corrective Action Activities at RCRA Facilities," (*see* 68 FR 8757) for a detailed discussion of corrective action completion.

units, as well as any future releases, would be as part of corrective action for all releases at the facility—an approach that the Agency believed would achieve the same environmental results and would provide the owner or operator the option of integrating the cleanup more closely into the broader facility response.

Some commenters on the March 26, 2007, supplemental proposal objected to this approach of addressing releases from units that previously managed hazardous wastes and, as a result of today's rule, would subsequently only receive hazardous secondary materials excluded from Subtitle C control. These commenters requested that EPA expressly recognize that units storing or managing hazardous secondary materials excluded as a result of this rule would no longer be regulated as solid waste management units and are not subject to RCRA's corrective action requirements. EPA disagrees with this approach, as we have discussed previously in this section and as discussed below, and continues to believe that the best approach to addressing releases from conditionally excluded units is, generally, to address them as part of corrective action for all releases at the facility.

The Agency discussed the issue of its corrective action authority to address non-SWMU-related releases at RCRA treatment, storage, or disposal facilities in the May 1, 1996, Advance Notice of Proposed rulemaking (*see* 61 FR 19442–3). There, the Agency stated, "[g]iven the legislative history of RCRA section 3004(u), which emphasizes that RCRA facilities should be adequately cleaned up, in part, to prevent the creation of new Superfund sites, EPA believes that corrective action authorities can be used to address all unacceptable risks to human health and the environment from RCRA facilities. In the permitting context, remediation of non-SWMU related releases may be required under the "omnibus" authority * * * In other contexts, orders under RCRA sections 3008(h) or 7003 may require remedial action to address releases regardless of whether a SWMU is present."

The Agency envisions three scenarios that might apply to units from which releases have occurred. The first will arise in situations where an owner or operator fails to comply with the applicable conditions and limitations of the exclusion, and the unit consequently loses its exemption. In these situations, the unit itself will once again become a hazardous waste management unit, and the unit, as well as materials in the unit, will become subject to all requirements that were applicable prior to this final rule. Not only will corrective action authority be available at such a unit, but the closure requirements of 40 CFR part 264 or 265 will once again apply at the unit as well, and releases from that unit may be addressed through either the corrective action or the closure process.

The second scenario will arise in situations where releases occur at an excluded unit but, based on the site-specific factors, the Agency does not consider the release to be significant and, therefore, the release does not cause the unit to lose its exclusion. Failure on the part of the owner or operator to respond to such releases could be considered an act of illegal disposal. The Agency generally would address these situations by issuing an enforcement action under RCRA section 3008(a), or other applicable authorities, to compel cleanup actions and/or impose penalties. It should be noted that this approach is consistent with the approach taken by the Agency in a July 2002 final rule, in which the Agency excluded hazardous secondary materials used to make zinc fertilizers from the definition of solid waste (*see* "Zinc Fertilizers Made from Recycled Hazardous Secondary Materials," 67 FR 48400, July 24, 2002).

The third scenario will arise in situations where releases from the unit, of either the now excluded hazardous secondary material and/or other hazardous or solid wastes previously managed in the unit, were not addressed prior to the unit obtaining its exclusion. At permitted and interim status facilities, the status of those releases is unaffected by this rulemaking, and the Agency retains its authority to address them under all authorities applicable to them prior to this final rule, including sections 3004(u) and (v), and section 3008(h).

D. Financial Assurance Obtained for Closure at Newly-Excluded Units

The requirements in 40 CFR parts 264 and 265 subpart H, which applied at these units prior to their exclusion under this final rule, provide for the release of financial assurance upon certification by the facility owner or operator that closure has been completed in accordance with the approved closure plan, and after the Agency has verified that certification (*see* 40 CFR 264.143(i) and 265.143(h)).[17]

Under the approach discussed in section VII.D. and VIII.D. of this preamble, hazardous waste management units that convert to managing only hazardous secondary materials that are excluded under this final rule will no longer be subject to the 40 CFR part 264 or part 265 closure requirements. Further, while reclaimers who receive hazardous secondary materials that have been excluded under the new 40 CFR 261.4(a)(24) are required to meet financial assurance requirements,[18] persons who recycle hazardous secondary materials under the exclusions for materials recycled under the control of the generator (§ 261.2(a)(2)(ii) and § 261.4(a)(23)) are not required to meet the financial assurance requirements.

Under the requirements of 40 CFR parts 264 and 265 subpart G, owners and operators of units now eligible for the exclusion of § 261.2(a)(2)(ii) and § 261.4(a)(23) would have been required to remove and decontaminate all contaminated structures, equipment, and soils (*see* § 264.114 and § 265.114). The financial assurance provided under 40 CFR parts 264 and part 265 subpart H was designed to assure that funds would be available for these activities. In the case of generator controlled units, where financial assurance is no longer required, previous releases from the unit, which would have been addressed during closure and for which financial assurance was obtained will, as a result of this rule, now be addressed through corrective action authority. The question raised by the Agency in the March 26, 2007, supplemental proposal was whether funds obtained for closure should, therefore, be directed to corrective action activities at the unit.

Commenters on the March 26, 2007, supplemental proposal generally agreed that funds obtained for closure at units excluded under § 261.2(a)(2)(ii) and § 261.4(a)(23) (under the control of the generator) should be directed to address releases from the unit. The Agency agrees with these commenters, and encourages regulators to work with owners and operators that seek to modify their permits to remove conditions applicable to these units that will operate under the exclusion of § 261.2(a)(2)(ii) and § 261.4(a)(23), to verify that there are no unaddressed releases from the unit. In situations where corrective action is necessary at the unit, the Agency encourages regulators to work with owners and operators to assure that the releases from the unit are addressed promptly.

[17] Similar provisions at 40 CFR 264.145(i) and 265.145(h) provide for release of financial assurance for post-closure care.

[18] See section VIII.C.4 of this preamble for a complete discussion of financial assurance as a condition of the exclusion for this group of facilities.

XIII. Effect on CERCLA

A primary purpose of today's final rule is to encourage the safe, beneficial reclamation of hazardous secondary materials. In 1999, Congress enacted the Superfund Recycling Equity Act (SREA), explicitly defining those hazardous substance recycling activities that may be exempted from liability under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (CERCLA section 127). Today's final rule does not change the universe of recycling activities that could be exempted from CERCLA liability pursuant to CERCLA section 127. Today's final rule only changes the definition of solid waste for purposes of the RCRA Subtitle C requirements. The final rule also does not limit or otherwise affect EPA's ability to pursue potentially responsible persons under section 107 of CERCLA for releases or threatened releases of hazardous substances.

XIV. Effect on Imports and Exports

The exclusion for hazardous secondary materials generated and reclaimed under the control of the generator is limited to recycling performed in the United States or its territories. However, the exclusion for hazardous secondary materials exported for reclamation and the non-waste determinations included in today's final rule do not place any geographic restrictions on movements of such hazardous secondary materials, provided they meet the conditions of the exclusion or, if stipulated, conditions of the non-waste determination. It is therefore possible that in some cases excluded hazardous secondary materials could be generated in the United States or its territories and subsequently exported for reclamation to a facility in a foreign country. It is also possible that hazardous secondary materials could be generated in a foreign country and imported for reclamation in the United States. Under today's exclusion for hazardous secondary materials exported for reclamation, hazardous secondary materials are only excluded from the definition of solid waste in the U.S. and, thus, may be considered solid and hazardous wastes in the foreign country under that country's laws and regulations. If this is the case, the U.S. facility that exports or imports hazardous secondary materials will also need to comply with any applicable laws and regulatory requirements of the foreign country. For further discussion, see section VIII.C.5. of today's preamble regarding specific export and import conditions for hazardous secondary materials excluded under today's rule.

XV. General Comments on the Proposed Revisions to the Definition of Solid Waste

EPA received hundreds of comments on the October 2003 proposal and the March 2007 supplemental proposal, most of which were quite detailed and raised multiple issues. Below is an overview of some of the major comments on general aspects of the proposals and a summary of EPA's responses to those comments. For a complete discussion of all the comments and EPA's responses to those comments, please see *Revisions to the Definition of Solid Waste Final Rule Response to Comment Document* found in the docket for today's rulemaking.

A. EPA's Legal Authority To Determine Whether a Material Is a Solid Waste

Comments: Legal Authority

EPA received many comments from environmental groups and the waste treatment and recycling industry regarding EPA's authority to define when recyclable hazardous secondary materials are solid wastes and how EPA used this authority in the proposed rulemaking. Some commenters argued that EPA has no authority under the RCRA statute to broadly exclude hazardous secondary materials from the definition of solid waste. These commenters asserted that Congress intended for hazardous secondary materials to be classified as solid wastes even when they are recycled. The commenters argued that the proposed exclusions are contrary to the plain statutory language of RCRA and that EPA may not lawfully exclude pollution control sludges and materials resulting from industrial, commercial, mining, and agricultural operations, according to accepted principles of statutory interpretation. Although the commenters acknowledged that EPA has promulgated such exclusions in the past, and that one such exclusion was recently upheld in court in *Safe Food and Fertilizer* v. *EPA*, they stated that they believed that the DC Circuit erred in *Safe Food*. The commenters argue that, in the fertilizer rule upheld in *Safe Food*, EPA considered impermissible factors (e.g., market participation, management practices, and chemical identity) in defining which materials are not discarded under RCRA, and that the Agency has done so again in the current rulemaking effort.

EPA's Response: Legal Authority

EPA disagrees with comments that state that we have exceeded our authority by the exclusions being finalized today. While EPA clearly has the authority to regulate hazardous secondary materials that are reclaimed under Subtitle C of RCRA when discard is involved, the Agency also believes (and the courts have generally confirmed) that when hazardous secondary materials are reclaimed and such recycling operations do not involve discard, the hazardous secondary materials involved are not solid wastes under RCRA. EPA also has the authority to determine which types of recycling do not involve discard and, therefore, which types of hazardous secondary materials are not solid wastes. As EPA noted in the March 2007 supplemental proposal, "[u]nder the RCRA Subtitle C definition of solid waste, many existing hazardous secondary materials are not solid wastes and, thus, not subject to RCRA's 'cradle-to-grave' management system if they are recycled. The basic idea behind this construct is that recycling of such materials often closely resembles normal industrial manufacturing, rather than waste management" (72 FR 14197). Existing exclusions, found in 40 CFR 261.4(a), provide a long historical precedent for EPA's authority to exclude reclaimed materials from the definition of solid waste. EPA refers these commenters to the discussion of case law, above, and asserts that this rule follows valid precedent in the DC Circuit, including the court's opinion in Safe Food.

B. Adequacy of Conditions and Restrictions Used To Determine Whether a Material Is a Solid Waste

Comments: Adequacy of Conditions

Other commenters did not dispute EPA's authority to exclude hazardous secondary materials from the definition of solid waste, but instead argued that before EPA can lawfully claim that excluded materials are not discarded, the Agency would need to strengthen the conditions to protect human health and the environment. For example, one commenter believed that all legitimacy criteria should be mandatory, that performance standards, such as secondary containment are needed for materials stored in tanks and containers, and that EPA should require engineered liner systems and monitoring for materials stored in land-based units.

EPA's Response: Adequacy of Conditions

EPA disagrees that the restrictions we are requiring for the under the control of the generator exclusions or the conditions and restrictions we are requiring for the transfer-based exclusion are inadequate. Each of the restrictions and/or conditions is specifically linked to defining when the hazardous secondary materials are not discarded and to ensuring that the regulatory authority has the information needed to oversee the exclusion. Specifically, for hazardous secondary materials reclaimed under the control of the generator, the fact that the generator maintains control and liability for the hazardous secondary materials, either by managing them on-site, within the same company, or under a specific tolling contract, is itself an indication that the materials are not discarded. The prohibition on speculative accumulation (as defined in 261.1(c)(8)), addresses both the situation in which a large percentage of the hazardous secondary material is accumulated over the year without being recycled and the situation where there is no feasible means of recycling the hazardous secondary material, regardless of volume. Finally, the requirement that the hazardous secondary materials must be contained in the unit recognizes the reality that hazardous secondary materials that are released to the environment are discarded.

For hazardous secondary materials transferred to another party for reclamation, the fact that the generator is required to make reasonable efforts to ensure that its hazardous secondary materials are properly and legitimately reclaimed demonstrates that the generator is not simply disposing of the material, but instead is taking responsibility that the hazardous secondary materials will be recycled. In addition, by maintaining a record of each shipment and a confirmation of receipt, the generator demonstrates that it continues to take responsibility for knowing the ultimate disposition of its hazardous secondary materials. Furthermore, by obtaining financial assurance, the reclamation facility demonstrates that it has also taken on the responsibility to ensure that the hazardous secondary materials will not be abandoned in the event that circumstances make it impossible for the facility to reclaim the hazardous secondary materials. For further discussion of how these and other restrictions and/or conditions of the exclusions are linked to defining when hazardous secondary materials are not discarded, see section V of this preamble, as well as sections VII–IX and sections XVI–XVIII. Support for the Agency's determination regarding which materials are not discarded is also found throughout the rulemaking record in this proceeding.

EPA also disagrees that specifying further engineering conditions, such as secondary containment, liners, and leak detection systems, is needed to determine which hazardous secondary materials are not being discarded. The restrictions EPA has established and the conditions that EPA is finalizing today address a variety of hazardous secondary materials and reclamation operations that are linked to defining the act of discard, rather than specifying a particular technology that may not be appropriate in some cases.

Furthermore, hazardous secondary materials excluded under today's rule may remain subject (or become subject) to requirements under other statutory programs. For example, hazardous secondary material generators, transporters, intermediate facilities and reclaimers may be subject to regulations developed under:

- The Occupational Safety and Health Act of 1970, which requires hazard communication programs, labeling, material safety data sheets (MSDS) and employee information and training (29 CFR part 1910). The Occupational Safety and Health Administration (OSHA) regulations also require emergency response planning and training under their Emergency Response Program to Hazardous Substance Releases (29 CFR 1910.120);
- The Hazardous Materials Transportation Act of 1975 and the subsequent Hazardous Materials Transportation Uniform Safety Act of 1990, which requires hazardous secondary materials meeting DOT's defining criteria for hazard classes and divisions to comply with hazard identification, shipping papers, labeling and placarding, incident reporting and security plans (49 CFR part 107 and parts 171–180);
- The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Emergency Planning and Community Right-to-Know Act (EPCRA) and the Superfund Amendments and Reauthorization Act (SARA) of 1986 which, combined, require notification of hazardous substance releases above a reportable quantity, emergency planning and, if applicable, MSDS and inventory reporting (40 CFR 302.6, 40 CFR parts 355 and 370). Hazardous secondary material generators and reclaimers meeting defined criteria are also subject to toxic chemical release reporting (i.e., Toxics Release Inventory (TRI) under EPCRA (40 CFR part 372)).

While not exhaustive, this list provides examples of regulatory programs designed to protect human health and the environment developed under other statutory authorities alongside of RCRA. For more information on these regulatory programs, please see "Memorandum: Requirements that other Regulatory Programs would place on Generators, Reclaimers and Transporters of Hazardous Secondary Materials" located in the docket for this rulemaking.

C. EPA's Authority To Regulate Recycling

Comments: EPA's Authority

EPA also received comments from the hazardous waste generating industry disputing EPA's authority to promulgate today's rule. Unlike the environmental groups' and waste treatment and recycling industry's comments, which argued that EPA has no authority to deregulate hazardous secondary materials recycling, many of the generator industry comments asserted that EPA has no authority to regulate such recycling, even to prohibit speculative accumulation or require that the hazardous secondary materials be contained.

While most such commenters applauded EPA's decision in the March 2007 supplemental proposal to explicitly link the proposed exclusions to the concept of defining when hazardous secondary materials are not discarded, many of these comments argued that EPA has over-reached its statutory authority by imposing restrictions or conditions that the commenters argued have no relationship to discard.

Some commenters asserted that limiting the exclusions for hazardous secondary materials reclaimed under the control of the generator and imposing conditions on the exclusion for hazardous secondary materials transferred to a third party for reclamation, EPA has misread the intent of Congress. These comments cite previous court cases, noting the "analysis of the statute reveals clear Congressional intent to extend EPA's authority only to materials that are truly discarded, disposed of, thrown away, or abandoned" (*AMC I*, 824 F2d. at 1190). They go on to argue that materials being recycled do not fall into one of these enumerated activities.

Specifically, many of the comments cite the *ABR* decision (which in turn cites earlier court decisions), where the

court noted that EPA's authority is "limited to materials that are 'discarded' by virtue of being disposed of, abandoned, or thrown away" and that "[s]econdary materials destined for recycling are obviously not of that sort. Rather than throwing them away, the producer saves them, rather than abandoning them, the producer reuses them" (*ABR* 208 F.3d at 1051). "To say that when something is saved it is thrown away is an extraordinary distortion of the English language" (*Id.* at 1053). The commenters assert that, by limiting the exclusion to hazardous secondary materials intended for recycling that are "contained" in the unit, EPA is illegally imposing conditions on a material that has not been discarded.

Other comments take issue with EPA's decision to impose conditions for the transfer-based exclusion. These comments criticize EPA's rationale that, in part, bases the conditions on the fact that "subsequent activities are more likely to involve discard, given that the generator has relinquished control of the hazardous secondary material" (72 FR 14178). One commenter specifically challenged the proposed financial assurance requirement, claiming that the condition does not define the absence of discard and would effectively impose a waste management requirement upon a non-waste.

EPA's Response: EPA's Authority

EPA disagrees with the comments that Congress did not intend to give EPA the authority to regulate hazardous waste recycling. As EPA noted in both the October 2003 proposal and the March 2007 supplemental proposal, the RCRA statute and the legislative history suggest that Congress expected EPA to regulate as solid and hazardous wastes certain materials that are destined for recycling (*see* 45 FR 33091, citing numerous sections of the statute and *U.S. Brewers' Association* v. *EPA*, 600 F. 2d 974 (DC Cir. 1979); 48 FR 14502–04, April 3, 1983; and 50 FR 616–618). Moreover, the case law discussed above clearly shows instances where EPA properly regulated the recycling of solid and hazardous wastes.

EPA also disagrees that requiring the hazardous secondary materials to be "contained" contradicts the court's finding in *ABR* that EPA does not have the authority to define when hazardous secondary materials are not discarded. By limiting the exclusion to hazardous secondary materials that are contained, EPA is defining "discard" for this material. While it is true that the court has said that materials recycled in a continuous process by the generating industry are not solid wastes, commenters have failed to demonstrate how hazardous secondary materials that are *not* contained meet that description. By "contained," EPA means not released to the environment. It is a self-evident fact that hazardous secondary materials released to the environment (e.g., causing soil and groundwater contamination) are not "destined for recycling" or "recycled in a continuous process"; thus, they are part of the waste management problem. Moreover, as discussed above in section VII.C, to the extent that significant releases to the environment from a storage unit have occurred and remain unaddressed, it is reasonable to conclude that the material remaining in the unit is also actively being discarded. It is important to note that the hazardous secondary materials that remain in the unit are not solid wastes, unless the releases from the storage unit indicate that these materials are not being managed as valuable commodities and are, in fact, discarded. For examples of releases from a hazardous secondary materials storage unit that indicate that the hazardous secondary material in the unit is discarded and examples of releases that do not indicate discard, see section VII.C. of this preamble.

EPA also disagrees with comments that, under the transfer-based exclusion, EPA cannot consider the fact that the generator has relinquished control of the hazardous secondary material (along with other factors that indicate discard) in determining what conditions are needed for this exclusion. EPA's authority to regulate such transfers is clear: as the Court noted in *Safe Food*, "materials destined for future recycling by another industry *may* be considered 'discarded'; the statutory definition does not preclude application of RCRA to such materials if they can reasonably be considered part of the waste disposal problem" (350 F.3d at 1268).

EPA's record for today's rulemaking demonstrates that third-party recycling of hazardous secondary materials has been and continues to be part of the waste disposal problem, and, without the conditions being finalized today, these hazardous secondary materials would be solid wastes. Of the 208 damage cases in EPA's study of environmental problems associated with post-RCRA, post CERCLA hazardous secondary materials recycling, 94% appeared to take place at commercial off-site facilities. Moreover, EPA's study of how market forces impact recycling demonstrates that these damages are consistent with our understanding of how the business model for commercial recycling can lead to sub-optimal results. As opposed to manufacturing, where the cost of inputs, either raw materials or intermediates, is greater than zero and revenue is from the sale of the output, recycling conducted by commercial hazardous secondary materials recyclers involves generating revenue from receipt of the hazardous secondary materials, as well as from the sale of the output. Recyclers of hazardous secondary materials in this situation can have a short-term incentive to accept more hazardous secondary materials than they can economically or safely recycle, resulting in the hazardous secondary materials eventually being discarded.

The financial assurance condition for the transfer-based exclusion being finalized today is directly linked to this situation. By obtaining financial assurance, the owner or operator of the reclamation facility is making a direct demonstration that it will not abandon the hazardous secondary material. Of the 208 damage cases, 69 (or 33%) were primarily caused by abandonment of the hazardous secondary material by the recycler. None of 69 facilities whose damages were primarily caused by abandonment had financial assurance.

Under the transfer-based exclusion, financial assurance is the means by which the recycler demonstrates an investment in the future of the recycled materials; even if the market changes in such a way that the recycler can no longer process the hazardous secondary materials, by obtaining financial assurance, it has made certain that the hazardous secondary materials will not be abandoned and therefore not discarded. EPA therefore disagrees with the comment that the financial assurance condition is not related to discard of the material.

Moreover, financial assurance also addresses the correlation of the financial health of a reclamation facility with the absence of discard of hazardous secondary materials. According to the successful recycling study, an examination of a company's finances is an important part of many of the environmental audits generators currently use to determine that their hazardous secondary materials will not be discarded. In addition, the environmental problems study showed that bankruptcies or other types of business failures were associated with 138 (66%) of the damage cases, and the market forces study identified a low net worth of a firm as a strong indication of a sub-optimal outcome of recycling (i.e., over-accumulation of hazardous secondary materials, resulting in releases to the environment and

abandonment of hazardous secondary materials).

In the March 2007 supplemental proposal, EPA proposed to require that reclamation facilities obtain financial assurance to ensure that the reclamation facility owner/operators who would operate under the terms of this exclusion are financially sound (72 FR 14191), and many commenters supported this condition and EPA's rationale. EPA continues to believe that the findings in the recycling studies indicate a correlation between financial health of a reclaimer and the likelihood he will not discard the hazardous secondary materials.

D. Comments on Recycling Studies

1. Environmental Problems Study

EPA completed *An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials* in order to identify and characterize environmental problems attributed to hazardous secondary materials recycling activities and to provide the stakeholders with a clearer picture of the recycling industry in the United States.

The environmental problems study (or study) was conducted in response to public comments received on the October 2003 proposal and to guide EPA's deliberations on how to proceed with the March 2007 supplemental proposal. In the public comments to the October 2003 proposal, a number of commenters expressed concern that deregulating hazardous secondary materials that are reclaimed in the manner described in that proposal could result in mismanagement of the hazardous secondary materials, and thus could create new cases of environmental damage requiring remedial action under federal or state authorities. Some of these commenters illustrated their concern by citing specific examples of environmental damage related to hazardous secondary materials recycling. A number of other commenters expressed the view that the great majority of the damage cases cited by commenters had occurred before RCRA, CERCLA, or other environmental regulatory programs were established in the early 1980s and, therefore, that the cases represent "historical" recycling-related environmental damage and are not particularly relevant or instructive for revising the RCRA Subtitle C definition of solid waste. These commenters further argued that the environmental programs—most notably RCRA's hazardous waste regulations and the liability provisions of CERCLA—have created strong incentives for the proper management of recyclable hazardous secondary materials and recycling residuals.

In response to the March 2007 supplemental proposal and to the study, made public in the rulemaking docket in conjunction with that proposal, EPA received comments on the study from a variety of commenters. In general, the comments pertain to the scope and methodology of the study and how the study reflects on today's exclusions and restrictions and/or conditions of the exclusions.

Comments: Scope and Methodology

With respect to the scope and methodology of the study, a few commenters agreed with excluding historical damage cases from the study and stated that recycling operations have in fact improved since RCRA was enacted. A few commenters provided several types of recycling-related environmental problems familiar to state agencies and a few commenters suggested the review of several additional damage cases. A few commenters argued that inclusion of their facility in the study, or the inclusion of their industry representatives' facilities, was unfounded due to one or more of the following reasons: Hazardous secondary materials were exempt from RCRA when environmental problems occurred; environmental problems stem from historical or pre-RCRA activities; numerous facilities in the study shut down during the 1980s in response to the creation of regulatory disincentives; environmental problems were addressed pursuant to CERCLA; and problematic activities were clearly a result of non-compliance. Also, a commenter suggested that one damage case profiled in the study "is not a good example of a contaminated site caused by recycling." In support of their comment, the commenter cited a Record of Decision (ROD) which stated that the site's former foundry operations, which existed pre-RCRA, caused soil and groundwater contamination.

One commenter suggested EPA overlooked potential sources of information for the study, including television commentary, media reports, books, and other reports (specifically one state report), and one commenter suggested that EPA "may have missed reviewing relevant files" by not analyzing state and regional paper files. Another commenter expressed concern that the study was not peer reviewed.

EPA's Response: Scope and Methodology

EPA acknowledged in the preamble to the March 2007 supplemental proposal that we did not search every possible information source for damage cases for the environmental problems study. For example, we did not systematically survey all state environmental agencies for relevant cases, nor did we search paper files in EPA Regional offices. We did solicit damage cases from regional representatives and we solicited additional cases through the public comment process. We recognize that there are likely to be additional cases that we did not identify. However, we have no reason to believe that additional cases would substantially change the overall picture. In fact, information submitted to EPA does not indicate that EPA has failed to find a representative sample of environmental damage caused by recycling activities.

EPA maintains that historical recycling-related damage cases are much less relevant and instructive than cases which have occurred within the current regulatory and liability landscape, and several commenters shared our belief. We value state commenters' general discussion of environmental problems encountered at recycling operations and note that any facility taking advantage of today's exclusion will need to comply with all applicable protective restrictions and conditions.

We also appreciate the suggestion of additional damage cases to review for the study. Based on our analysis of these cases, we have added one new damage case site to the study and updated two existing damage case profiles with more information about environmental problems (*see Addendum: An Assessment of Environmental Problems Associated With Recycling of Hazardous Secondary Materials*). We also determined that three damage cases identified in the public comments already are included in the 2007 study and additional information was not revealed to supplement the profiles; determined that one damage case identified in the public comments was previously reviewed and the damage was deemed unrelated to recycling and that no additional information was provided to change this conclusion; and determined that two sites identified in the public comments had damage unrelated to recycling. We concluded that the new damage cases and the supplemental information added to existing cases are consistent with the damage cases previously cited in the study; therefore, the additional facts do

not substantially change our understanding of the hazardous secondary materials recycling damage cases.

EPA maintains that the damage cases captured in the environmental problems study fall within the study's scope and, as such, are relevant for guiding the development of today's rulemaking. As we discussed in the study, we are interested in whether damage may be more or less prevalent for hazardous secondary materials that are explicitly exempted or excluded from RCRA regulatory controls and we are less interested in historical or pre-RCRA cases (defined in the study as before 1982). We also indicated in the study that we are interested in "whether or not the recycler * * * went out of business" and which "government program is responsible for overseeing the cleanup of the site," and clearly we are interested in acts of non-compliance that resulted in environmental damage. These points of interest, among others cited on pages 4–5 of the study, are informative for the purpose of this rulemaking and are within the scope of the study. Consequently, we disagree with industry and association commenters who argued that certain damage cases did not warrant inclusion in the Environmental Problems Study.

We acknowledge that the particular damage case referenced by a commenter as "not a good example" for the study does in fact exhibit environmental damage which can be partially attributed to foundry operations pre-1982. However, as indicated in the damage case profile in Appendix II of the study, the damage case was included in the study due to the following factors, which do not include damage associated with pre-1982 operations: Abandonment of drums of spent catalyst, bankruptcy, and business closure. As a result, we maintain that this damage case is within the scope of the study.

While we acknowledge that we did not review all possible sources of information for our study and generally relied on readily available material, we did in fact rely on media reports for information and we collaborated with regional representatives who are very knowledgeable about the damage cases and who assisted us in fact checking and suggesting damage cases. With respect to a commenter's suggestion that we review the "Final Report of the Waste and Hazardous Materials Division, Fire & Explosions Task Force," produced by Michigan DEQ, we regret that the state has not yet made the report publicly available. However, we note that the scope of the draft Michigan study was not limited to hazardous secondary materials recycling operations, and shows that accidents can and do occur in all types of manufacturing facilities.

Despite the fact that we did not conduct an exhaustive review of all possible sources of damage case information, we believe that the restrictions and conditions of today's exclusions are sufficient to ensure safe recycling activities. For facilities operating under the transfer-based exclusion, sudden accidental liability coverage for bodily injury and property damage to third parties is required for all units, and non-sudden accidental liability coverage is required for land-based units (see section VIII.C.4. for a more detailed discussion of liability coverage). We also note that facilities may be subject to other regulations that ensure facility safety, such as the OSHA requirements and state and local requirements (*see* "Memorandum: Requirements that other Regulatory Programs Would Place on Generators, Reclaimers and Transporters of Hazardous Secondary Materials" made available in the docket for today's final rulemaking). While EPA has not done a definitive study of other regulatory requirements, we are reasonably comfortable with the fact that the available information indicates oversight by other regulatory agencies would significantly mitigate potential damage from the non-discarded materials.

With respect to the comment regarding peer review, we believe that while the study was not peer reviewed, the scope and methodology are sound, as evidenced by the small number of comments received on this issue. Additionally, peer review was not warranted by EPA peer-review standards because the study is not a scientific and/or technical work product. Rather, the study is an analysis of existing and publicly available information compiled to provide a representative view of hazardous secondary materials recycling.

Comments: Study's Relation to Today's Actions

EPA received a number of comments alleging that the study does not support today's exclusions. Several commenters strongly believe that the study reflected that recycling hazardous secondary materials is a high risk activity and thus should remain fully regulated. A few commenters wrote that the study does not support the transfer-based exclusion and these commenters collectively predicted that the exclusion will create future damage cases. To bolster their feedback, one commenter stressed that the majority of all damage cases cited in the study are located off-site from the facilities that generated the hazardous secondary materials. Commenters also used the study's findings (namely damage type, damage cause, cost of cleanup) to support their opposition to the transfer-based exclusion. In particular, commenters stressed the financial impact to states and communities if additional environmental clean-ups were to result from facilities taking advantage of the exclusions.

On the other hand, EPA also received responses from several commenters stating that the environmental problems study supports the proposed conditions of the transfer-based exclusion for reclaimers and generators. While several of these commenters opposed codification of the transfer-based exclusion, other commenters supported it as long as there were requirements to ensure protection of public health and the environment. For example, commenters responded that mismanagement of hazardous secondary materials, residuals, and recycled products or intermediates in the damage cases clearly represented a need to have requirements for protective management and storage, as well as a requirement for safe residuals management. Additionally, commenters believed in the importance of a financial assurance requirement to protect against the damage noted in the study related to bankruptcy and the abandonment of hazardous secondary materials and residuals. A commenter also responded that generators should assess whether the above protections exist at reclamation facilities in order to minimize their future liability. Additionally, in response to the study, EPA received one comment suggesting that each of the following safeguards be added to the exclusions: Tracking materials, restriction on land-based storage, and 90-day storage provisions in 40 CFR part 262 for all generators, including those who recycle on-site.

EPA's Response: Study's Relation to Today's Actions

While EPA agrees that the study reflects the risk and problems involved with recycling hazardous secondary materials, we disagree with those commenters who stated that the study does not support today's exclusions because of the perceived risk posed by the exclusions. Instead, we agree that the environmental problems highlighted in the study demonstrate the need to promulgate restrictions and conditions for the exclusions (e.g., requirements for

financial assurance, reasonable efforts, shipping documentation, hazardous secondary materials management, legitimate recycling, and speculative accumulation). EPA maintains that the restrictions and conditions finalized with today's exclusions, and discussed more in depth in sections VII.C. and VIII.C., will address the problems identified in the study and will limit the exclusions to materials that EPA has determined are not discarded. We also agree with those commenters who suggest that generators should assess whether reclamation facilities adequately manage hazardous secondary materials in order to mitigate the risk of future environmental problems. Consequently, we are finalizing the reasonable efforts condition for the transfer-based exclusion.

Comments: Restrictions on Mining and Mineral Processing

A few commenters responded that the study does not support controls on land-based storage of hazardous secondary materials at mining and mineral processing facilities. They cited that only 1 of the 208 damage cases is associated with a primary mineral processing facility. Thus, the commenters argued that the small number of environmental problems stemming from recycling at mining and mineral processing facilities does not warrant the proposed regulatory oversight of the industry.

EPA's Response: Restrictions on Mining and Mineral Processing

EPA acknowledges that the environmental problems study included one damage case from primary mineral processing and two damage cases from secondary mineral processing. We note that whether an industry has a single damage case represented in the study or numerous damage cases, all industries are treated equally within the final rulemaking for hazardous secondary materials generated, reclaimed, and managed in land-based units (40 CFR 261.4(a)(23)).

Moreover, further review of publicly available data revealed four additional damage case profiles from primary and secondary mineral processing facilities, which corroborates EPA's view that the findings from the environmental problems study apply across industries, including the mining and mineral processing industries (*see Addendum: An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials* to review new damage case profiles). Of the four additional damage cases, three are primary mineral processing facilities and one is a secondary mineral processing facility. Improper disposal of residuals and improper management of recyclables are the most frequently observed primary damage cause at such facilities. The primary environmental damage type resulting from the above activities are soil contamination, wildlife exposure, and groundwater and surface water contamination.

We have concluded that the additional damage cases do not substantially change the overall picture of environmental problems caused by hazardous secondary materials recycling activities at facilities, including mining and mineral processing facilities. We also disagree with the commenters' assertion that restrictions on land-based storage units are not supported by the environmental problems study. Cumulative damage causes from the study support the restrictions imposed by 40 CFR 261.4(a)(23) and the identification of additional mining and mineral processing damage cases corroborates EPA's finding that no industry should be exempt from the restrictions and/or conditions due to the limited number of damage case profiles exhibited in the environmental problems study.

2. Good Recycling Practices Study

EPA completed *An Assessment of Good Current Practices for Recycling of Hazardous Secondary Materials* to provide a more complete picture of the hazardous secondary materials recycling industry in the United States. The study examines what practices responsible generators and recyclers currently use to ensure that their hazardous secondary materials are recycled responsibly.

One purpose of the study was to provide the Agency with another angle from which to view the hazardous secondary materials recycling industry. EPA has long heard from representatives of that industry that management of hazardous secondary materials has changed and improved since RCRA was implemented in the early 1980s. In addition, by indicating what controls responsible recyclers are using, the study was intended to help EPA determine which kinds of regulatory requirements would be most appropriate and effective as conditions of the exclusions.

Some of the comments on the successful recycling study supported the conclusions in the study. Particularly, these commenters stated that audits are typical, that they usually cover the subjects described in the study, and that RCRA and CERCLA liability are drivers of responsible recycling behavior. Several other commenters suggested that other incentives affecting the behavior of recyclers include economic concerns, the RCRA hazardous waste regulations, and environmental and safety regulations under other statutes.

Comments: Scope of the Successful Recycling Study

EPA received several critical comments in response to the study on responsible recycling behaviors. One comment that appeared more than once was that EPA's study focused too much on large companies and that many of the practices a large company undertakes with a full environmental staff would not be possible for a smaller company and, therefore, that the practices are not widespread among smaller companies.

EPA's Response: Scope of the Successful Recycling Study

EPA agrees with the focus on larger companies in the study and discusses it in the methodology section of the report's introduction. Because many of the contacts for interviews for the report came out of the public comments on the October 2003 proposed rule, much of the information in the report came from companies large enough to have staff responsible for submitting public comments to federal proposed rulemakings. However, where possible and appropriate, the study does examine the options for small businesses, as well as what small businesses are doing that approximates the audit programs and other practices of larger companies. The Agency did find that many small companies are concerned with questions of liability in their hazardous secondary materials recycling and often either belong to auditing consortiums or already do smaller audits by mail and telephone if they cannot afford to set up visits to the recycling facilities to examine them in person.

Comments: Purpose of the Successful Recycling Study

Another comment made by several commenters expressed a concern that circular logic was in place in the March 2007 supplemental proposal. The commenters stated that it was regulation under RCRA that led to the growth of the good practices being described and stated that EPA was using these practices as justification for taking away the very regulations that led to them.

EPA's Response: Purpose of the Successful Recycling Study

The Agency believes that those making this comment misunderstood

the relationship between the successful recycling study and the March 2007 supplemental proposal. The proposal did not state that this background material was a justification for why the Agency proposed the conditional exclusion for hazardous secondary materials not under the control of the generator. Rather, the Agency looked to the study to determine what the current responsible practices are and to use that information to inform decisions on what restrictions and/or conditions would be appropriate for the transfer-based exclusion. By promulgating restrictions and/or conditions that will lead to responsible management of hazardous secondary materials, the Agency intends to encourage hazardous secondary materials recycling, while protecting human health and the environment.

3. Market Forces Study

EPA received very few comments on *Potential Effects of Market Forces on the Management of Hazardous Secondary Materials Intended for Recycling.* The purpose of this study is to use economic theory to describe how various market incentives can influence a firm's decision making process when the recycling of hazardous secondary materials is involved. Different economic incentives between the recycling of hazardous secondary materials and manufacturing can arise due to differences in these two business models. As opposed to manufacturing, where the cost of inputs of either raw materials or intermediates is greater than zero and revenue is generated primarily from the sale of the output, some models of hazardous secondary materials recycling involve generating revenue primarily from the receipt of the hazardous secondary materials. Recyclers of hazardous secondary materials in this situation may thus respond differently to economic forces and incentives from traditional manufacturers.

Comments and EPA's Response: Market Forces Study

Most of the commenters agreed with the underlying premise of the study that market forces affect commercial recycling differently from how they affect manufacturing from virgin materials, thus creating a potential incentive for the over-accumulation of hazardous secondary materials in some circumstances. Thus, the study supports both the proposed conditions for the transfer-based exclusion and the "useful contribution" factor for the legitimacy criteria. EPA agrees with these comments.

One commenter stated that as a result of the market forces study, EPA should also include a requirement that the generator evaluate the financial health of the recycler before shipping a hazardous secondary material to the recycler. While EPA agrees that evaluating the financial health of a company can be useful and informative, and encourages companies to do so, it is not an activity that lends itself to an objective standard that would be appropriate for regulation. Instead, EPA is requiring recyclers under the transfer-based exclusion to have financial assurance in order to determine that negative economic factors will not result in the hazardous secondary materials being abandoned.

One commenter disagreed with the study's conclusion that intra- and inter-company recyclers have more flexibility in their waste management decisions than commercial recyclers do. The commenter noted that company politics and internal goals can make it difficult to switch from recycling to disposal, even if the market forces make it more economical, and that it may take two or more months to find a disposal contractor.

While EPA generally agrees that there are more factors at work than those described in the study, we continue to believe that intra- and inter-company recycling have more flexibility in waste management decisions than a commercial recycler does. When a commercial recycler's entire income is from accepting hazardous secondary materials for recycling and selling recycled products, there is no economic alternative for it to stop recycling and continue to stay in business unless it can afford the cost of a hazardous waste management permit and the cost of becoming a hazardous waste disposal facility. This finding is supported by the results of the damage cases, the overwhelming majority of which were at commercial recycling facilities.

E. Use Constituting Disposal (UCD) and Burning for Energy (BFE)

Comments: UCD and BFE

EPA received extensive comments on both the October 2003 proposal and the March 2007 supplemental proposal requesting that the scope of the proposed rules be expanded to include hazardous secondary materials used in a manner constituting disposal and hazardous secondary materials burned for energy recovery. Commenters argued that these operations do not involve discard, and that they can have many environmental benefits, including resource conservation and reduction in greenhouse gas emissions. In particular, commenters argued that hazardous waste that is indistinguishable from a commercial fuel should be not a solid waste. Other commenters supported keeping the exclusion focused on reclamation and not including use constituting disposal and burning for energy recovery. Commenters noted that these types of activities, in some cases, are akin to discard, that precedents exist for regulation of these hazardous secondary materials, and that recycling and reclamation are higher on the waste management hierarchy and more likely to conserve resources than burning for energy recovery.

EPA's Response: BFE and UCD

EPA continues to maintain that comments on UCD and BFE are outside the scope of the solid waste exclusions in today's final rule, which are focused on reclamation. EPA agrees that hazardous secondary materials that are comparable to commercial fuels should not be solid wastes, and the Agency has already promulgated an exclusion for certain of these materials (40 CFR 261.4(a)(16)). However, as stated earlier, such materials are outside the scope of today's final exclusions and are best addressed under separate rulemaking efforts.

XVI. Major Comments on the Exclusion for Hazardous Secondary Materials Legitimately Reclaimed Under the Control of the Generator

A. Scope of the Exclusion

1. Exclusion for Materials Recycled On-Site

Comments: On-Site Exclusion

In our March 2007 supplemental proposal, EPA proposed to exclude from the definition of solid waste hazardous secondary materials that are generated and legitimately reclaimed at the generating facility. EPA proposed to define "generating facility" in 40 CFR 260.10 as "all contiguous property owned by the generator" (72 FR 14214). We noted that our proposed definition would include situations where a generator contracted with another company to reclaim hazardous secondary materials at the generator's facility, either temporarily or permanently. The Agency solicited comment on whether facilities under separate ownership, but located at the same site (*e.g.*, industrial parks), should be included within this proposed exclusion. We also solicited comment on other definitions which might be compatible with the concept of generator control.

Commenters who addressed this issue generally supported the proposed on-site exclusion. They agreed with EPA that hazardous secondary materials reclaimed by a generator at its facility are unlikely to be discarded because the materials will be managed and monitored by a single entity who is familiar with both the generation and recycling of the hazardous secondary materials. Several commenters also agreed with EPA that environmental risks were lessened if the hazardous secondary materials were not transported off-site, and that fewer liability questions would arise in the case of accidents or mismanagement.

With respect to companies under separate ownership, but located at the same site, commenter reaction was more mixed. Some commenters said that this situation is not compatible with generator control. They argued that unrelated companies would not be as likely to have knowledge of each other's operations and hazardous secondary materials, and that additional controls were necessary, such as financial assurance for the reclaimer and reasonable efforts on the part of the generator (conditions that EPA had proposed for the transfer-based exclusion).

Other commenters supported an exclusion for facilities under separate ownership, but located at the same site, (*i.e.*, co-located facilities). These commenters said that such an exclusion would encourage recycling. These commenters mentioned a variety of scenarios which they argued should be eligible for the exclusion. Some commenters described integrated chemical manufacturing operations with co-located facilities that are owned by different entities because of corporate mergers and acquisitions. Another commenter noted that at some steel plants, spent pickle liquor is reclaimed on-site by a company that is different from the company operating the steel plant. Other commenters noted that coke and tar plants at iron and steel facilities are sometimes owned by electric utilities. A few commenters argued that facilities at airports should be eligible for the exclusion, and other commenters mentioned various cooperative recycling ventures within the automotive industry. Some operations mentioned by commenters appeared to be prospective rather than actual.

EPA's Response: On-Site Exclusion

After evaluating these comments, EPA has decided to finalize this provision as proposed and to limit the exclusion to hazardous secondary materials that are generated and legitimately reclaimed by the hazardous secondary material generator at that generator's facility. We agree with the commenters that at least some of the situations they described are not necessarily incompatible with generator control. One of the situations—spent pickle liquor recycled on-site at a steel mill—is eligible for the generator-controlled exclusion if the generator has contracted with the company to reclaim the material at the generator's facility. However, the Agency does not have sufficient legal or factual information about other situations mentioned by the commenters to determine if there is a single entity who remains in control of the hazardous secondary material throughout the reclamation process.

For this reason, EPA believes that such situations may be more appropriately addressed under the exclusion for hazardous secondary materials transferred for reclamation (40 CFR 261.4(a)(24)) or under the case-by-case non-waste determination procedures finalized today in § 260.30.

For the sake of clarity and in response to comments, we are also adding a definition of "hazardous secondary material" and "hazardous secondary material generator" to § 260.10. "Hazardous secondary material" means a secondary material that, when discarded, would be identified as hazardous waste under part 261 of 40 CFR. "Hazardous secondary material generator" means any person whose act or process produces hazardous secondary material at the generating facility. A facility that collects hazardous secondary materials from other persons is not the hazardous secondary material generator. These definitions would apply to all of the exclusions promulgated today. We note that generators sometimes contract with a second company to collect hazardous secondary materials at the generating facility, after which the hazardous secondary materials are subsequently reclaimed at the facility of the second company. In that situation, the hazardous secondary materials would no longer be considered "under the control of the generator" because the materials are not reclaimed at the generating facility. The materials should instead be managed under the exclusion for materials transferred for reclamation.

EPA agrees with certain comments that a facility that generates hazardous secondary materials may lease the property where it conducts operations, rather than own the property and that our proposed definition of "generating facility" would not cover such arrangements. EPA has therefore changed the definition of "generating facility" in 40 CFR 260.10 to read "all contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator." We have also amended the existing definition of "facility" in § 260.10 to include a reference to management of hazardous secondary materials. Therefore, any references to "facilities" or "units" of a facility in today's rule also refers to facilities or units managing hazardous secondary materials excluded under this rule.

2. Exclusion for Materials Recycled by the "Same Company"

In its March 2007 supplemental proposal, EPA proposed to exclude from the definition of solid waste hazardous secondary materials that were generated and reclaimed by the same "person" as defined in 40 CFR 260.10, if the generator certified the following: "on behalf of [insert company name], I certify that the indicated hazardous recyclable material will be sent to [insert company name], that the two companies are under the same ownership, and that the owner corporation [insert company name] has acknowledged full responsibility for the safe management of the hazardous secondary material" (72 FR 14214). "Person," as defined in § 260.10, means an individual, trust, firm, joint stock company, Federal Agency, corporation (including a government corporation), partnership, association, State, municipality, commission, political subdivision of a State, or any interstate body. EPA proposed the certification requirement because of existing complexities in corporate ownership and liability. The certification would clarify the responsibilities of the generator and reclaimer and would help regulatory authorities determine whether a facility was eligible for this exclusion. The Agency solicited comment on any other certification language that might accomplish the same end, and on other definitions of "same-company" (72 FR 14186).

Comments: Same-Company Exclusion

Many commenters supported this exclusion and stated that hazardous secondary materials sent from one company's facility to another remained essentially under the control of the generating company. According to these commenters, if a generator sends materials to a reclaimer that is part of the same corporate structure, the generator is likely to be familiar with the recycling and materials management processes employed by the reclaimer. In addition, questions regarding liability

and responsibility for such hazardous secondary materials are likely to be clearer than is the case with facilities from unrelated companies.

Other commenters stated that when hazardous secondary materials are generated and transported off-site for reclamation, additional controls were needed to avoid discard and protect human health and the environment even in the case of intra-company recycling. Some of these commenters preferred such reclamation to be regulated under the proposed conditional exclusion for hazardous secondary materials transferred for the purpose of reclamation. This measure would ensure that generators would have to perform reasonable efforts and that reclaimers would have to obtain financial assurance. Other commenters suggested additional notification and recordkeeping requirements for any hazardous secondary materials transported off-site.

EPA's Response: Same-Company Exclusion

After evaluating these comments, the Agency has decided to retain "same-company" recycling under the exclusion for hazardous secondary materials legitimately reclaimed under the control of the generator. We do not believe that facilities exchanging hazardous secondary materials within the same corporate structure should be subject to the requirements for our exclusion at § 261.4(a)(24), as long as appropriate control of the recycling process is maintained. In particular, it is unnecessary for the generator to perform reasonable efforts on the reclaimer, because the generator is likely to be knowledgeable about the reclaimer's ability to recycle the hazardous secondary materials properly and legitimately. Similarly, if the generator and reclaimer are part of the same corporate structure and if common control is maintained over the policies of both facilities, there are strong incentives to ensure that the hazardous secondary materials are properly and legitimately reclaimed, thus making a financial assurance requirement for the reclaimer unnecessary.

In response to commenters who suggested additional notification and recordkeeping requirements, we note that the Agency is revising our proposed requirements for notification and recordkeeping for all exclusions promulgated today. These revisions are discussed in sections VII.C. and VIII.C. of this preamble.

Comments: Certification of Same Company

Some commenters argued that no certification should be necessary when hazardous secondary materials are sent between the same or related companies because generator knowledge of the materials and the potential CERCLA liability should suffice to ensure safe and legitimate recycling. Other commenters supported a certification provision, but suggested alternative language that they stated would be more compatible with generator control. Still other commenters disagreed with our proposed requirement for certifying that the generator and reclaimer of hazardous secondary materials were under the same ownership and that the owner corporation must acknowledge responsibility for the safe management of the hazardous secondary materials.

According to these commenters, under existing corporate law, parent companies do not (and sometimes cannot) assume legal liability for their subsidiaries. EPA's proposed certification requirement regarding the owner company would therefore have little legal effect and could actually discourage same-company recycling. Some of these commenters suggested that either the generator or the reclaimer should acknowledge responsibility for properly managing the hazardous secondary material, not a third-party owner corporation.

Other commenters said that the proposed requirement that the hazardous secondary materials be generated and reclaimed by the same "person" under 40 CFR 260.10 was not appropriate because a corporation and its affiliates or subsidiaries are legally distinct and not the same "person." Therefore, one commenter suggested that we refer to related "facilities" rather than "companies." Some other commenters suggested that we focus on the concept of "control" rather than "ownership."

EPA's Response: Certification of Same Company

After evaluating these comments, EPA does not agree with the commenters who argued that a certification requirement is not needed. We note that the purpose of the certification is not to directly ensure proper and legitimate recycling, but to clarify responsibility for the hazardous secondary materials and to demonstrate to regulatory officials that the hazardous secondary materials are not discarded and are within the terms of the generator-controlled exclusion. We are therefore retaining a certification requirement for this exclusion.

However, the Agency has also decided that its proposed certification language should be revised to avoid confusion and to ensure more effective generator control. We have therefore revised our proposed regulatory definition for this exclusion to refer to "facilities" rather than companies. Under the definition finalized today at 40 CFR 260.10, the reclaiming facility must be "controlled" by the generating facility or by a person (under § 260.10) who controls both the generating facility and the reclaiming facility. "Control," for purposes of this exclusion, means "the power to direct the policies of the facility, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate facilities on behalf of a different person shall not be deemed to "control" such facilities" (see § 260.10). Our final certification language requires the generating facility to certify that it controls the reclaiming facility, or that the generating facility and the reclaiming facility are under common control. In addition, the generator must certify that either the generating facility or the reclaiming facility acknowledges full responsibility for the proper management of the hazardous secondary materials. To avoid confusion, we have also amended the definition of "facility" at 40 CFR 260.10 to include facilities which manage hazardous secondary materials. Therefore, any reference to "facilities" in this rule also includes facilities which manage materials excluded under the regulations promulgated today.

EPA believes that this revised language more appropriately reflects the concept of "generator control" that underlies the exclusions at 40 CFR 261.2(a)(2)(ii) and 261.4(a)(23). Requiring that a generating facility control the reclaiming facility, or that both be under common control, ensures that there is an ongoing relationship between the generator and reclaimer and that the two facilities are more likely to be familiar with each others' waste management practices, thereby minimizing the possibility of discard. If there is no such relationship, the two facilities should not be eligible for this exclusion and the use of the transfer-based exclusion would be more appropriate. In addition, requiring the hazardous secondary material generator to certify that either the generating facility or the reclaiming facility acknowledges responsibility for the safe management of hazardous secondary materials ensures that the responsibility rests with the party most capable of assuming such responsibility. This

certification should be made by an official familiar with the corporate structure of both the generating and the reclaiming facilities and should be retained at the site of the generating facility.

Comments and EPA's Response: Application to Government Agencies and Universities

Some commenters requested that EPA clarify whether two government agencies (such as the Department of Defense and the Department of Energy) would be considered the same "person" under 40 CFR 260.10 if hazardous secondary materials are generated by one agency and reclaimed by another. In response, we note that for purposes of RCRA, the federal government is not a single "person"; rather, each agency or department would be considered a separate "person." We also note that under today's final rule, a federal agency that is a generating facility does not normally have the power to direct the policies of a different federal agency that is a reclaiming facility, nor is there a "person" under § 260.10 who directs the routine policies of both facilities. In certain situations, the two different federal agencies involved may wish to apply for a case-by-case non-waste determination under 40 CFR 260.30, as appropriate, or use the transfer-based exclusion.

Other commenters requested that EPA clarify whether the same-company exclusion extends to hazardous secondary materials that are generated and reclaimed at different facilities, when both facilities are owned by the same government agency or university, but operated by a contractor. In some of these situations, the same contractor operates both the generating facility and the recycling facility, but, in other situations, the generating facility and the reclaiming facility are operated by different contractors. In those situations where the generating facility and the reclaiming facility are both owned by the same government agency or university, the two facilities would be under common control because the agency or university in question has the power to direct the policies of both the generating facility and the reclaiming facility. Under this scenario, both facilities would therefore be eligible for the same-company exclusion, even if operated by different contractors. However, if the generating facility and the reclaiming facility were each owned by a separate government agency or university, they would not be eligible for this exclusion even if both facilities were operated by the same contractor, because the element of common control would be lacking. We have revised the certification language of 40 CFR 260.10 to reflect this approach. The parties involved may apply for a case-by-case non-waste determination under 40 CFR 260.30, as appropriate, or use the transfer-based exclusion.

3. Types of Tolling Arrangements Eligible

In its March 2007 supplemental proposal, the Agency proposed to exclude from the definition of solid waste certain hazardous secondary materials that are generated pursuant to a written contract between a tolling contractor and a toll manufacturer. Through the contract, the tolling contractor would arrange for the manufacture by the toll manufacturer of a product made from unused materials specified by the tolling contractor. To be eligible for the exclusion, the tolling contractor would have to retain ownership of and responsibility for the hazardous secondary materials that were generated during the course of the production of the product. EPA solicited comment on other types of contractual arrangements under which discard is unlikely to happen and which could appropriately be covered by the exclusion for generator-controlled hazardous secondary materials. For example, one company could enter into a contractual arrangement for a second company to reclaim and reuse (or return for reuse) the first company's hazardous secondary materials. The first company could create a contractual instrument that exhibits the same degree of control over how the second company manages the hazardous secondary materials as is found in a tolling arrangement (72 FR 14186).

Comments: Tolling Arrangements

Some commenters stated that tolling arrangements are incompatible with "generator control" and are best regulated under the proposed exclusion for materials that were transferred for legitimate reclamation. They argued that requirements such as reasonable efforts (by generators) and financial assurance (for reclaimers) were necessary to avoid discard in the case of off-site reclamation. Some of the commenters argued that the physical generator of the hazardous secondary material (in this case, the toll manufacturer) retains legal liability for the material. They stated that contracts which reallocated resources to address financial responsibility for mismanagement or mishap could contain loopholes that would allow tolling contractors to dispose of hazardous secondary materials or send them to a third party for reclamation.

Other commenters, on the other hand, urged EPA to expand the tolling exclusion to other types of contractual arrangements. A few commenters said that the exclusion should be allowed for any contract between a generator and a reclaimer where the generator was willing to retain ownership of and/or responsibility for the hazardous secondary materials. Other commenters mentioned specific contractual situations in which they argued the hazardous secondary materials in question were clearly handled as a commodity and discard was therefore highly unlikely. One example given was a facility that reclaims metals from electric arc furnace dust and then sends the metals back to steel mills to be reused. Another example was a facility that takes spent copper etchant from manufacturers of printed wiring boards and uses the material to make new copper compounds. Still another example was a facility that collects used paint purge solvent from auto body paint operations, reclaims it, and sells regenerated solvent back to the auto body facility.

EPA's Response: Tolling Arrangements

After considering these comments, the Agency has decided to retain the tolling exclusion, but not to broaden its scope. The exclusion will therefore be limited to situations where a tolling contractor contracts with a toll manufacturer to make a product from specified unused materials. We do not agree with those commenters who said that tolling contracts are not compatible with "generator control." The typical tolling contract contains detailed specifications about the product to be manufactured, including the management of any hazardous secondary materials that are generated and returned to the tolling contractor for reclamation. In addition, the tolling contractor will enter into a tolling contract with such requirements only if it has decided that the economic benefit from such recycling is justified. For these reasons, we do not believe that tolling arrangements should be subject to the conditions applicable to the transfer-based exclusion.

On the other hand, the Agency also does not agree with those commenters who urged that we should allow the generator-controlled exclusion for any hazardous secondary materials generated under a contract between a generator and a reclaimer. We believe that the exclusion should be limited to the types of tolling arrangements specified in 40 CFR 260.10. When hazardous secondary materials are

transferred off-site for reclamation, there is, in general, less likelihood of generator control, and, hence, more likelihood of discard, in the absence of conditions that ensure the hazardous secondary materials will be handled as valuable products. In these situations, additional requirements are needed for the Agency to determine that no discard has occurred. Conversely, in the specific situations included in the generator-controlled exclusion (on-site, same-company, and tolling reclamation), we believe that the generator is much more likely to be familiar with the reclaimer and to have powerful incentives to see that the hazardous secondary materials are reclaimed properly and legitimately. In these cases, the requirements that we have finalized today (notification, legitimate recycling, compliance with speculative accumulation limits, and containment) are sufficient for the Agency to determine that such hazardous secondary materials are not discarded. These requirements may not be sufficient in the case of unrelated generators and reclaimers who have a non-tolling type of contract.

To clarify the requirements for tolling contracts under today's rule, and to assist regulatory authorities in determining whether a facility is eligible for an exclusion under a tolling contract, EPA has also added a certification requirement to the definition of hazardous secondary material generated and reclaimed under the control of the generator in § 260.10 of the final rule. This provision would require the tolling contractor to certify that it has a written contract with the toll manufacturer to manufacture a product or intermediate which is made from unused materials specified by the tolling contractor, and that the tolling contractor will reclaim the hazardous secondary materials generated during the course of this manufacture. The tolling contractor must also certify that it retains ownership of, and responsibility for, the hazardous secondary materials that are generated during the course of the manufacture, including any releases of hazardous secondary materials that occur during the manufacturing process. This certification should be made by an official familiar with the terms of the written contract and should be retained at the site of the tolling contractor.

In response to those commenters who described specific types of contractual arrangements that should be eligible for the generator-controlled exclusion, we note that facilities operating under such arrangements may apply for a non-waste determination under § 260.30, as appropriate. In some cases, commenters did not include enough detail about the contracts to enable the Agency to draft appropriate regulatory language. In other cases, the arrangement suggested was industry-specific and the conditions or requirements suggested by the commenters were not appropriate for an exclusion covering many different types of facilities. We believe that such arrangements are best evaluated on a case-by-case basis by the regulatory authority, possibly under 40 CFR 260.30, to determine their eligibility for exclusion.

Comments: Terms Used in Tolling Exclusion

One commenter suggested that we replace the term "batch manufacturer" with "toll manufacturer." This commenter stated that "batch manufacturer" was too broad and generally referred to a facility which engages in a distinct, short production campaign, not necessarily tied to a two-party contractual agreement. "Toll manufacturer," this commenter stated, is a subset of batch manufacturers and generally refers to a party which undertakes manufacturing pursuant to a contract with a tolling contractor, such as the arrangement we proposed. This commenter also requested that EPA clarify that the "product" required to be produced under a tolling contract can include intermediates, as well as final products, and that materials used in toll manufacturing were sometimes specialty chemicals or intermediates that could not be described as "raw materials," as would be required under our proposal. They suggested that we use the term "specified materials" instead.

EPA's Response: Terms Used in Tolling Exclusion

The Agency agrees that the suggested term "toll manufacturer" is more accurate and has revised the definition in § 260.10 accordingly. EPA also agrees that a product produced under a tolling contract can be an intermediate or a final product and has revised the definition in § 260.10 to refer to "production of a product or intermediate." Finally, the Agency agrees that the term "raw materials" may not be accurate, but prefers to use the term "unused materials" instead of "specified materials," because we believe that term encompasses specialty chemicals and intermediates without also including spent or secondary materials, which are not included in our definition of toll manufacturing.

B. Restrictions on Exclusions for Hazardous Secondary Materials Managed Under the Control of the Generator in Land-Based Units and Non-Land-Based Units

In its March 2007 supplemental proposal, the Agency proposed in 40 CFR 261.4(a)(23)(i) that hazardous secondary materials generated and legitimately reclaimed under the control of the generator must be contained if they were stored in land-based units (72 FR 14216). EPA proposed to use the existing definition of land-based units and defined a land-based unit in 40 CFR 260.10 as a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, or underground mine or cave. EPA did not propose a containment limitation for such materials if they were stored in non-land-based units.

EPA did not propose a regulatory definition of "contained," nor did we propose specific performance or storage standards. We stated that whether hazardous secondary materials are contained would be decided on a case-by-case basis, and that such materials are generally contained if they are placed in a unit that controls the movement of the hazardous secondary materials out of the unit. We solicited comment on whether additional requirements might be necessary to demonstrate absence of discard when hazardous secondary materials were recycled under the control of the generator. In particular, we asked whether additional requirements for storage would be appropriate, such as performance-based standards designed to address releases to the environment. We also indicated that if commenters believed such requirements were appropriate, they should specify the technical rationale for each requirement suggested and why the requirement is necessary if the hazardous secondary material remains under the control of the generator.

Comments and EPA's Response: Definition of "Land-Based Unit"

EPA received several comments expressing confusion over our proposed definition of "land-based unit." We proposed land-based unit to mean "a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, or underground mine or cave." Commenters noted that including "landfills" and "injection wells" was not necessary for the proposed exclusion, since these management units are clearly inappropriate for

hazardous secondary materials intended for recycling. Furthermore, commenters also noted that Subtitle C defines these terms waste-centrically (i.e., as a unit that handles "waste" in one way or another). This could create confusion because a hazardous secondary material would not, by definition, be "managed" (or "stored") in one of these "waste" units. EPA agrees with these comments, and in the final rule has defined "land-based unit" as an area where hazardous secondary materials are placed in or on the land before recycling. However, as discussed below, the Agency has clarified that land-based units that are production units are not included in the definition.

Comments and EPA's Response: Mineral Processing Industry

Some commenters asserted that the Agency has no jurisdiction over land-based production units in the mineral processing industry. As previously stated, EPA agrees that the Agency does not regulate the production process. (*See* 63 FR 28580). Accordingly, EPA has clarified the definition of "land-based unit" to clarify that production units are not included in that definition. However, these commenters also asserted that EPA cannot legally require containment for these units. To the extent that these comments are intended to mean that EPA cannot regulate material that has been released into the environment, these comments are addressed in section XV.C. of this preamble, and also in the response to comments document in the record for this rulemaking.

Comments: Standards for Units (Both Land-Based and Non-Land-Based)

Other commenters, however, were opposed to allowing any land-based storage, at least without a RCRA Part B permit or strict requirements, such as secondary containment, leak detection measures, regular inspections, monitoring, or financial assurance. Most of these commenters did not appear to distinguish between land-based units under the generator-controlled exclusion and those under the exclusion for hazardous secondary materials transferred for reclamation; presumably, they wanted the same conditions for both.

Regarding non-land-based units such as tanks, containers, or containment buildings, some commenters agreed with EPA's approach, but other commenters preferred minimum storage standards for these units. Some commenters wanted Subtitle C standards to apply. Other commenters believed that the RCRA hazardous waste requirements were not necessary, but suggested other standards, such as requiring tanks to be in good condition, to be compatible with the stored material, to have secondary containment, or to be subject to routine inspections.

EPA's Response: Standards for Units (Land-Based and Non-Land-Based)

After evaluating these comments, the Agency has decided not to add performance standards or other requirements for managing hazardous secondary materials excluded under any of the exclusions promulgated today (§§ 261.2(a)(2)(ii), 261.4(a)(23), or 261.4(a)(24)). Such detailed measures are unnecessary for hazardous secondary materials that are handled as valuable products that are destined for recycling. Under today's rule, regulatory authorities can determine whether such materials in a unit are contained by considering all such site-specific circumstances. For example, local conditions can greatly affect whether hazardous secondary materials managed in a surface impoundment are likely to leak and cause damage, and, therefore, whether the unit could be considered contained. Similarly, facilities may employ such measures as liners, leak detection measures, inventory control and tracking, control of releases, or monitoring and inspections. Any or all of these practices may be used to determine whether the hazardous secondary materials are contained in the unit.

EPA also believes that detailed standards are not necessary to determine that valuable materials destined for recycling are not discarded when managed in non-land-based units. As with land-based units, the regulatory authorities can identify hazardous secondary materials that have been released from the unit and determine that the released material is discarded. To clarify this approach and to facilitate its implementation, however, EPA has revised its regulatory language to require that hazardous secondary materials that are generated and reclaimed under the control of the generator and managed in non-land-based units must also be contained (§ 261.4(a)(23)(i)).

Comments and EPA's Response: State Regulatory Program-Compliant Units

A few commenters indicated that hazardous secondary materials managed in units complying with state regulatory programs to address releases should be considered contained. Because of the variety of such programs, and because the Agency has not conducted an in-depth evaluation of such state requirements, we are not adding a definition of "contained" that would incorporate this suggested element. However, regulatory authorities may consider compliance with such requirements as one of the factors in determining whether the hazardous secondary materials are contained in the units.

Comments: Releases

In the March 2007 supplemental proposal, the Agency stated that hazardous secondary materials that remain contained in these units would still meet the terms of the exclusion even if a release occurred, unless the hazardous secondary materials are not managed as a valuable product, and, as a result, a significant release from the unit takes place. If such a significant release occurred, the hazardous secondary material remaining in the unit may be considered a solid and hazardous waste. Some commenters noted that a series of small releases from a unit could occur over time, causing cumulative environmental harm even though no single release was significant in terms of volume. These commenters said that such a series of releases should generally lead to the conclusion that the hazardous secondary material remaining in the unit was a waste.

EPA's Response: Releases

EPA agrees with the comment concerning small releases from a unit over time. Thus, a "significant" release is not necessarily large in volume, but would include an unaddressed small release from a unit that, if allowed to continue over time, could cause significant damage. Any one release may not be significant in terms of volume. However, if the cause of such a release remains unaddressed over time and hazardous secondary materials are managed in such a way that the release is likely to continue, the hazardous secondary materials in the unit would not be contained. For example, a rusting tank or containers that are deteriorating may have a slow leak that, if unaddressed, could, over time, cause a significant environmental impact. Similarly, a surface impoundment with a slow, unaddressed leak to groundwater could, over time, result in significant damage. Another example would be a large pile of lead-contaminated finely ground material without any provisions to prevent wind dispersal of the particles. Such releases, if unaddressed over time and likely to continue, would mean that the hazardous secondary materials remaining in the unit were not being

managed as a valuable raw material, intermediate, or product and that the materials had been discarded. As a result, the hazardous secondary materials in the unit would be hazardous wastes and these units would be subject to the RCRA hazardous waste regulations.

XVII. Major Comments on the Exclusion for Hazardous Secondary Materials Transferred for the Purpose of Legitimate Reclamation

A. Status of Facilities Other Than the Generator or Reclaimer ("Intermediate Facilities")

Comments: Intermediate Facilities

In its March 2007 supplemental proposal, EPA requested comment on its proposal that under the proposed exclusion for hazardous secondary materials transferred for reclamation, such materials would have to be transferred directly from the generator to the reclaimer and not be handled by anyone other than a transporter.

EPA received many comments on this provision. Some commenters supported the provision as proposed because they were concerned that if hazardous secondary materials were transferred to a "middleman," the generator would not have a reasonable understanding of who would reclaim the hazardous secondary materials and how they would be managed and reclaimed. If the generator was unable to ascertain whether the hazardous secondary materials in question could be properly and legitimately recycled, the materials should be considered discarded.

Other commenters objected to this proposed limitation. They argued that many persons who generate smaller quantities of hazardous secondary materials need help in consolidating shipments to make reclamation economically feasible. Some of these commenters also argued that intermediate facilities provided valuable assistance to generators by helping them properly transport, package, and store material, and by helping them find responsible reclaimers. These commenters believed that EPA's proposed limitation could discourage reclamation by persons who generate smaller quantities of such hazardous secondary materials.

Most of the commenters who suggested that intermediate facilities be eligible for the exclusion also suggested conditions for these facilities. These conditions included requiring the generator to select the reclaimer, requiring the generator to perform reasonable efforts on the intermediate facility, as well as the reclaimer, and requirements for notification and recordkeeping. A few commenters argued that intermediate facilities should be required to have a RCRA Part B permit or interim status.

EPA's Response: Intermediate Facilities

After evaluating these comments, the Agency has decided that intermediate facilities storing hazardous secondary materials should be eligible for the exclusion at 40 CFR 261.4(a)(24) under certain conditions. We believe that such facilities make it easier for generators that generate smaller quantities of hazardous secondary materials to send these materials for reclamation and that storage at such facilities under the conditions designed to address discard is completely consistent with handling the hazardous secondary materials as valuable commodities. To this end, we have added a new definition of "intermediate facility" to 40 CFR 260.10. We note that this rule does not address "brokers" because that term is commonly understood to mean a person who helps arrange for the transfer of hazardous waste or hazardous secondary material, but does not take possession of the material or manage it in any way. Brokers that never take possession of hazardous secondary materials would not have been affected under the supplemental proposal, nor are they affected by today's rule.

Under today's rule, an intermediate facility is a facility that stores hazardous secondary materials for more than 10 days, other than a generator or reclaimer of such materials. If an intermediate facility treats the hazardous secondary materials or commingles it with other hazardous secondary materials or with hazardous waste, it would not be eligible as an "intermediate facility" as defined in § 260.10 under today's regulation. Under 40 CFR 260.42, intermediate facilities must submit the same notification required of generators and reclaimers of hazardous secondary materials transferred for reclamation. In addition, under § 261.4(a)(24)(v) of today's rule, generators must also perform appropriate reasonable efforts on the intermediate facility, as well as the reclamation facility, and generators are responsible for the ultimate selection of the reclamation facility. These requirements will ensure that the intermediate facility is handling the hazardous secondary materials as a commodity.

Today's rule also requires intermediate facilities to comply with the applicable requirements for reclaimers of hazardous secondary materials under 40 CFR 261.4(a)(24)(vi), including recordkeeping, storage of excluded materials, financial assurance, and speculative accumulation. The Agency believes that these conditions are fully sufficient to ensure that hazardous secondary materials stored at intermediate facilities are handled as valuable products and not discarded. Therefore, we do not agree with those commenters who suggested that intermediate facilities should be required to operate under Part B permits or interim status.

The Agency notes that in some cases, the intermediate facility performs the physical measures associated with generator reasonable efforts to ensure that the reclaimer will properly and legitimately recycle the hazardous secondary materials. These measures may include facility inspections and preparation of audits. In those cases, the generator must carefully review such measures to ensure that any information provided is credible.

Under today's rule (*see* 40 CFR 261.4(a)(24)(ii)), if hazardous secondary materials are stored for 10 days or less at a transfer facility, the transit is not subject to the requirements applicable to intermediate facilities under the transfer-based exclusion. Instead, it must only be packaged in accordance with applicable DOT requirements. The Agency considers hazardous secondary materials stored by transfer facilities for short periods of time to be in transit, similar to hazardous waste stored by similar facilities for the same time period. They are therefore not discarded. We have revised the existing definition of "transfer facility" at 40 CFR 260.10 to clarify that such facilities may store hazardous secondary materials, as well as hazardous waste. The generator need not perform reasonable efforts on such facilities, nor must such facilities comply with the requirements applicable to reclaimers of hazardous secondary materials under 40 CFR 261.4(a)(24)(vi). In addition, hazardous secondary materials at transfer facilities may be repackaged from one container to another (e.g., the materials may be consolidated from smaller to larger containers) or transferred to different vehicles for shipment (*see* 45 FR 86966, December 31, 1980). However, different hazardous secondary materials may not be mixed together. In addition, if there is a release of the hazardous secondary materials at the transfer facility that is not cleaned up immediately, such materials become solid waste, and, if they exhibit a hazardous characteristic or are specifically listed by EPA, a hazardous waste as well. Depending on the nature of the release, the hazardous secondary materials remaining in the unit could

also become a solid and hazardous waste subject to Subtitle C regulation (for a discussion of when such units are considered "contained," see section XVI of this preamble).

B. Reasonable Efforts Condition

EPA received many comments on the condition proposed in the March 2007 supplemental proposal that generators "make reasonable efforts to ensure that the reclaimer intends to legitimately recycle the material and not discard it * * * and that the reclaimer will manage the material in a manner that is protective of human health and the environment." This condition was proposed to be fulfilled by hazardous secondary material generators sending hazardous secondary materials to any reclamation facility not operating under a RCRA Part B permit or interim status standards, and the condition would have to be satisfied prior to transferring the hazardous secondary materials to the reclamation facility (72 FR 14190–14194). Below is a summary of six major issues raised in the comments and EPA's responses. For more detailed comment responses, please see *Revisions to the Definition of Solid Waste Response to Comments Document.*

Comments: An Objective Standard for Reasonable Efforts

As proposed, the codified reasonable efforts provision for generators was a general standard, rather than a more specific standard with clearly stated requirements. EPA requested comment on establishing a more objective standard for making reasonable efforts, such as requiring generators to answer the questions discussed in the preamble. EPA acknowledged that creating an objective standard could provide generators and overseeing agencies with more regulatory certainty and requested comment on codifying the six questions outlined in the preamble.

EPA received many comments in support of an objective standard for satisfying the reasonable efforts condition. Commenters suggested that a minimum standard was needed to determine whether a generator fulfilled the condition and as a way of determining what is "reasonable." Many of these commenters also believed that a standard that generators must meet was necessary to delineate liability for hazardous secondary materials that are transferred from a generator to a reclamation facility. In contrast, several commenters suggested that formalizing a minimum standard which all generators must meet is inappropriate since recycling is inherently case-specific.

On the issue of whether to codify a reasonable efforts standard, which several commenters addressed separately from the development of a standard, EPA received many comments both in support of and against codification. A large number of commenters addressed this issue by commenting on the six questions EPA discussed in the preamble. Those in favor of codification believed that establishing a minimum, objective standard was important in order to provide regulatory certainty for generators regarding what is "reasonable" and for overseeing agencies needing to make consistent determinations that the condition is satisfied. Industry commenters responding in support of codification believed the six questions resemble existing audit questions, and would therefore be straightforward to answer and satisfy. Recyclers and waste management commenters believed that small quantity generators would benefit from having a clear standard and also that the standard would make additional clarifying guidance unnecessary in the future. Some commenters conditionally supported codification contingent upon severance of RCRA liability for generators that meet the minimum condition. These commenters supported EPA's proposal to create what they termed as a "safe harbor" for generators that, having met the reasonable efforts condition, would be shielded from any future RCRA liability caused by environmental damage at a reclamation facility.

On the other hand, several commenters (mostly from the generating industry) opposed codifying a standard. They believed a standard would be unnecessary since generators that already audit recyclers have existing criteria for making reasonable efforts. Some of these commenters also stressed a need to maintain flexibility in their activities and to avoid additional burdensome requirements. One state commenter requested that EPA allow generators to establish their own standard for reasonable efforts so that generators will weigh their own level of risk and ultimately be responsible for their decisions. This commenter also believed that one standard is impractical for both "a large industrial generator of a highly toxic hazardous secondary material" and "a small generator of a barely ignitable hazardous secondary material."

Of the commenters that responded to the March 2007 supplemental proposal to codify a standard for reasonable efforts, many also provided comments on the six questions in the preamble. In general, commenters were divided between supporting and opposing codification of all six questions, but responses were generally favorable when commenters discussed the value of individual questions within a reasonable efforts inquiry. One exception to this is with respect to proposed question (B) ("Does the reclamation facility have the equipment and trained personnel to properly recycle the hazardous secondary material?"), which several commenters believed to be difficult for a hazardous secondary material generator to answer with existing knowledge. A few commenters also noted that questions (D) and (E), the two proposed questions pertaining to legitimacy within the preamble discussion of reasonable efforts, did not represent the legitimacy "factors to be considered" that were proposed in the March 2007 supplemental proposal at 40 CFR 261.2(g). These commenters suggested that a reasonable efforts inquiry should include all criteria and factors in the proposed legitimate recycling requirement. A few commenters also suggested including an additional question about the financial health of a reclaimer.

EPA's Response: An Objective Standard for Reasonable Efforts

After evaluating these comments, EPA agrees that an objective minimum standard is appropriate and necessary for hazardous secondary material generators to determine that they have fulfilled the reasonable efforts condition. We believe that without such a standard, both generators and the regulatory agencies would experience difficulty in determining whether the condition is met. However, in defining the standard, it would in no way limit a generator's ability to tailor and enhance its reasonable efforts inquiry to evaluate a particular industry or recycler.

We also agree with the commenters who stated that the six questions from the preamble to the March 2007 supplemental proposal, with two modifications noted below, serve as a minimum objective standard. Therefore, we are codifying them, with certain modifications. We strongly believe that any generator who takes advantage of today's transfer-based exclusion must be able to answer all reasonable efforts questions affirmatively for each reclamation facility (and intermediate facility, if such hazardous secondary materials are sent to such a facility) in order to demonstrate that its hazardous

secondary materials will be properly and legitimately recycled and not discarded. In EPA's view, a generator who is unable to satisfy the reasonable efforts condition has not demonstrated that its hazardous secondary materials are not discarded when recycled. The hazardous secondary materials would thus be ineligible for today's transfer-based exclusion.

With respect to question (4) ("Does the available information indicate that the reclamation facility and any intermediate facility that is used by the hazardous secondary material generator have the equipment and trained personnel to safely recycle the hazardous secondary material?"), we believe that its inclusion within reasonable efforts is appropriate and necessary since the question informs a generator's inquiry as to whether its hazardous secondary materials will be properly and legitimately recycled. If a reclamation facility were found to have inadequate equipment or untrained personnel, it would raise serious questions as to whether the facility would be engaged in proper recycling or discard. Without exploring this question, we believe that a generator cannot ascertain that a reclamation facility will properly and legitimately recycle its hazardous secondary materials. However, we also agree that, as drafted in the proposed rule, answering this question may require specialized knowledge and expertise. Accordingly, EPA is changing this question to allow the generator to rely on the reclamation facility to explain why its equipment and personnel are appropriate. Of course, the generator must have an objectively reasonable belief that the reclamation facility's equipment and trained personnel are adequate for safe recycling. Accordingly, if the equipment and personnel described by the reclamation facility would be, to an objective reasonable person, clearly inadequate for safe recycling of the generator's hazardous secondary material, then the generator would not have met this condition. However, EPA does not require nor expect the generator to have specialized knowledge or expertise of the recycling process. We also discuss in more detail how a generator can answer this question in section VIII.C.2. of this preamble.

As noted previously, we are codifying the questions with two modifications. The first modification to the questions is language that accommodates the inclusion of intermediate facilities within the transfer-based exclusion. As discussed in section VIII.C. of this preamble, if a generator sends hazardous secondary materials to an intermediate facility where they are stored for longer than 10 days prior to being transferred to a reclamation facility, the generator will need to perform reasonable efforts for both the intermediate facility and reclamation facility.

The second modification is to the questions pertaining to legitimate recycling activities. EPA acknowledges that one source of confusion for commenters regarding the relationship between the reasonable efforts condition and the legitimate recycling requirement may have been the two questions pertaining to legitimacy (proposed questions (D) and (E)) within the reasonable efforts preamble discussion and the proposed legitimacy requirement at 40 CFR 261.2(g). Questions (D) and (E) and the proposed regulatory language for legitimacy did not share the exact same wording, although both concepts were intended to be consistent. Furthermore, we understand the concern commenters raised that questions (D) and (E) did not represent the legitimacy "factors to be considered" that were proposed within 40 CFR 261.2(g). As a result, we have restructured the reasonable efforts questions pertaining to legitimacy to read as a single question that ensures that a reclamation facility receiving hazardous secondary materials intends to legitimately recycle the hazardous secondary materials. Because of changes to the legitimacy provision in this final rule as compared to the March 2007 supplemental proposal, this question now refers to the legitimacy requirement in § 260.43 of today's final rule.

Comments: Liability Related to Reasonable Efforts

EPA proposed the reasonable efforts condition as a way for hazardous secondary material generators to demonstrate that they met their regulatory obligation to ensure that their hazardous secondary materials, when transferred to a reclamation facility, would not be discarded. Based on our assessment of good recycling practices and the comments received, we believe that the reasonable efforts condition reflects current industry best practices of auditing or assessing reclamation facilities prior to entering into business relations; this is done to minimize potential regulatory and liability exposures and to demonstrate a commitment to environmental stewardship.

We received many comments related to liability and the reasonable efforts condition. Many commenters stated that making reasonable efforts to evaluate a reclaimer is a good method for limiting future liability and that many generators already employ some form of the practice. These commenters largely supported the provision. Other commenters expressed concern that the reasonable efforts condition is an unnecessary requirement since existing incentives, such as economic motivations and CERCLA liability, would cause a generator to perform evaluations of reclaimers without being mandated as a condition of the exclusion.

Additionally, EPA received comments about whether satisfying the reasonable efforts condition would sever a generator's regulatory liability if, after being sent to a reclamation facility, its hazardous secondary materials were discarded or involved in environmental damage. Several commenters (namely from industry) asked that EPA clarify that upon conducting a reasonable efforts evaluation of a reclamation facility, a generator would not be liable for a reclaimer's subsequent environmental violations or if a reclaimer's actions caused or contributed to some environmental harm or damage. Many of these commenters supported the codification of a reasonable efforts standard, provided that liability would be severed upon meeting the condition. Conversely, several commenters stated that generator liability should be maintained into the future regardless of satisfying the condition. In general, these commenters were concerned that hazardous secondary material generators could subvert RCRA liability by conducting incomplete and superficial evaluations of reclaimers, and that future environmental damage would result at reclamation facilities. A few of these commenters suggested that EPA clarify that a hazardous secondary material generator would be held liable for violating the condition of the exclusion into the future if it was shown that the generator did not conduct a thorough assessment of the reclaimer.

EPA's Response: Liability Related to Reasonable Efforts

EPA disagrees that the reasonable efforts condition is unnecessary in light of economic forces or CERCLA liability, which may motivate some generators to evaluate recyclers. We proposed the reasonable efforts condition as a way for hazardous secondary material generators to demonstrate that they are not discarding the hazardous secondary materials when sending them to a third party for reclamation. The language of the condition is intended to capture within the regulatory text how

responsible generators currently inquire and make decisions about recycling of hazardous secondary materials and how generators manage potential liability and regulatory non-compliance risks. Several commenters suggested that not all generators currently audit or evaluate reclamation facilities despite having economic interests and existing liability concerns. Analysis of the environmental problems study also suggests that CERCLA liability alone is not enough to prevent damage and that increased generator inquiry of reclamation facilities may help avoid future cases of abandonment or discard, residuals mismanagement, sham recycling, and improper management of hazardous secondary materials and recycled products.

By proposing the reasonable efforts condition, EPA intended to maintain RCRA liability for any hazardous secondary materials that are discarded. The condition clearly holds a generator accountable for determining that its hazardous secondary materials will not be discarded at a reclamation facility or any intermediate facility prior to transferring such materials to the facility. If a generator does not meet the condition, then the generator's hazardous secondary materials would not be eligible for the transfer-based exclusion and would be considered by EPA to be hazardous waste subject to the RCRA Subtitle C controls from the point of generation.

EPA did intend, however, that if the hazardous secondary materials generator had satisfied the reasonable efforts condition and discard subsequently occurred while hazardous secondary materials were under the control of the reclamation or intermediate facility, then the reclamation or intermediate facility, not the generator, would be liable under RCRA. EPA acknowledges that meeting this condition will not affect CERCLA liability. (*See* section XIII for more information on CERCLA liability.) We recognize commenters' concern that in order to satisfy the reasonable efforts condition and be released from RCRA liability, hazardous secondary material generators could be tempted into making incomplete evaluations of reclamation and intermediate facilities. EPA believes that codifying an objective reasonable efforts standard that all generators must meet in order to satisfy the condition will alleviate this concern (*see* section VIII.C. of today's rulemaking for more discussion). We also believe that specifying a standard that hazardous secondary material generators must satisfy will assist both regulatory agencies and the regulated community in determining whether the condition of the exclusion has been met or violated.

Comments: Relationship Between the Reasonable Efforts Condition and the Legitimate Recycling Requirement

EPA received a variety of comments on the relationship between the condition that hazardous secondary material generators must make a reasonable efforts inquiry of reclamation facilities and the requirement that hazardous secondary materials must be legitimately recycled. Several commenters stated that evaluating whether a reclaimer meets the legitimacy criteria should be part of a reasonable efforts inquiry to ensure that a generator's hazardous secondary materials are legitimately recycled. One commenter stated that while a hazardous secondary material generator would need to ensure that a recycling activity being considered is legitimate in order to protect its own liability interests, a legitimacy determination should be entirely separate from the reasonable efforts condition. Another commenter also stressed that, as a matter of good practice, many responsible generators already ensure that they send hazardous secondary materials to facilities engaged in legitimate recycling; therefore, a legitimacy evaluation within reasonable efforts is unnecessary. Furthermore, several commenters (mostly from industry) stated that a reasonable efforts condition is redundant since the proposed legitimate recycling requirement in 40 CFR 261.2(g) ensures that hazardous secondary materials transferred off-site are safely recycled.

EPA's Response: Relationship Between the Reasonable Efforts Condition and the Legitimate Recycling Requirement

EPA agrees with the commenters who stated that determining whether a recycling activity is legitimate is a sound practice and, based on comments we received, that many responsible generators already use existing legitimacy guidance as a way to manage their potential liability. The reasonable efforts condition is intended to assist generators in determining that their chosen reclamation facilities will properly and legitimately recycle the generators' hazardous secondary materials. Consequently, EPA strongly believes that the reasonable efforts condition must contain a provision that explicitly refers generators to their obligation to ensure that their hazardous secondary materials are legitimately reclaimed. Including legitimacy as part of the reasonable efforts condition means that if the generator made reasonable efforts to ensure that its hazardous secondary materials are legitimately recycled in a way that satisfies this condition and, subsequently, the reclamation facility fails to recycle the materials legitimately, the reclamation facility, not the generator, becomes liable for violating RCRA (*see* section VIII.E. for more information).

Comments: Periodic Updates to Reasonable Efforts

EPA requested comment on a requirement for making periodic updates to reasonable efforts, but did not propose an explicit time period. Some commenters favored requiring a specific time limit for updating the reasonable efforts provision, while others (a slightly smaller number) favored a flexible time frame for updating reasonable efforts, to be determined by the hazardous secondary material generator. The commenters who supported a specific time frame for updating the reasonable efforts condition included states, several representatives of the recycling industry, one industry generator, and one environmental organization. Several of these commenters stated that the hazardous secondary material generator needed to evaluate changes over time to the recycling facility (e.g., compliance status, financial assurance, permit renewals, impact of changes in recycling markets) to ensure that their hazardous secondary materials continue to be recycled properly and legitimately. Commenters also suggested that generators re-evaluate recyclers whenever the generator becomes aware of new, "material" information about or changes to a reclamation facility. These commenters asked EPA to set a minimum schedule for updating reasonable efforts. The suggested schedules ranged from annually to every five years.

Several industry generators and associations, as well as one waste management association, submitted comments in opposition to requiring specific periodic updates of the reasonable efforts provision. Commenters expressed concern that an arbitrary time frame would unnecessarily change generators' current schedules for auditing or making inquiries of recycling facilities. Several commenters suggested that schedules for evaluating reclaimers should vary from facility to facility and by industry and that a generator should be allowed to decide when to update reasonable efforts given a facility's history and the generator's familiarity

with the facility. One commenting organization cited its use of an internal risk-based audit schedule to determine when to review a reclamation facility. The stated criteria for judging the level of risk included facilities with lower financial health and the addition of "new processing capabilities and when ownership changes." Another generator requested EPA to "suggest, and not require, the frequency of periodic updates."

EPA's Response: Periodic Updates to Reasonable Efforts

EPA agrees with the comments stating that requiring generators to conduct specific periodic updates of the reasonable efforts provision is critical for ensuring that reclamation facilities continue to properly and legitimately recycle the hazardous secondary materials into the future. We believe that if a hazardous secondary material generator evaluated a reclamation facility (or an intermediate facility if hazardous secondary material is sent to such a facility) only once before the initial transfer of hazardous secondary materials for recycling, it would not provide adequate assurance to regulators that hazardous secondary material generators have met the reasonable efforts condition to ensure discard will not occur 5, 10, or 20 years into the future. We understand that generators often evaluate recyclers or intermediate facilities on a recurring schedule determined by the generator's particular interests, concerns, and experience. However, EPA believes that hazardous secondary material generators are also interested in having regulatory certainty regarding the time frame for which reasonable efforts must be conducted, rather than a completely discretionary "generator decides" approach, which will present many disagreements and challenges as to what a "reasonable" schedule is. We are also aware that many generators do not currently conduct reasonable efforts, let alone re-evaluate such facilities over time. For these reasons, we are requiring that hazardous secondary material generators update their reasonable efforts evaluation at least every three years, at a minimum. Based on public comments, this appears to represent general industry practice and to be within the average time frame for those generators who currently conduct environmental audits of facilities to which they send their hazardous secondary materials.

By specifying a time frame for periodic updates, EPA in no way intends to limit a generator to conducting evaluations only every three years. In fact, we acknowledge that shorter time frames could be appropriate for certain industries. Additionally, we would expect that any hazardous secondary material generator who has concerns about a reclamation or intermediate facility, or who gains new knowledge of significant changes or extraordinary situations at such facilities, would conduct reasonable efforts regardless of the minimum required update schedule.

Comments: Requiring Generators to Certify Reasonable Efforts

EPA solicited comment on requiring hazardous secondary material generators to certify that they made reasonable efforts prior to arranging for transport of hazardous secondary materials to be recycled. As discussed in the preamble to the March 2007 supplemental proposal, the certification statement would be a form of documentation necessary for each reclamation facility and would be signed and dated by an authorized representative of the generator company. We also provided certification language as an example.

Several commenters including recyclers, all responding states but one, and a few industry generators and associations, commented in favor of requiring hazardous secondary material generators to certify that they had met the reasonable efforts condition. All commenters that responded regarding the example certification statement supported the language. A few commenters reiterated that generators must certify reasonable efforts for each reclamation facility and that certification should not be necessary for RCRA Part B permitted facilities. One commenter requested that the certification must be made "prior to implementing exempt operations." Another commenter believed that a certification statement would improve the enforceability of the reasonable efforts condition. A generator that currently audits its waste facilities stated that "a letter signed and dated by the department manager is mailed to the audited facility stating the results of the audit," and that the letter should act as a certification. Another commenter suggested that given the large number of facilities for which reasonable efforts are required, having a company representative, as opposed to an "authorized representative," sign and date a certification should be sufficient and would be less burdensome. One recycler requested that the generator certification and signature be built into the one-time notification that EPA is requiring for the exclusion.

A smaller number of comments from generators opposed the certification requirement. A few generators found the certification statement to be overly burdensome and stated that it would stifle the use of third-party reclaimers. One generator, who currently audits reclamation facilities, stated it could not certify the accuracy of information prepared by third parties, nor could it certify responses by reclamation facilities to questions (B) through (E), which EPA discussed in the preamble. Another generator responded that without further clarification as to the minimum requirements for satisfying reasonable efforts, the generator could not certify that the condition was met. A commenter also suggested that requiring certification of reasonable efforts for reclamation facilities that recycle hazardous secondary materials was unnecessary if certification is not required for the storage, treatment, and disposal of hazardous waste.

EPA's Response: Requiring Generators To Certify Reasonable Efforts

After evaluating the comments, EPA has concluded that certifying the reasonable efforts provision is a necessary and minimally burdensome requirement for ensuring that the reasonable efforts condition is met prior to transferring the hazardous secondary materials to a reclamation facility. We also strongly believe that requiring the signature of an authorized representative of the generator company, who can be any appointed company representative, is critical for ensuring accountability for satisfying the condition. In the event of an enforcement action, we believe that the certification will lend support to hazardous secondary material generators needing to prove that the reasonable efforts condition was met. Therefore, in today's final rulemaking, we are finalizing a requirement that hazardous secondary material generators must certify that reasonable efforts were made for each reclamation and intermediate facility prior to transferring hazardous secondary materials to such facilities.

With respect to those commenters who opposed certification and specifically argued that requiring such certification would stifle the use of third-party auditors, it is our understanding that third-party auditors do not generally draw any conclusions based on their audits, but simply report the results. In addition, the reasonable efforts condition requires that the hazardous secondary material generator decide whether a reclaimer is acceptable. Therefore, we disagree with

those commenters who stated that requiring a certification would constitute a significant new burden. Rather, EPA believes that requiring a hazardous secondary material generator to certify the reasonable efforts condition would provide them the flexibility to use audits or other information necessary in certifying that the condition of the exclusion was met. We find that the commenter example of an existing practice of sending a letter with audit results to an audited facility would need to include the certification language in 40 CFR 261.4(a)(24)(v)(C)(2) in order to meet the reasonable efforts condition.

Comments: Documenting of Reasonable Efforts

While EPA proposed that generators conduct reasonable efforts before sending hazardous secondary materials to the reclamation facility, we did not propose that documentation records must be kept of such demonstrations. However, EPA requested comment on whether to require hazardous secondary material generators to maintain documentation at the generating facility demonstrating that the reasonable efforts condition was satisfied prior to transferring the hazardous secondary materials to a reclamation facility. No form of documentation or format was specified, although EPA did cite audits as one type of documentation that could be relevant. Additionally, EPA requested comment on whether hazardous secondary material generators should be required to maintain certification statements that reasonable efforts were conducted for each reclamation facility to which the generator transferred the hazardous secondary materials to be reclaimed.

A majority of commenters supported a requirement that generators maintain documentation of reasonable efforts. A few commenters asked that documentation be kept on-site, while a few commenters asked that the documentation could be kept at a headquarters or other off-site location. Other commenters specifically requested that EPA not specify a location for the documentation. Commenters in favor of this requirement stated that documentation would be necessary for showing the basis for the reasonable efforts determination, as well as for improving the enforceability of the condition. A few commenters suggested that documentation be maintained for three years and one industry commenter asked that EPA set a time requirement specifying how long such documentation must be kept.

On the other hand, a few commenters were opposed to a documentation requirement. These commenters cited the confidential and proprietary nature of the audits and reports used by generators for making reasonable efforts and stated they did not believe they should share this information with regulators. A few commenters, including one state, also argued that a certification statement of having made reasonable efforts, signed by an authorized representative of the generator company, would provide adequate documentation that reasonable efforts were made. One state commenter also suggested that it would be difficult for states to enforce the requirement of documentation, presumably because EPA proposed that "any credible evidence available" could be used to demonstrate that the condition is met.

EPA's Response: Documenting Reasonable Efforts

After evaluating the comments, EPA has concluded that it is important for hazardous secondary material generators to produce documentation to demonstrate that the reasonable efforts condition has been met prior to transferring hazardous secondary materials to a reclamation and/or intermediate facility. We do not believe it is necessary to mandate that, for example, audits are specifically required for documentation and we prefer to maintain some flexibility in terms of the format for documenting the condition based on commenter input and the knowledge that each reasonable efforts inquiry will be unique. This flexibility for documentation is also in response to commenter concern about the confidentiality of audits. We do not believe that this flexibility will in any way impact the ability of regulatory authorities to determine whether the condition is satisfied. We believe that the certification statement is critical for ensuring accountability for satisfying the condition and that the act of making reasonable efforts is in fact genuine. We believe this requirement helps generators support their position that hazardous secondary materials have not been discarded and helps regulators determine whether a generator has satisfied this condition. Since updates of reasonable efforts are required at a minimum of every three years, EPA believes that such generators should maintain documentation for a minimum of three years to show that the requirement to update reasonable efforts has been satisfied.

We understand that audits and evaluations of reclamation facilities are not always kept on-site and may be maintained at a generator's headquarters or at another off-site location. For this reason, EPA is requiring that documentation must be made available, upon request by a regulatory authority, within 72 hours, or within a longer period of time as specified by the regulatory authority. We understand that in the age of near-instantaneous communication, a hazardous secondary material generator that performed reasonable efforts prior to transferring hazardous secondary materials should be able to retrieve documentation with relative ease. We also note that time frames for producing documentation are generally determined by regulatory authorities on a case-by-case basis and time frames are clearly outlined by authorities within RCRA Section 3007 information request letters.

C. Financial Assurance Requirement

In EPA's March 2007 supplemental proposal, EPA proposed that reclamation facilities receiving and recycling hazardous secondary materials under the transfer-based exclusion be required to demonstrate financial assurance in accordance with the requirements of subpart H of 40 CFR part 265. As part of this proposal, EPA sought comment on whether the existing subpart H requirements should be modified in some way specifically for reclamation facilities affected by the proposed exclusion. EPA also requested comment on whether EPA should tailor the costing requirements associated with the subpart H financial assurance requirements. Because of these comments, EPA has made several revisions to the financial assurance condition, as explained below.

Comments: Financial Assurance

Many commenters supported EPA's proposal that reclamation facilities receiving and recycling hazardous secondary materials under the transfer-based approach be required to demonstrate financial assurance in accordance with the current requirements of subpart H of 40 CFR part 265 in order to demonstrate that the hazardous secondary materials are not being discarded. Commenters argued that without a codified financial assurance requirement, recyclers that mismanage hazardous secondary materials could simply close their doors (as has happened previously) and abandon their hazardous secondary materials, leaving an environmental problem for the public to address and imposing the financial burden of cleaning up recycling facilities on states and local authorities, which may not have the resources to do so.

Commenters also noted that EPA's environmental problems study shows that the primary cause of damage incidents has been the business failure of recycling facilities. Without financial assurance, the commenters argue that states and taxpayers have been left with the bill for cleaning up these abandoned sites. Finally, these commenters stated that a recycling facility that does not meet the financial test, cannot obtain an insurance policy or other financial instrument, and does not have the resources to establish a trust fund or other mechanism, should not be handling hazardous secondary materials under the conditional exclusion.

Other commenters supported EPA's proposal on financial assurance, but also made suggestions for modifications. One commenter recommended that a financial assurance program be developed specifically for reclaimers. A few commenters recommended that reclamation facilities taking advantage of the exclusion maintain a closure plan that would be available for review, upon request, that substantiates and verifies the amount of financial assurance required.

Still other commenters stated that reclamation facilities that receive hazardous secondary materials from off-site generators under the transfer-based approach should not be held to the same financial assurance standards as facilities with permits to manage hazardous waste. Instead, the financial assurance requirements for recycling facilities should reflect the relatively lower risks associated with the manufacturing/recycling activities. Commenters claimed that reclamation facilities are essentially processing raw materials for beneficial use as opposed to RCRA-permitted facilities that are treating, storing, and disposing hazardous waste.

Finally, some commenters disagreed completely with EPA's approach to financial assurance. Commenters stated that EPA lacks the authority to subject facilities to the requirements or conditions when using hazardous secondary materials in production operations in which these materials are never discarded. Commenters stated that proposed conditions for the exclusion do not define the absence of discard and would effectively impose a waste management requirement upon a non-waste.

EPA's Response: Financial Assurance

EPA finds those comments that support the financial assurance condition persuasive and agrees with their conclusions. Requiring financial assurance for reclamation facilities (and intermediate facilities, which are included in the final rule) operating under the transfer-based exclusion is appropriate and reasonable for the Agency to determine that the hazardous secondary materials managed at these facilities are not discarded and is supported by the findings of the recycling studies conducted as part of this rulemaking effort. Financial assurance as a condition will ensure that the reclamation and intermediate facilities either have the financial wherewithal themselves, as demonstrated by qualifying for self insurance under the financial test, or that funds from a third party will be available to ensure that the hazardous secondary materials will not be abandoned. An owner or operator who must fully fund a trust to cover the retirement cost estimate will be careful not to discard the hazardous secondary materials so that he may recover the funds from the trust. Sureties, banks providing letters of credit and insurers will screen applicants to ensure that they are only providing assurance for good risks who are unlikely to abandon or discard such materials, thus demonstrating that the hazardous secondary material is not being discarded. As noted by the commenters, at least 138 of the 208 damage cases were firms that had gone out of business and abandoned the "hazardous secondary material," a material that they presumably believed could be reclaimed.

In addition, the market forces study indicates that recyclers of hazardous secondary materials can behave differently from traditional manufacturers due to differences in the economic forces and incentives involved in recycling. Unlike manufacturing, where the cost of raw materials or intermediates (or inputs) is greater than zero and revenue is generated primarily from the sale of the output, some models of hazardous secondary materials recycling involve generating revenue primarily from receipt of the hazardous secondary materials. This situation can lead to over-accumulation and abandonment of hazardous secondary materials, particularly in cases where the product of the recycling process has low value, the prices are unstable, and/or the firm has a low net worth.

By requiring financial assurance, the public and federal, state and local governments can have confidence that the recycler's business model takes these market factors into consideration and that it will therefore not abandon the hazardous secondary materials, even if unforeseen market changes occur. The successful recycling study indicated that one of the main reasons that generators audit recyclers is to evaluate their financial health and resources to respond to accidents or other problems that could cause adverse environmental or human health consequences. This is primarily because of the joint-and-several liability provisions of CERCLA, under which a generator becomes a "responsible party" obligated to pay (in part or in whole) for remediation expenses if (in this example) a recycler to whom he sent recyclable hazardous secondary materials were to create contamination problems, but lacked the resources to pay for the cleanup.

Because American manufacturers have considerable experience with these types of CERCLA liability issues, evaluating the financial health of the reclamation facility before shipping recyclable hazardous secondary materials to them has become a standard business precaution for responsible generators. The condition for financial assurance thus can be seen as a way of addressing the same concern, thus ensuring that the reclamation and intermediate facility owner/operators who operate under the terms of this exclusion are financially sound and will not abandon or otherwise discard their hazardous secondary materials.

Thus, EPA disagrees with the commenters who argued that recycling hazardous secondary materials is, as a general matter, the same as processing raw materials for beneficial use. Because of the nature of these materials (i.e., hazardous spent materials and listed by-products and listed sludges), they are frequently more difficult to process than most raw materials, and the nature of the economics of the transfer of these materials can create an incentive for discard. Requiring financial assurance is essential for helping to define those situations where the hazardous secondary material is not being discarded.

However, EPA agrees that some adjustments to the existing 40 CFR part 265 financial assurance requirements would help better tailor them to hazardous secondary material reclamation and intermediate facilities. The current hazardous waste financial assurance regulations include provisions (such as post-closure) not appropriate to hazardous secondary material units, and the terminology is directed towards permitted TSDFs. EPA also agrees that the regulations need to be more explicit as to the documentation requirements for the financial assurance cost estimate. The financial assurance requirements in 40 CFR part 265 subpart H in turn

reference and rely on certain requirements in the 40 CFR part 265 subpart G closure regulations. Although the hazardous secondary material units are not required to undergo Subtitle C closure, some of the provisions of 40 CFR part 265 subpart G are important to implementing 40 CFR part 265 subpart H and need to be clarified. As a convenience to the regulated community, EPA has placed the financial assurance requirements applicable to hazardous secondary materials in a stand-alone regulation (see 40 CFR part 261 subpart H). Substantively, these regulations generally mirror and include the same requirements as the 40 CFR part 265 financial assurance regulations, but they have been condensed and reframed to refer to reclamation and intermediate facilities rather than TSDFs and to directly incorporate (rather than just referencing) those aspects of 40 CFR part 265, subpart G that are necessary for implementing the financial assurance condition.

For further discussion of how the financial assurance condition operates and how the provisions map to the requirements in 40 CFR part 265, see section VIII.C of today's preamble.

D. Ability of Excluded Reclamation Facility To Accept Manifested Hazardous Waste

In the March 2007 supplemental proposal, EPA proposed that reclaimers receiving hazardous secondary materials from generators that continue to manage such materials under the current hazardous waste regulatory system would still be able to claim the exclusion for those hazardous secondary materials. In essence, this would allow manifested hazardous waste to be sent to an unpermitted facility, as long as that facility met the conditions of the exclusion.

Comments and EPA's Response: Excluded Reclamation Facilities Accepting Manifested Waste

Most of the commenters on this issue raised serious concerns about this provision, among other things arguing the fact that it would be unworkable. Commenters also raised concerns about the generator's liability under such a situation, particularly if the reclaimer failed to inform the generator that its hazardous waste would be managed under the exclusion. Commenters also noted that the lack of a requirement for "reasonable efforts" on the part of the generator is contrary to the basic premise of the exclusion, which is that generators will be responsible and ensure reclaimers properly manage and recycle the hazardous materials.

After considering the comments received, EPA is not allowing reclaimers to manage manifested federal hazardous waste under the exclusion. Although this provision may have increased recycling opportunities, the fact that the hazardous secondary material generator manages the hazardous secondary materials as manifested hazardous wastes would have decoupled the exclusion from the underlying rationale that the materials are not discarded.

E. Imports and Exports

In the March 2007 supplemental proposal, the Agency proposed to exclude hazardous secondary materials that are exported from the United States for reclamation at a facility located in a foreign country, provided the hazardous secondary material generator complies with the generator requirements under the transfer-based exclusion (e.g., notification, reasonable efforts, etc.), as well as notice and consent regarding planned exports of such hazardous secondary materials. We also requested comment on whether the Agency should allow exports under the generator-controlled exclusion.

Comments: Scope of Exports

Overall, commenters expressed few concerns with the specifics of the proposed export regulations, although a few disagreed with allowing exports of hazardous secondary materials under the proposed rule altogether. These commenters believed that allowing exports of such hazardous secondary materials would run contrary to international agreements (such as agreements established by the Organization for Economic Cooperation and Development (OECD) and the Basel Convention regarding transport of hazardous waste) and may also increase the risk of environmental damage in other countries. At least two commenters suggested limiting exports to our bilateral partners only (i.e., Canada and Mexico). On the other hand, some industry commenters argued that many companies have worldwide operations and would therefore benefit from broader provisions allowing exports of hazardous secondary materials to be managed under the control of the generator because it would improve the companies' ability to recycle hazardous secondary materials.

EPA's Response: Scope of Exports

After considering these comments, the Agency is largely maintaining the export provisions as proposed, with some minor modifications described below. We believe that hazardous secondary materials exported for legitimate reclamation in accordance with today's final rule are not discarded and, thus, not solid wastes and, therefore, we have no basis for prohibiting exports when a hazardous secondary material generator complies with the regulatory requirements.

We also disagree with commenters who believe today's rule runs contrary to international agreements controlling the movement of hazardous waste. We note the U.S. is an OECD Member and is, therefore, legally bound to comply with the OECD's "Decision of the Council C(2001)107/FINAL, Concerning the Control of Transboundary Movements of Wastes Destined for Recovery Operations, as amended by C(2004)20," which provides a framework for OECD Member countries to control transboundary movements of recoverable waste in an environmentally sound manner. The Amended 2001 Decision recognizes that Member countries may develop their own regulations to determine whether or not materials are controlled as hazardous wastes. Under today's rule, hazardous secondary materials meeting certain conditions and exported for reclamation are not solid wastes under U.S. regulation. The Agency notes, however, that once hazardous secondary materials reach the border of the receiving country, the hazardous secondary material is regulated in accordance with the receiving country's laws and regulations. In other words, such hazardous secondary materials that are not solid and hazardous wastes under the U.S. hazardous waste regulations may be solid and hazardous wastes under the receiving country's regulations and, therefore, facilities should be aware of the requirements that competent authorities of receiving countries may impose.

Additionally, some commenters asserted that today's rule was inconsistent with the Basel Convention, a separate multilateral international agreement governing the transboundary movements of hazardous wastes. The U.S., however, is not a party to the Basel Convention and thus is not held to the Convention's agreements (although, because the Convention prohibits exports between a Basel party and a non-Basel party, the U.S. may not export hazardous waste to any Basel party, absent a bilateral or multilateral agreement with that party). Beyond this point, EPA, in any case, considers today's rule to be consistent with Basel for the same reason that it is consistent with the OECD agreement described above.

In response to comments on allowing exports under the generator-controlled exclusion, we note this exclusion is subject to few restrictions and is largely based on the assumption that hazardous secondary materials are unlikely to be discarded because they would be closely managed and monitored by a single entity. However, this same assumption does not pertain to exports of hazardous secondary materials because EPA would not be able to ensure the close management and monitoring by a single entity of hazardous secondary materials in a foreign country. Accordingly, we believe that hazardous secondary materials exported for reclamation is excluded only if the receiving country has consented and is provided an opportunity to determine and ensure that hazardous secondary materials exported to its reclamation facilities are not discarded.

Additionally, we note that in today's rule we have replaced the term "exporter," which was used in the March 2007 supplemental proposal, with the term "hazardous secondary material generator." This is because, under the exclusion for hazardous secondary materials exported for reclamation (today's 40 CFR 261.4(a)(25)), the "exporter" is required to comply with the generator responsibilities listed under the transfer-based exclusion (such as reasonable efforts), as well as notice and consent and annual reports. By replacing the term "exporter" with "hazardous secondary material generator," we are clarifying that for hazardous secondary materials exported for reclamation, the hazardous secondary material generator is responsible for notice and consent and for submitting annual reports. We would also like to clarify that intermediate facilities can still be used for exports (as with the transfer-based exclusion), but the generator, not the intermediate facility, must comply with the notice and consent and annual report requirements. This is because the intermediate facility cannot perform the generator responsibilities under the transfer-based exclusions and, therefore, cannot perform the duties of the "exporter" under this rule. We also note that this exclusion specifically references the condition in § 261.4(a)(24)(iv) that recycling be legitimate as specified in § 260.43.

Comments: Annual Reports

In the proposed rule, we solicited comment on whether facilities managing hazardous secondary materials under the exclusions should be required to submit periodic (e.g., annual) reports detailing their recycling activities, such as information on the types or volumes of hazardous secondary materials reclaimed or other relevant information.

With respect to exports, a few commenters suggested that we add to 40 CFR 261.4(a)(25) a requirement that hazardous secondary material generators submit annual reports regarding the exports of their hazardous secondary materials. This requirement would be similar to the requirement currently in 40 CFR part 262 subpart E, in which primary exporters must submit annual reports regarding exports of hazardous waste. Conversely, a few commenters urged EPA to finalize the export requirements, as proposed with at least one commenter explicitly agreeing with EPA's proposal not to require annual reports for hazardous secondary material generators.

EPA's Response: Annual Reports

The Agency agrees with those commenters who supported a requirement for hazardous secondary material generators to submit to EPA annual reports regarding the exports of their hazardous secondary materials. We believe that such a requirement will help determine that hazardous secondary materials exported for reclamation are handled as commodities and not discarded. We have, therefore, added a provision to 40 CFR 261.4(a)(25) requiring hazardous secondary material generators who export hazardous secondary materials to file a report with the Office of Enforcement and Compliance Assurance [19] that summarizes the types, quantities, frequency, and ultimate destination of all hazardous secondary materials exported for reclamation during the previous calendar year. Such reports would document the total amount of hazardous secondary materials exported during the calendar year, which is often not the same as the amount specified in an export notice. Such a report would also enable EPA to compare actual shipments in the annual report against proposed shipments in the export notice to ensure that the shipments occurred under the terms approved by the receiving country. Finally, such a report would enable EPA to provide summary information, if requested by a receiving country, that could assist the receiving country in determining what amount of hazardous secondary materials was received in that country for reclamation.

Comments and EPA's Response: Tacit Consent

In the March 2007 supplemental proposal, we specified that the hazardous secondary material generator must receive consent (through EPA) in writing from the receiving country before the hazardous secondary materials could be exported. Some commenters pointed out that under the existing export regulations for hazardous wastes exported to OECD Member countries, the receiving country may use tacit consent to respond to the notification (40 CFR part 262 subpart H). Commenters expressed concern that this was a point of confusion, as fully regulated hazardous wastes are eligible for tacit consent, whereas excluded hazardous secondary materials would require consent in writing. To eliminate this confusion, EPA has added a provision to the regulations that allows tacit consent for hazardous secondary materials exported to OECD Member countries similar to that allowed for hazardous wastes under 40 CFR part 262 subpart H. We note that Canada and Mexico, though OECD Member countries, typically require written consent for exports to their countries.

For a detailed description of today's exclusion for hazardous secondary materials exported for reclamation, see section VIII.C.5. of today's preamble.

F. Notification and Other Recordkeeping and Reporting Requirements

EPA proposed a total of three recordkeeping and reporting requirements in the March 2007 supplemental proposal: (1) A one-time notification to be submitted by hazardous secondary material generators and reclaimers (required for both the generator-controlled and the transfer-based exclusions); (2) for the transfer-based exclusion, a requirement for both the hazardous secondary material generator and reclaimer to maintain for three years records of all off-site shipments of excluded hazardous secondary materials (either sent by the generator or received by the reclaimer); and (3) notice and consent for hazardous secondary materials exported for reclamation in foreign countries.

Comments: General Recordkeeping and Reporting Requirements

Many commenters supported increasing the recordkeeping and reporting requirements in order to adequately monitor compliance with the exclusions and to measure increases in

[19] The Office of Enforcement and Compliance Assurance (OECA) is the office within EPA that implements the notice and consent process for exports.

safe hazardous waste recycling. Alternatively, some commenters urged EPA to finalize the requirements as proposed, cautioning that onerous reporting and recordkeeping requirements would discourage facilities from taking advantage of the exclusions. A few commenters questioned EPA's authority for including recordkeeping and reporting requirements altogether; these commenters argued that, since hazardous secondary materials are not solid wastes and thus not subject to regulation, recordkeeping and reporting requirements should not apply.

EPA's Response: General Recordkeeping and Reporting Requirements

EPA agrees with the majority of commenters and believes that additional recordkeeping and reporting requirements are necessary to enable effective and credible oversight. We therefore consider the recordkeeping and reporting requirements in today's rule to be the minimum information necessary to determine that hazardous secondary materials are reclaimed and not discarded. Some of the recordkeeping requirements that we are finalizing today are discussed in detail within other relevant sections of today's preamble (see section XVII.B. for our response to comments on documentation and certification of reasonable efforts and section VII.C. for a detailed description of financial assurance). This section focuses on our response to comments regarding the notification requirement and, for the transfer-based exclusion, the requirement that the generator maintain confirmations of receipt of hazardous secondary materials from the reclamation facility and intermediate facility.

Comments: Notification as a Condition of the Exclusion

In the March 2007 supplemental proposal, EPA noted that the one-time notification requirement under the authority of RCRA section 3007 would not be a condition of the exclusions, and that failure to notify, while constituting a violation of the notification regulations, would not affect the excluded status of the hazardous secondary materials.

A number of commenters disagreed with this rationale and argued instead that the notification requirement should be made a condition of the exclusions. These commenters stated that, as proposed, the notification requirement would create an unintended incentive for hazardous secondary material generators and reclaimers *not* to notify, because those who chose not to notify would likely evade oversight for many years and, if caught, could simply regard the "paperwork violation," and possible penalty for that violation, as a cost of doing business. These commenters maintained that the failure of a hazardous secondary material generator or reclaimer to provide notification is a strong indication that these entities are either unaware of or trying to circumvent the regulatory requirements, in both cases possibly increasing the likelihood for environmental damage. Therefore, these commenters argued that failure to notify should be regarded as more serious than a reporting violation and should, therefore, remove the excluded status of the hazardous secondary materials.

Conversely, some commenters supported EPA's proposed approach, agreeing that if an entity fails to notify, it does not necessarily indicate that the hazardous secondary materials were discarded and, therefore, should not automatically affect the excluded status of the materials.

EPA's Response: Notification as a Condition of the Exclusion

At issue here is not the requirement to submit a notification, but rather the consequences an entity would face for failing to notify. Notification as a *requirement* under the authority of RCRA section 3007 of the exclusion means failure to notify would constitute a violation of the notification regulations. On the other hand, notification as a *condition* of the exclusion means failure to notify would potentially result in the loss of the exclusion for the hazardous secondary materials (i.e., the hazardous secondary materials would become solid and hazardous wastes and subject to full Subtitle C regulation). In context with this issue, EPA considered the intent of the notification, which is to provide basic information to regulatory agencies about who will be managing hazardous secondary materials under the exclusions. This basic information enables regulatory agencies to administer oversight and set enforcement priorities, but does not allow regulatory agencies to directly determine that hazardous secondary materials were discarded. In other words, a generator or reclaimer could fail to notify yet still be legitimately recycling their hazardous secondary materials according to the conditions of the exclusion. Therefore, EPA is retaining notification as a requirement under the authority of RCRA section 3007, and, thus, notification is not a condition of today's exclusions.

Comments: Format of Notification

In the March 2007 supplemental proposal, EPA requested comment on whether the notification should be submitted in a particular format and discussed the option of using the Subtitle C Site Identification Form (EPA Form 8700–12) to collect the information. By far, the majority of commenters were in favor of using the Site ID form, pointing out that EPA would effectively minimize burden by leveraging this form because it is already familiar to the regulated community. Of the very few commenters opposed to using the Site ID form, some argued that the form was not appropriate for collecting information on hazardous secondary materials because it is primarily used to collect information regarding hazardous wastes. However, other commenters thought the Site ID form was appropriate because it is currently used to collect information on other types of recycling activities not subject to full Subtitle C regulation, such as used oil and universal waste activities. Finally, some commenters supported use of the Site ID form because it would result in standardized and consistent data that users could electronically access through EPA's databases.

EPA's Response: Format of Notification

EPA agrees with the majority of commenters and is requiring hazardous secondary material generators, tolling contractors, toll manufacturers, reclaimers and intermediate facilities managing hazardous secondary materials to use the Site ID form (EPA Form 8700–12) when notifying in accordance with today's rule. We believe that the Site ID form will provide standardized data, while minimizing the collection burden because many facilities notifying under today's rule are already familiar with the form and will not need to invest resources in learning a new form and process. EPA also agrees with commenters who stated that the form is appropriate for today's rule, since it already collects information on other types of recycling activities. However, EPA will modify the current Site ID form in order to accommodate the notification requirement for today's rule.

Comments: Types of Information in Notification

In the March 2007 supplemental proposal, EPA proposed that generators and reclaimers of hazardous secondary materials include in the notification the name, address, and EPA ID number (if

applicable) of the generator or reclaimer; the name and number of a contact person; the type of hazardous secondary materials that would be managed according to the exclusion; and when the hazardous secondary materials would begin to be managed in accordance with the exclusion. Many commenters, particularly states, argued that this information was insufficient to monitor hazardous secondary material generators and reclaimers adequately and, instead, suggested additional types of information to include in the notification, such as quantity of the hazardous secondary materials managed under the exclusion, the name and EPA ID number of the reclaimer receiving the hazardous secondary materials and a description of the recycling process. These commenters argued that additional information was important to monitor compliance of the facilities with the exclusions and to measure increases in safe hazardous secondary materials recycling.

On the other hand, some commenters urged EPA to retain the basic information in the notification as proposed. These commenters questioned how additional information would assist with defining discard and also noted that EPA, historically, has not required notification for the existing self-implementing exclusions from the definition of solid waste located in 40 CFR 261.4.

EPA's Response: Types of Information in Notification

After carefully considering these comments, we agree with those commenters who support requiring additional information in the notification in order to monitor compliance with the exclusions adequately. We believe today's notification requirement reflects the minimum amount of information needed to identify which facilities will be managing hazardous secondary materials under today's rule in order to enable regulatory agencies to administer oversight and ensure that hazardous secondary materials are reclaimed and not discarded. We, however, did not include suggested data elements that might be difficult or complex to collect, such as a description of the recycling process, and did not include information that is more appropriately documented and maintained at the facility. For example, some commenters suggested adding a requirement that generators indicate the identity of the reclaimer receiving their hazardous secondary materials for reclamation; however, under today's transfer-based exclusion, this information is already documented as part of the requirement for hazardous secondary material generators to keep records of all off-site shipments.

We consider the information we are requiring in the notification under today's rule to reflect what responsible companies would routinely collect as part of their normal business operations. For example, responsible companies track quantities of valuable commodities that are managed on-site or shipped off-site and, thus, we believe reporting quantities of hazardous secondary materials managed in the notification will not present an undue burden.

Furthermore, we note that EPA currently requires notification under certain of the 261.4 exclusions, such as for spent materials generated and recovered within the primary mineral processing industry (40 CFR 261.4(a)(17)) and for hazardous secondary materials used to make zinc micronutrient fertilizers (40 CFR 261.4(a)(20)) and, thus, we do not agree with those commenters who believe that the notification requirement is inconsistent with the existing solid waste exclusion requirements.

For a detailed discussion on the notification requirement that EPA is finalizing today, see sections VII.C. and VIII.C.

Comments: Periodic Reporting

In the March 2007 supplemental proposal, EPA proposed that hazardous secondary material generators and reclaimers submit a one-time notification, but asked for comment on whether facilities using the exclusion should be required to submit periodic (e.g., annual) reports detailing their recycling activities.

Several commenters supported requiring periodic reports (or periodic notification). These commenters argued that data collected in a one-time notification would become obsolete very quickly and would likely require substantial investment in order to 'clean up' the information before it could be used, a resource burden that would likely fall on the states. For example, over time, some facilities that originally submitted a one-time notification would cease managing hazardous secondary materials according to the exclusion. Some commenters argued that, by using a one-time notification approach, it would be a challenge to identify these facilities and, subsequently, a challenge to compile a list of facilities who are currently managing hazardous secondary materials according to the exclusions, thereby inhibiting the states' ability to monitor compliance at these facilities.

Furthermore, as one state commenter said, some generators managing hazardous secondary materials will go out of business and without a steady feed of updated information, states have no way of knowing which generating facilities have closed and, thus, are unable to ensure that their hazardous secondary materials were reclaimed and not discarded. This leaves states acutely vulnerable to costs incurred from potential environmental damage caused by abandonment of the hazardous secondary materials.

Other commenters noted that periodic notifications would allow public agencies to compile credible information regarding hazardous secondary materials recycling that can be used to demonstrate success, target additional recycling opportunities, and improve the public's understanding and acceptance of recycling practices. One commenter also supported a clear requirement to file periodically in order to reduce confusion regarding when to re-notify and also to ensure that the information was kept accurate and current.

On the other hand, some commenters urged EPA to finalize the notification requirements as proposed and stressed that numerous recordkeeping and reporting requirements may inhibit facilities from taking advantage of the exclusions, thereby discouraging further increases in recycling.

EPA's Response: Periodic Reporting

In considering these comments, EPA reflected on the intent of the notification requirement, which is to provide basic information to regulatory agencies about who is managing hazardous secondary materials under the exclusions in order to monitor compliance with the exclusions. As commenters noted, with a one-time notification approach, there is no assurance that the information collected in EPA's databases over time will accurately reflect facilities that are managing hazardous secondary materials according to the exclusion. Therefore, the Agency can imagine instances where precious resources are required to be spent on 'cleaning up' the data before regulatory authorities can use it to identify facilities who are currently managing hazardous secondary materials under the exclusions. With a one-time notification, we can also foresee problems where regulatory agencies spend time and resources monitoring compliance at facilities that have since stopped managing hazardous secondary materials at some point in the past. This inefficient use of resources would serve to lower the effectiveness of regulators

to monitor compliance overall and could potentially increase the risk of environmental damage from abuse of today's exclusions.

EPA further believes that responsibility for submitting and maintaining updated information lies with the hazardous secondary material generators, reclaimers, and intermediate facilities that use today's exclusions. We understand arguments made by commenters that, as originally proposed, the one-time notification would in effect reverse this responsibility, placing an unreasonable burden on the states and EPA to 'clean up' the data every time a regulating agency sought to use the information. Instead, the incremental burden to facilities who must submit periodic notifications is minimal compared to the considerable public expense that states and EPA would likely incur over time in order to use the information submitted in a one-time notification. Once an initial notification is submitted, to re-notify, a facility need only review the previous notification and either make changes if necessary or confirm that the information remains accurate. EPA has chosen to use the Site ID form for this notification because it is standardized, electronically-accessible, and familiar to the regulated community and, therefore, will assist facilities by reducing the overall time and effort required to report the information. Currently, large quantity generators on average spend $364 a year on biennial reporting under full Subtitle C regulation, whereas under today's rule, an initial notification is estimated to be only a third of that cost, with subsequent notifications likely costing even less.[20] EPA has designed the notification requirement in today's rule to strike an appropriate balance between providing essential information to regulators, while keeping additional burden at a minimum.

We are convinced of the validity of the above arguments raised by commenters in support of periodic reporting and agree that the limitations of a one-time notification approach would undermine the purpose of the notification. Therefore, EPA is requiring hazardous secondary material generators, tolling contractors, toll manufacturers, reclaimers, and intermediate facilities managing hazardous secondary materials to notify the Regional Administrator prior to operating under the exclusions and by March 1 of each even-numbered year thereafter. We chose the two-year time frame to reflect both commenters' suggestions (of those who supported periodic reporting, most suggested annual or biennial reporting) and to best fit with the biennial reporting process for hazardous wastes (pursuant to 40 CFR 262.41, biennial reports are due by March 1 of each even-numbered year). Since many facilities are accustomed to the biennial reporting process and likely have structured their processes around the biennial report schedule, we chose the same calendar date for the notification requirement in order to allow facilities to leverage their existing processes and submit the notification at the same time their biennial report is due.

Comments: Confirmation of Receipt

In the March 2007 supplemental proposal, EPA requested comment on whether hazardous secondary material generators should be required to maintain confirmations of receipt of the hazardous secondary materials by the reclaimer. Many commenters expressed support for this requirement, citing that responsible commercial recyclers routinely issue receipt confirmations or "recycling certificates" to assure the generator that its hazardous secondary materials reached the intended destination and were not discarded. Of those who supported the requirement, many argued that EPA should not specify a specific form of documentation so that facilities could leverage existing business practices already in place to track valuable commodities. A few commenters continued to urge EPA to be conscious of the imposition of additional recordkeeping and reporting requirements lest the Agency discourage recycling of hazardous secondary materials.

EPA's Response: Confirmation of Receipt

We agree with commenters who support requiring confirmation of receipts and are, therefore, adding to 40 CFR 261.4(a)(24) a requirement that generators maintain confirmation of receipts from reclaimers and intermediate facilities for all off-site shipments of excluded hazardous secondary materials for a period of three years. Under today's rule, hazardous secondary materials may be transferred to intermediate facilities for storage or, where reclamation consists of multiple steps occurring at separate facilities, may be transferred to more than one reclaimer. This requirement would confirm that the hazardous secondary materials did in fact reach the reclaimer (or each reclaimer, if reclamation occurs at separate facilities) and any intermediate facility as originally intended and were not discarded. EPA also agrees with commenters that responsible companies would produce and maintain receipts as part of their normal business operations and, thus, the Agency believes this requirement will not pose an undue burden. The Agency is not specifying a certain form or format for this documentation, but instead provides examples of routine business records that would contain the appropriate information in section VIII.C.4. of today's preamble and in today's rule.

XVIII. Major Comments on Legitimacy

A. Codification of Legitimacy Factors

EPA's October 2003 proposal to codify the legitimacy criteria was in response to the comments that have been made over the years by both industry and states that the existing legitimacy guidance is useful, but somewhat hard for members of the regulated community to know about because it could only be found in preamble discussions and guidance. The March 2007 supplemental proposal made some adjustments to the October 2003 proposal, including a change from the term "criteria" to "factors," but left intact the general intention to codify those legitimacy factors for all recycling. As expected, the Agency received public comments from both state environmental agencies and from industry on our approach.

Comments: Codification of Legitimacy.

State commenters were unanimously in favor of codifying the legitimacy factors in the regulations. In response to the October 2003 proposal, twenty-three states expressed their support for codification. In comments to the March 2007 supplemental proposal, two additional states supported codification of the proposed factors. All twelve states that commented on legitimacy in both proposals expressed their strong support for codification in both their 2003 and 2007 comments.

States have long advocated for establishing regulations that specifically address the legitimacy of recycling. In response to EPA's proposals, many states commented that they are currently relying on the concept of legitimacy as laid out in definition of solid waste preambles and in the 1989 "Lowrance Memo" guidance because they are the best sources of information that can be used in evaluating a recycling operation. Codification is a

[20] Estimates are from the Regulatory Impact Analysis for U.S. EPA's 2008 Final Rule Amendments to the Industrial Recycling Exclusions from the Definition of Solid Waste.

priority to the states because, as a regulation, the requirement for recycling to be legitimate would be better known and understood by the regulated community and it would be easier for states to monitor compliance. One commenter stated that it makes more sense to implement a regulation than a collection of statements found in guidance.

Industry commenters, on the other hand, were split on the issue of codification. Including comments from both the October 2003 proposal and the March 2007 supplemental proposal, just over half of the industry commenters opposed codification of the legitimacy factors, although they tended to express support in their comments for the purpose and goals of the legitimacy factors and agree with the goal of identifying which processes are true recycling and which are sham recycling. Several industry commenters stated that the guidance is working well already and many of those opposed to codification expressed concern that if the legitimacy factors were codified, they would lose the flexibility in the guidance that allows the factors to apply to many varied industrial sectors and processes, automatically becoming more stringent. Another concern expressed by the commenters regarding codification of the legitimacy factors was that, in their view, the terms used in the regulatory text are too ambiguous and should be clarified before they can be part of a regulation. These commenters argue that codification of the factors without addressing these concerns would automatically be more stringent than having guidance, thereby inappropriately inhibiting legitimate recycling.

About one-third of the forty-two industry commenters on the issue of whether or not to codify backed the codification of the legitimacy factors. Many of these commenters represented segments of the waste management industry, but a number of representatives of generating industries also made this comment. The industry commenters that supported codification stated that they did so because it would provide clarity, consistency, and predictability by making it more apparent which hazardous secondary materials and processes are covered by the recycling exclusions. One commenter noted the value in the legitimacy factors going through the notice and comment process since they are being used by the states in implementation of the regulations and another expressed an expectation that the codified requirements would lead to more uniformity in interpretation between implementing agencies. Several of these commenters also stated that they also valued the flexibility of the structure of the Lowrance memo and stressed the importance of the codified legitimacy factors retaining that flexibility.

In addition, several more industry commenters stated that they saw the value in codifying the legitimacy factors and could support its codification under certain conditions. The suggested conditions included the codification of only the two proposed mandatory factors, codification of the factors in conjunction with finalizing what we called the "broader exclusion" option in the October 2003 proposal, and codification of legitimacy factors to be used only with the definition of solid waste exclusions that were included within the supplemental proposal in March 2007.

EPA's Response: Codification of Legitimacy.

In today's final rule, EPA is codifying the legitimacy factors as a requirement for today's exclusions and for the non-waste determinations, but not for all recycling. To avoid confusion among the regulated community, as well as the state and other implementing regulatory agencies about the status of recycling under the existing exclusions, EPA is not codifying the legitimacy factors as specifically applicable to existing exemptions in today's final rule. In developing the codified legitimacy language, we did not intend to raise questions about the status of legitimacy determinations that underlie existing exclusions from the definition of solid waste, or about case-specific determinations that have been made by EPA or the states. Current exclusions and other prior solid waste determinations or variances, including determinations made in letters of interpretation and inspection reports, remain in effect.

In codifying the legitimacy provisions for the exclusions and non-waste determinations in today's final rule, EPA has taken into consideration all the comments it received in response to the October 2003 proposal and March 2007 supplemental proposal on the structure of the legitimacy factors, as well as on the individual factors themselves and has made the appropriate changes to the factors to address those comments.

In response to a general comment, EPA is aware of the comments that each of the terms in the legitimacy regulations should be more clearly defined and the suggestions for specific tests for each of the factors. We are, however, seeking a balance between having a set of specific tests and having the flexibility needed for a requirement that applies to the range of recycling practices in various industries in different industrial or commercial settings.

Therefore, in response to comments, the discussion of legitimacy in today's preamble describes more clearly what EPA means by the terms we use in the regulatory text for this element of the final rule. The Agency also is providing more examples of both legitimate and sham recycling than were included in the discussions of the individual factors in the preambles for the October 2003 proposal and March 2007 supplemental proposal to illustrate the meaning of the legitimacy factors. The Agency also is stressing the importance of case-by-case determinations that are based on the facts of a specific situation.

B. Effect on Current Determinations of Legitimate Recycling Activities

In the March 2007 supplemental proposal, EPA stated its opinion that the concept of legitimate recycling originally proposed in October 2003 is not substantively different from our longstanding policy, as articulated in the 1989 Lowrance Memo and subsequent preambles. We stated that we were simply reorganizing, streamlining, and clarifying the existing legitimacy principles. Thus, we stated in the March 2007 supplemental proposal that we believe that the regulatory definition of legitimate recycling, when applied to specific recycling scenarios, would result in determinations that were consistent with EPA's earlier policy. We went on to say that we did not believe the regulated community or implementing agencies would need to revisit previous legitimacy determinations. However, we did request examples of determinations which could be impacted by the codification.

Comments: Relationships With Existing Determinations

Commenters expressed concern that, in spite of EPA's intentions, the codification could prompt implementing agencies to revisit past legitimacy determinations. In addition, comments on the October 2003 proposed rule suggested that implementing agencies could interpret the proposed regulatory text as meaning that a recycling activity must satisfy all four of the factors to be considered legitimate. Several commenters on the March 2007 supplemental proposal stated that legitimacy should not apply to the existing recycling exclusions in the current regulations and others were

concerned that codification may lead implementing agencies to consider only the four factors and not consider other key information about the recycling activity.

EPA's Response: Relationships With Existing Determinations

Regarding the existing exclusions in the regulations, EPA acknowledges that, in establishing a specific exclusion, we have already determined in the rulemaking record that the specific recycling practice is excluded from the definition of solid waste provided all the conditions of the rule are met. However, the Agency has always enforced its rules on the basis that any recycling must be legitimate (See *U.S.* v. *Self*, 2 F. 3d 1071, 1079 (10th Cir. 1993); *U.S.* v. *Marine Shale Processors*, 81 F. 3d 1361, 1366 (5th Cir. 1996): *Marine Shale Processors* v. *EPA*, 81 F. 3d 1371, 1381–83 (5th Cir. 1996)). This is meant to prevent a company from claiming to be operating under an existing exclusion and simply using that as a way to avoid full RCRA Subtitle C regulation.

However, to avoid confusion among the regulated community and state and other implementing agencies about the status of recycling under existing exclusions, we have decided that the focus of this rule should be the specific changes it is making to the definition of solid waste in the form of the exclusions and non-waste determinations finalized today. Thus, the legitimacy factors codified in 40 CFR 260.43 only apply to the exclusions and non-waste determination process being finalized in this rule and we do not expect implementing agencies to revisit past legitimacy determinations based on this final rule preamble language.

Also, it should be noted that the regulatory language does not preclude other considerations when looking at the codified factors for making legitimacy determinations. We recognize that additional information about the recycling activity could be helpful and could be used when assessing the four legitimacy factors and in making a determination about whether a specific recycling activity is legitimate. In fact, we encourage the regulated community and implementing agencies to use any and all information about the recycling process to come to an informed decision on the legitimacy of a hazardous secondary material recycling operation. However, given the public comment on the October 2003 proposed rule and the March 2007 supplemental proposal, no other factors have been identified and we believe that the four legitimacy factors codified in this rule include the relevant principles of legitimate recycling for the purposes of the exclusions and non-waste determinations being finalized today.

C. Revised Structure for the Definition of Legitimate Recycling

In the March 2007 supplemental proposal, we proposed a new structure for the definition of legitimate recycling. The first part consisted of those factors that must be met, which included a requirement that the hazardous secondary materials being recycled provide a useful contribution to the recycling process or to the product of the recycling process and a requirement that the product of the recycling process be valuable. EPA considers these two factors to be fundamental to legitimate recycling and if a recycling process does not meet them, it is sham recycling (i.e., treatment or disposal of a hazardous waste under the guise of recycling).

The second part of the proposed structure included two additional factors that must be taken into account when a legitimacy determination is being made. We explained that while these two additional factors are important in determining whether a particular process is legitimate, there may be circumstances under which a legitimate recycling process might not conform to one or both of these factors. The two additional factors are whether the hazardous secondary materials are managed as a valuable commodity and whether the product of the recycling process contains significant concentrations of hazardous constituents. We note, however, that in cases where a recycling practice does not meet one or both of these factors, the hazardous secondary material generator and/or recycler should be able to demonstrate why the recycling is in fact still legitimate.

Comments: Revised Structure

The public comments on the individual factors in the March 2007 supplemental proposal showed that, as in the comments to the October 2003 proposal, there continues to be general agreement from industry and state commenters on two factors (useful contribution and valuable product/intermediate). Commenters were virtually unanimous in their agreement that these two factors are crucial indicators of legitimacy and should be included in the concept of legitimacy. In other words, there was agreement that recycling cannot be legitimate if the material being recycled does not provide a useful contribution to the process or to the product and if the recycling process does not yield a product or intermediate that is valuable to someone. Certain commenters requested that EPA provide additional information on how it defines these terms and, while there was some disagreement with the specifics laid out in the preamble, there was little disagreement with the basic overarching concepts.

Although there was support for the structure for legitimacy that was proposed in the March 2007 supplemental proposal, most states, the environmental community, and the waste management industry argued that all four of the factors should be mandatory requirements-that is, they must all be met for the recycling activity to be considered legitimate recycling. Industry had a more mixed response to this issue with some supporting the proposed structure and others preferring that the factors be finalized as balancing factors. Others expressed their opinion that while they preferred non-mandatory criteria, the proposed approach was reasonable. Several commenters expressed their preference for keeping the legitimacy factors as guidance, but stated that if the Agency decided to codify the legitimacy factors, they preferred the structure as proposed in the March 2007 supplemental proposal.

EPA's Response: Revised Structure

EPA agrees with the commenters on the importance of the two factors (useful contribution and valuable product/intermediate) that were proposed to be mandatory in evaluating legitimate recycling and, for this final rule, we have decided that these two concepts are, in fact, at the very core of what it means to recycle legitimately. Therefore, the final regulatory language states in 40 CFR 260.43(b) that "[l]egitimate recycling must involve a hazardous secondary material that provides a useful contribution to the recycling process or to a product of the recycling process, and the recycling process must produce a valuable product or intermediate." This statement is followed by clauses (1) and (2) that give more details on how the Agency defines these concepts.

EPA has determined that the other two factors are still important in making legitimacy determinations, but do not necessarily have to be met for the recycling activity to be considered legitimate. Instead, the regulations state that a person making a legitimacy determination must consider these two factors, which are found in § 260.43(c) of the final language. In stating that the factors must be considered, EPA expects that those making legitimacy determinations will evaluate how the

hazardous secondary materials in question are managed as compared to analogous raw materials and how levels of hazardous constituents in their products compare with the levels of hazardous constituents in analogous products. If the generator or recycler determines that one or both of these factors are not met, that person should be prepared to explain why their recycling activity is nevertheless still legitimate. As described in § 260.43(c)(3) of the regulatory text, in evaluating the extent to which these factors are met and in determining whether a process that does not meet one or both of these factors is still legitimate, persons can consider the protectiveness of the storage methods, exposure from toxics in the product, the bioavailability of the toxics in the product, and other relevant considerations. We would note that the facility may be requested to demonstrate the legitimacy of their recycling process and explain why failure to meet one or both of these factors does not affect the legitimacy of the recycling process.

Comments: Mandatory Factors

As part of the October 2003 proposal, the Agency solicited comment on whether the factors should continue to be used in the same way as the previous guidance had been used, as factors to be balanced or considered in making an overall determination, or whether the factors should be structured differently in the final rule, such as in the form of mandatory requirements that must all be met. Based on the comments received on that proposed rulemaking, we proposed a new structure in the March 2007 supplemental proposal with two mandatory factors and two factors that must be taken into account, but not necessarily met in every situation (72 FR 14198).

Many state implementing agencies argued that all the factors should be written as mandatory requirements that must be met. Most industry commenters (but not all) did not. The main argument in favor of making the factors mandatory requirements is that commenters argued that this approach would result in legitimacy determinations that are more objective and more enforceable. The main arguments against making all the factors mandatory requirements is that the overall determination is made on a case-by-case basis, which is often facility-specific, and not all legitimate recycling can fit into such a rigid system.

EPA's Response: Mandatory Factors

The Agency can see both state and industry viewpoints and, in the end, as described above, has decided upon a course of action that results in a compromise between the two approaches. In section IX of this preamble, we explain in detail the final design of the legitimacy factors, which includes two factors that must be met (useful contribution and valuable product/intermediate) and two factors that must be taken into account in making an overall legitimacy determination. We believe this approach and the attendant regulatory language is clearer than the existing guidance, yet retains enough flexibility to account for the variety of legitimate hazardous secondary materials recycling practices that exist today.

D. Comments on the Specific Factors

In developing the legitimacy factors, the Agency sought a balance between having a set of specific tests and having the flexibility that is necessary to allow the four legitimacy factors to apply to hazardous secondary material recycling practices in the many industrial or commercial settings to which the factors would be applied. As a result, each of the legitimacy factors included a term or terms that drew public comments arguing that the factors were not clearly enough defined. The underlined terms in the following excerpts from the regulatory text demonstrate what these terms are:

- Factor 1: "Legitimate recycling must involve a hazardous secondary material that provides a *useful contribution* to the recycling process or to a product of the recycling process."
- Factor 2: "The recycling process must produce a *valuable* product or intermediate."
- Factor 3: "The generator and recycler should manage the material as a *valuable* commodity * * * Where there is no analogous raw material, the hazardous secondary material should be *contained.*"
- Factor 4: "The product of the recycling process does not contain *significant* concentrations of hazardous constituents [or] contain concentrations * * * at levels that are *significantly* elevated from those found in analogous products."

The October 2003 proposal gave some narrative descriptions of these terms to explain what they mean in the context of legitimate recycling, but that proposal did not provide any concrete tests for how those specific terms are to be used when judging whether a process and/or hazardous secondary material meets these factors.

Comments: Defining Legitimacy Terms

For each of the four factors, the Agency received public comments that focused specifically on the meaning of and the difficulties in implementing these factors when the terms are not accompanied by a test for the hazardous secondary material generators and recyclers to use when making determinations of legitimacy. For the first factor, the Agency received several comments on the definition of "useful contribution" from the October 2003 proposal. For the second factor, over twenty commenters submitted comments on the definition of "valuable" in response to the October 2003 proposal. In addition, the Agency received several comments on the definition of "valuable" and on the definition of "contained" related to the third factor and over twenty comments on the definition of "significant" in the fourth factor. We also received some additional comments on the March 2007 supplemental proposal relating to the same definitional terms in each factor.

The comments on these terms will be described in more depth in the discussion below for each of the applicable factors, but, in general, the comments showed a wide range of opinions: Some commenters found the discussion in the preamble to define the terms was adequate and appropriate, other commenters objected to the terms as not being clearly defined, while still other commenters found the terms to be too subjective to be a useful tool. We also received comments that suggested alternative ways to define the terms to be clearer or to better meet the Agency's objectives.

EPA's Response: Defining Legitimacy Terms

The Agency has incorporated the ideas generated by the comment process into the final rule, as appropriate. The final language and decisions regarding the legitimacy factors are laid out below in this section and in section IX of this preamble, where the final legitimacy language is discussed more fully. However, after considering the comments, we have decided that we would not develop specific definitions or precise tests that hazardous secondary material generators and recyclers must use when making legitimacy determinations. Instead, the Agency has bolstered our preamble discussion on the meaning of these terms and has included more examples than we had in the preambles to the October 2003 proposal and the March 2007 supplemental proposal.

EPA's decision not to include specific bright-line tests for the final legitimacy factors reflects the fact that legitimacy determinations do not lend themselves to the application of absolute distinctions, especially given the breadth of recycling practices and recycled hazardous secondary materials that exist in industry. The main argument we received for developing specific tests was that, without specific tests, those making legitimacy determinations may be uncertain about whether their regulatory agency would agree with that interpretation of the recycling scenario. This may lead to reduced recycling rates if companies choose not to take advantage of the exclusions for recycling rather than risk interpreting their activities differently than the regulator does.

Although we understand the concerns behind this argument, we are addressing them by including more discussion and explanations of the final factors in the preamble to the final rule. The complexities of defining "valuable commodity/product," "useful contribution," "contained," and "significant" so that they can be determined through a bright-line test and are still appropriate for all industries, all recycling processes, and all recycled hazardous secondary materials are too great for the Agency to be able to design a simple and straightforward system of tests to be used in making such determinations. The complex regulatory system of tests for different types of industries or different processes that would be necessary would not be efficient or accessible to most generators, especially small businesses.

In addition, we believe that legitimacy determinations are best made on a case-by-case basis, which has always been the case, with the facts of a specific situation in hand. In a case-by-case determination, a series of specific tests may not be as useful and as accurate in determining legitimacy as careful consideration of the hazardous secondary material, the recycling process, and the specifics of the situation would be. If a person has any questions as to the legitimacy of a particular recycling activity, he can always approach the appropriate regulatory agency for assistance in making a legitimacy determination.

Comments: Factor 1—The Hazardous Secondary Material Provides a Useful Contribution

Factor 1 expresses the fundamental principle that hazardous secondary materials must actually be useful (i.e., contribute positively) to the recycling process and is intended to prevent the practice of incorporating hazardous secondary materials within manufacturing operations simply as a means of disposing of them. The Agency firmly believes that this concept is crucial to the definition of legitimacy and is finalizing it as part of the core definition. This factor, along with the second factor described below, must be met for any recycling activity to be considered legitimate recycling. The regulatory text for this factor is found in 40 CFR 260.43(b)(1).

In general, we received much support for and agreement with the underlying principle of this factor—that the hazardous secondary materials must provide some useful contribution to either the recycling process or the recycled product. Commenters asked for clarification on a number of issues related to this factor, specifically in regard to the October 2003 proposal and how the economics of recycling is connected to this factor and how the economics of recycling should be evaluated. In the March 2007 supplemental proposal, we described how the economics of recycling relates not only to the useful contribution factor but, in fact, to all of the factors of legitimacy and explained our thinking about how evaluating the economics of recycling transactions should be undertaken.

EPA's Response: Factor 1—The Hazardous Secondary Material Provides a Useful Contribution

The Agency is today finalizing this factor as part of the core definition of legitimate recycling and as a factor that must be met for the recycling to be considered legitimate under § 260.43. We also revised the October 2003 proposal discussion regarding the consideration of economics related to this criterion, and we expanded its consideration beyond just the useful contribution criterion. Today, we are offering further guidance, similar to the March 2007 supplemental proposal, which explains how economics may be considered in making legitimacy determinations and how it may apply to the mandatory factors and the factors that must be taken into account.

Comments and EPA's Response: Factor 1—Contribution to the Process

EPA also received comments on our statements in the October 2003 proposal that indicated that not every component of a hazardous secondary material does or must contribute to the recycling process or product of the recycling process in order for there to be an overall contribution. In particular, one state agency favored allowing the non-hazardous component of hazardous secondary materials to provide the useful contribution and one industry commenter agreed that not all of the hazardous secondary material would have to contribute for this factor to be met. Another state agency asked us to clarify that the statement "not every component of a hazardous secondary material would necessarily have to contribute to the product or the process to meet this criterion" was applicable only in the context of this factor.

It has been the Agency's longstanding policy that in a legitimacy determination not every constituent or component in a hazardous secondary material would have to contribute to a product of the recycling process or intermediate or to the recycling process in order for there to be an overall contribution and this applies to the provision in § 260.43 as well. For example, the use of hazardous secondary materials in zinc fertilizer is considered legitimate recycling when the zinc, a non-hazardous constituent, is the main contribution to the fertilizer. Another example is the use of CRT glass used in copper smelters as a fluxing agent. In this case, the glass provides a useful contribution by facilitating the manufacturing process. Thus, we agree with those commenters who raised questions about this issue and are restating our position here.

Comments and EPA's Response: Factor 1—Efficiency of the Process

Another issue that was discussed in the October 2003 proposal arising in the context of useful contribution was the efficiency of a recycling process in recovering or regenerating the useful component of the hazardous secondary material. One example we used was the recovery of copper from a hazardous secondary material. We stated that where the process was reasonably efficient and recovered all but a small percentage of the copper, it looked like legitimate recycling. However, where a small percentage of copper in the hazardous secondary material is recovered, sham recycling may be indicated. However, we did not discuss recovery rates in the middle range (e.g., 50% of copper recovered from a particular recycling process) and some commenters asked for clarification, including how the factor applies to hazardous secondary materials that are contributing to the recycling process either as a carrier or a catalyst.

The Agency is clarifying in today's preamble and regulatory text that the useful contribution of a hazardous secondary material to the recycling

process or product can be demonstrated in a number of ways. We provided a number of different ways such a material could contribute to the process in the preamble to the October 2003 proposed rule (68 FR 61584–61585) and did not mean to imply that the hazardous secondary material would have to meet all of the examples to provide a useful contribution. For example, hazardous secondary materials could provide a useful contribution to a process by serving as a carrier or catalyst and the process efficiency would not factor into the demonstration of this factor in this example.

In general, the regulated community should look to typical industry recovery rates to determine if the recycling recovery rates are reasonably efficient in terms of making a useful contribution to the recycling process or product. In addition, it should be noted that EPA would generally look at the quantity or the rate of recovery of the overall process, not the recovery rate of a single step in the process, when analyzing this factor for legitimacy. For example, if one step in the process recovers a small percentage of the constituent, but the overall process recovers a much larger percentage, the Agency would consider the overall efficiency of the recycling process in determining whether hazardous secondary materials are providing a useful contribution. This assumes that there is enough of the target constituent present in the hazardous secondary materials to contribute meaningfully to the recycling activity.

Comments and EPA's Response: Factor 1—Residuals

In the discussion of useful contribution in the October 2003 proposal, in the context of process efficiency, we stated that a "pattern of mismanagement of the residues" may be an indicator of sham recycling (68 FR 61584). We received several comments asking us to explain the connection between useful contribution of the hazardous secondary materials and management of residues. Several commenters questioned this statement and disagreed that how a facility managed its residues had any bearing on whether the hazardous secondary materials going into a recycling process were being legitimately recycled.

We agree with the commenters who suggested that the management of residuals from the recycling process is not an indicator of whether the hazardous secondary materials provide a useful contribution and thus is not a factor in determining whether legitimate recycling is occurring. For these reasons, we are making it clear that the management of recycling residuals is not a consideration in making legitimacy determinations. Instead, as part of today's final rule, we are requiring that any residuals that are generated from the recycling process be managed in a manner that is protective of human health and the environment. Specifically, there is a requirement for hazardous secondary material generators to make reasonable efforts to ensure that the hazardous secondary materials are legitimately recycled and, among other things, that the reclaimer manages the hazardous secondary materials in a manner that is protective of human health and the environment, including how any recycling residuals are managed. Finally, we note that the generation of residuals that are solid wastes are subject to the waste characterization and identification requirements in 40 CFR Part 261 as a newly generated waste.

Comments: Factor 2—The Recycling Process Yields a Valuable Product/ Intermediate

This factor is intended to capture the fundamental concept that legitimate recycling must produce something of value. For the purposes of evaluating this factor, a product of the recycling process or intermediate would be considered valuable if it can be shown to have either economic value or value that is more intrinsic (*i.e.*, it is useful to the end user, even though it may not be salable as a product or commodity in the open marketplace). The regulatory text for this factor can be found in 40 CFR 260.43(b)(2).

In general, most commenters agreed with the concept that the recycling process must produce something of value. Many commenters also stressed the importance of keeping the concept of "intrinsic" value—that is, a product does not have to be sold to have value. Instead, it can be used as an effective substitute for a commercial product or as a useful ingredient in an industrial process. However, other commenters disagreed, contending that intrinsic value is too subjective to use to determine compliance. One commenter also thought this factor was redundant with the factor that hazardous secondary materials must provide a useful contribution and should be deleted.

Another common concern in the comments was how to evaluate whether the product or intermediate is valuable. Some commenters stressed the importance of evaluating this factor over time, given that markets and prices fluctuate, and others argued that it must be done on a case-by-case basis.

EPA's Response: Factor 2—The Recycling Process Yields a Valuable Product

In general, the Agency agrees with the commenters who stated that a product's value can be either monetary or intrinsic. Clearly, not all valuable products are sold. For example, many legitimate recycling situations exist where the intermediate or product of the recycling process has value and is used on-site, sent off-site to another facility owned by the same company, or even traded between companies. There are a number of already established networks where hazardous secondary materials are exchanged among and across industries. This rule does not interfere with those ongoing exchanges where such materials are being legitimately recycled. One example of such a program is the U.S. Business Council for Sustainable Development's by-product synergy program which has conducted a number of regional pilots in which diverse industries are brought together to facilitate feedstock and by-product exchanges. No money is exchanged in these types of programs.

We are also clarifying in the regulatory text that the product of the recycling process can be either a commercial product or intermediate, as long as it has value to the end user. In addition, we are further clarifying that the regulated community does not need to evaluate each step in the recycling process to determine if the final products or intermediates are valuable. Rather, an individual recycler or generator would look at its final product or intermediate and must be able to demonstrate why it has value.

We understand the concerns of some commenters that intrinsic value is harder to demonstrate than the value of a product of the recycling process that is sold in the open marketplace. While this demonstration is not as straightforward, there are a number of ways the end user can demonstrate the intrinsic value of the recycled intermediate or product. Some examples include showing that the product of the recycling process replaces an alternative product or material that would otherwise have to be purchased or by demonstrating that a product of the recycling process or intermediate meets specific product specifications or established industry standards. Another approach to demonstrating the value of a product of the recycling process or intermediate would be to compare its characteristics (e.g., its physical/ chemical properties or its usefulness for

certain applications) with comparable products or intermediates made from raw materials.

Finally, we disagree with the commenter who stated that this factor is equivalent to the hazardous secondary material making a useful contribution to a product or intermediate. It is certainly possible for a recycling process to result in the production of a valuable product or intermediate without the hazardous secondary materials added to the process making any contribution whatsoever. For example, this would be the case when hazardous secondary materials are added to the process and all of the hazardous secondary materials, including the hazardous constituents, end up in the residuals, which are discarded, and the materials added to the process provide no benefit whatsoever. This is the essence of sham recycling. A vast majority of the commenters saw the need for both factors and after exploring the concept of legitimate recycling further, we were unable to find any examples of legitimate recycling that did not meet both of the core factors (i.e., the hazardous secondary material provides a useful contribution and the recycling process produces a product of value), nor did any commenters provide us with such examples. Thus, we are retaining both concepts as factors that must be met in order for a process to be considered legitimate recycling.

Comments: Factor 3—How the Hazardous Secondary Material To Be Recycled Is Managed

This factor on the management of hazardous secondary materials was designed to illustrate that hazardous secondary materials that are bound for recycling should be managed to prevent releases into the environment in the same way that valuable commodities would reasonably be expected to be managed. Hazardous secondary materials that are recycled are valuable production inputs. As such, we believe that such materials should be managed in a way that retains their value and prevents significant losses to the environment. Hazardous secondary materials that are mismanaged to the extent that they are released into the environment are not recycled.

This factor is one of the two legitimacy factors that EPA believes needs to be considered. However, in some cases, it may not be clear that the factor is met or it may not be met, yet the recycling activity can still be legitimate. The regulatory text for the factor can be found in 40 CFR 260.43(c)(1) and it states that the handler should manage the hazardous secondary material "as a valuable commodity." If an analogous raw material exists, the hazardous secondary material should be managed, "at a minimum, in a manner consistent with the management of the raw material." If there is no analogous raw material, the proposal states that the hazardous secondary material should be "contained."

The response from commenters on this factor was mixed in response to both the October 2003 proposal and the March 2007 supplemental proposal. Many states and environmental organizations commented that the factor should be mandatory and some argued that it should include a strict test. Many commenters from the generating industry and the waste management industry stated that they support this factor and believe that it is a fair and reasonable indicator of legitimacy. Some industry commenters thought that this factor should be mandatory, whereas others commented that the factor should neither be codified nor mandatory. At least one commenter stated that the factor was not necessary because of other existing disincentives for mismanagement. Representatives from extractive industries were most strongly opposed to this factor, stating that EPA cannot include legitimacy requirements on secondary materials that are going to be recycled because they are not in EPA's jurisdiction.

EPA's Response: Factor 3—How the Hazardous Secondary Material To Be Recycled Is Managed

Today, we are finalizing this factor as one of the two factors that must be considered during a legitimacy determination, but not necessarily met. We modified the language of this factor since the October 2003 proposal and are finalizing it basically as proposed in the March 2007 supplemental proposal.

EPA has decided that it is most appropriate to finalize this factor as one of the factors that must be considered rather than as a mandatory factor. Although we believe that this factor is an important part of a legitimacy determination because hazardous secondary materials that are not being managed carefully may be materials that the recycler does not value for its process, the factor is not part of what the Agency considers the core of legitimacy. In addition, as discussed in section IX of this preamble, EPA and commenters were able to identify situations in which this factor is not met, but the recycling appears to be legitimate because the hazardous secondary materials are still being managed in a responsible manner. EPA does not want to restrict legitimate recycling and, therefore, in these cases, the facility could make a determination of legitimacy without meeting this factor, but should be prepared to explain why its recycling is legitimate.

EPA also believes that this factor can be critical when considering whether hazardous secondary materials are legitimately recycled and EPA disagrees with commenters who argued that evaluating "materials management" is outside the scope of RCRA because hazardous secondary materials are not solid wastes due to being excluded. EPA believes that the commenters' argument is circular. The hazardous secondary materials are excluded only if the recycling is legitimate. How materials are managed is part of determining legitimate recycling. EPA has the authority to define legitimate recycling and, therefore, has the authority to require this evaluation.

Comments: Definition of Terms in Factor 3

Commenters stated that compliance with this factor is dependent on the regulated community and regulators understanding what EPA means by it. In the October 2003 proposal, we proposed that the factor read, "[w]here there is no analogous raw material, the secondary material should be managed to minimize the potential for releases to the environment." Many commenters stated that the term "minimize" in this context was particularly unclear. State commenters argued that the term "minimize" did not provide enough guidance or could be interpreted to allow unclear amounts of hazardous secondary materials to be released, leaving room for potential mismanagement of that material, whereas some industry commenters asked if this standard meant they would have to meet or exceed controls required for regulated hazardous wastes in their recycling operations. Several commenters also asked about the term "valuable commodity" and how "valuable" is defined.

EPA's Response: Definition of Terms in Factor 3

EPA agrees that terms for this factor should be more clear to facilitate compliance. Although we have not developed a specific test or codified definitions to explain this factor, we have adjusted some of the language in the factor to address this concern and are providing further explanation of what we intend by this factor in today's preamble so that it is better understood and can be consistently applied.

In the March 2007 supplemental proposal, we modified the language for this factor to state instead that "[w]here there is no analogous raw material, the hazardous secondary material should be contained." This change addressed the ambiguity of the word "minimize," as well as state comments that the storage requirements in this factor needed to be better defined. The Agency believes that facilities that value hazardous secondary materials as part of their manufacturing process will contain those materials to prevent their release. The term "contained" is also being used elsewhere in the exclusions being finalized. EPA is defining this term in the same way throughout: A recyclable material is "contained" if it is placed in a unit that controls the movement of that material out of the unit into the environment. We also believe that the standard for contained is more clear for states and industry than the standard to minimize potential releases to the environment was in the October 2003 proposal.

We also want to clarify the use of several other terms on which we received comments. These terms are discussed briefly here and in more depth in section IX of this preamble, where the legitimacy factors are fully described. "Analogous raw material," also defined elsewhere in the exclusions, is a raw material for which a hazardous secondary material is a substitute and which serves the same function and has similar physical and chemical properties as the hazardous secondary material. Materials generally would not be considered analogous if their chemical makeup were very different from one another—particularly if the hazardous secondary materials contain hazardous constituents that necessitate management processes that the raw material does not—or if their physical properties are different.

Regarding the term "valuable commodity," EPA believes that hazardous secondary materials should be managed in the same or similar manner as raw materials that have been purchased or obtained at some cost. The legitimacy criteria are designed to determine whether a process is like manufacturing rather than like waste management. We believe that the standard for management of the hazardous secondary materials is reasonable for helping assess whether disposal in the guise of normal manufacturing is occurring.

Comments: Factor 4—Comparisons of Toxics in the Product

This factor was designed to prevent hazardous constituents from being "discarded" by being incorporated into a product made from hazardous secondary materials. The factor identifies this situation as being hazardous constituents that are in a product made from hazardous secondary materials when they are not in analogous products, or when hazardous constituents are at significantly higher levels in products made from hazardous secondary materials than in analogous products that contain such hazardous constituents, or when the product exhibits one or more of the hazardous characteristics and the analogous product does not. An analogous product can either be the final product of manufacturing or, in some cases, an intermediate in a process. These hazardous constituents are often called "toxics along for the ride" (TARs) and, if present, could be an indicator of discard.

This factor is the second of the two legitimacy factors that EPA believes needs to be considered but, in some cases, does not need to be met for the recycling activity to be considered legitimate. We modified the language of this factor since the October 2003 proposal and are finalizing the factor basically as proposed in the March 2007 supplemental proposal. The regulatory text for the factor can be found in 40 CFR 260.43(c)(2) and it states that the person making the determination should look at the product of the recycling process and compare it to analogous products that are made without hazardous secondary materials. The person making the determination should examine the concentrations of hazardous constituents to learn whether the product of the recycling process contains significant concentrations of hazardous constituents when the analogous product contains none, whether it contains significantly elevated levels of hazardous constituents when compared to the analogous product that contain such hazardous constituents, or whether it exhibits a hazardous characteristic when the analogous product does not.

The Agency received many comments on the fourth factor in response to both the October 2003 proposal and the March 2007 supplemental proposal. The comments the Agency received on Factor 4 were very mixed, ranging from commenters who argued that this factor should be one of the factors that must be met to those who stated that the factor is irrelevant and should not be considered as part of a legitimacy determination.

EPA's Response: Factor 4—Comparisons of Toxics in the Product

Today, we are finalizing this factor as one of the two factors that must be considered during a legitimacy determination, but not necessarily met. EPA maintains that this factor is an important way of determining whether a recycling process is, in fact, true recycling rather than a "sham."

If hazardous secondary materials with a toxic constituent or toxic constituents in amounts or concentrations greater than analogous raw materials are simply being run through a manufacturing process, it is an indication that those hazardous secondary materials may be being discarded in the guise of recycling. Toxics that are illegally disposed of in this manner can become exposure risks and could harm human health and the environment. EPA has jurisdiction over materials being discarded and, therefore, is requiring that this factor be considered in legitimacy determinations. The factor is not one of the mandatory factors because the Agency has identified situations where higher levels of toxic constituents may not be relevant or applicable and, thus, would not be an indicator of "sham" recycling if this factor is not met, as discussed in section IX of this preamble. In these cases, the facility could make a determination of legitimacy without meeting this factor, but should be prepared to explain why its recycling is legitimate.

Comments: Factor 4—the Term "Significant" and Alternative Approaches

Many of these comments sought further guidance on the meaning of the term "significant" in the proposed regulatory text, stating that the definition in the proposal was unclear or subjective, which may lead to a wide range of possible interpretations of the term. Commenters also expressed concern that a definition that is too vague may discourage recycling. In a related topic, commenters also responded to EPA's request for comments on two alternate approaches in the October 2003 proposal: (1) An approach that would establish a "bright line" for complying with the factor by specifically defining the terms "significant amounts" and "significantly elevated" in the regulatory text and (2) an approach that would require the use of risk assessment tools to determine if a product with elevated levels of a hazardous constituent due to use of hazardous secondary materials in its manufacture process posed a greater risk to human

health or the environment than the analogous product made from raw materials.

On the whole, commenters were not enthusiastic about the two alternative approaches that EPA suggested. Most commenters stated that a specific test of either nature would not be appropriate because of the wide variety of recycling situations to which it would have to apply.

EPA's Response: Factor 4—the Term "Significant" and Alternative Approaches

The Agency believes that designing a specific test, such as those described in the preamble to the October 2003 proposal, that is applicable to the many different recycling scenarios possible in the exclusions and non-waste determinations would be difficult, if not impossible. Thus, we agree with those commenters who argued against adopting such a specific test. Therefore, the Agency has more clearly described in this preamble to the final rule what it means by "significant" so that members of the regulated community can be confident in their evaluations of whether their products made from hazardous secondary materials contain "toxics along for the ride." Therefore, members of the regulated community will neither be discouraged from recycling nor be forced to seek an opinion from a regulatory agency in every case. Details on implementation of this factor are in section IX of today's preamble.

Comments: Factor 4—Comparing the Products Instead of Hazardous Secondary Materials

Most commenters responded positively to a change the Agency made in its October 2003 proposal to compare the product of the recycling process to the analogous product made from raw materials rather than comparing the hazardous secondary materials to the analogous raw materials. EPA discussed this shift in its October 2003 proposal at 68 FR 61586–61587.

However, several commenters argued that the change is an attempt by the Agency to regulate products or stated that certain unique elements of their production processes made it so that this factor should not apply to their industry or their particular process. In addition, some commenters were concerned that under this factor, in some cases, the generator would have to know what was being done with its hazardous secondary material several steps downstream in the recycling process when it was incorporated into a final product.

EPA's Response: Factor 4—Comparing the Products Instead of Hazardous Secondary Materials

The Agency believes that for an entity to ensure that hazardous secondary materials are being legitimately recycled and not discarded, it needs to know what happens to the hazardous secondary materials once they leave the generator's control. However, in response to these comments, we are clarifying in today's preamble that the final legitimacy factor allows the entity conducting the legitimacy determination to make the comparison on "toxics" either between the final products or between the hazardous secondary material and the analogous raw material it replaces. If the comparison of materials going into the process shows no significant difference in levels of toxics, the product of the recycling process will not significantly differ from analogous products in those levels either. In cases where the generator finds it too complex to compare the product from its recycling process to the analogous product made from the virgin raw material, it can, instead, compare the chemistry of the materials going into the process to evaluate this factor.

Comments and EPA's Response: Relevance of Factor 4 to a Particular Process

Regarding the implementation of this factor, several commenters raised the concern that many products that are made from hazardous secondary materials do not have analogous products made from raw materials because they are always or have always been made from a combination of primary and in-process materials and that these are cases where this factor is not relevant to that particular recycling process. The commenters stated that this is especially true in the mineral extraction industries, but also may be the case in other industries as well.

The Agency is aware that there are situations where there may not be analogous products made from raw materials. In that case, the facility can opt to compare the toxic constituents in the hazardous secondary material it is using against those in an analogous raw material instead. We also note that while this factor needs to be considered, it is not mandatory because EPA recognizes that in some situations, it will not be relevant to a particular industrial process. In the case where the facility considers this factor and decides that it is not applicable to its process, the Agency suggests that the facility evaluate the presence of hazardous constituents in its product and document both that it considered this factor and the reasons it believes the factor is not relevant.

E. Consideration of Economics in Legitimacy

Comments: Economics Considerations

EPA received several comments in response to the preamble discussion about how to consider economics in the context of making legitimacy determinations in the March 2007 supplemental proposal. EPA did not propose that economic consideration be codified within the regulatory definition of legitimate recycling and instead offered guidance on how economic consideration is relevant to determining the legitimacy of a recycling operation.

EPA received only positive comments on the preamble discussion about consideration of economics in legitimacy. Specifically, EPA agrees with commenters who supported our position on the following: The economics of recycling are relevant to making legitimacy determinations, the economics of recycling are in fact different from traditional manufacturing, a recycling activity can be legitimate if a recycler charges a fee to accept hazardous secondary materials, economic considerations need to take into account the fluctuations in market prices of raw materials, and negative economic factors can contribute to environmental problems, such as speculative accumulation, abandonment, and sham recycling.

However, EPA received many comments from both industry and recycling associations that opposed the October 2003 proposal to codify the economics consideration as a separate "factor to be considered." These commenters generally argued that consideration of economics was inherent within the four legitimacy factors (e.g., both of the mandatory factors, as well as the two factors which must be considered) and, therefore, a separate factor was not warranted. On the other hand, a few commenters (primarily states) requested that EPA codify a separate economics factor to be considered and they supported the inclusion of an enforceable factor for legitimacy determinations.

EPA's Response: Economics Considerations

EPA agrees with those commenters who argued that economic considerations are inherent within the legitimacy factors. We believe that one specific factor cannot encompass all

economic scenarios for the entire universe of hazardous secondary materials recycling. Furthermore, we do not believe that a separate enforceable factor in the regulations strengthens the definition of legitimate recycling, but we do believe that articulating how economic considerations can influence the legitimacy factors adds real value to the legitimacy determinations made by state regulators and the regulated community.

Based on the comments we received, the Agency is not codifying specific regulatory language on economic considerations. Instead, today's preamble offers guidance and clarification on how economics may be considered in making legitimacy determinations, similar to the preamble discussion in the March 2007 supplemental proposal. For more detailed information on economic considerations, please refer to "How consideration of economics applies to legitimacy" in section IX of today's rulemaking.

Comments and EPA's Response: Specific Test for Economics

EPA received some comments on the need for a specific test for consideration of economics. Commenters that supported a specific test believed it could include an accounting of economic flows over a period of time to determine longevity; an annual regulatory review of markets and a facility's economics; a "rebuttable presumption that the recycling is legitimate where the recycler pays for the secondary materials," similar to manufacturing operations; and a requirement that payment for recycled products and intermediates be more than nominal if considered to be a sign of positive economics. One comment was also submitted which expressly opposed a specific test, citing that markets fluctuate too much to analyze the flows of revenues.

EPA believes that none of the examples suggested by the commenters are applicable to a broad universe of recycling activities. We also acknowledge that fluctuations in markets for hazardous secondary materials and recycled products, and subsequent impacts in revenue flows, create another challenging aspect of developing a test for the consideration of economics. Therefore, we believe that it is not possible to craft an economic test for legitimacy that can accommodate all legitimate recycling activities. As stated in section IX of today's rulemaking, we believe that this preamble discussion provides sufficient guidance on how to consider economics in legitimacy determinations.

F. Documentation of Legitimacy

Comments and EPA's Response: Documentation of Legitimacy

Several of the public comments stated that it is important that the hazardous secondary material generator or recycler of a recycled material maintain documentation that substantiates how the recycling activity complies with the legitimacy requirements. The comments stated that these records would show how the recycling activity meets the factors or, if a factor is not applicable, the records would document why it is not necessary for it to meet that factor. In this way, the hazardous secondary material generator or recycler could show that it considered all the factors. Other commenters objected to any recordkeeping requirements documenting that a recycling activity is legitimate.

After considering the comments, the Agency has determined that for the purpose of the legitimacy factors in the final rule, 40 CFR 261.2(f) applies. Section 261.2(f) states that, in the context of an enforcement action to implement Subtitle C of RCRA, a person claiming that a material is not a solid waste or is conditionally exempt from regulation is responsible for showing that they meet the terms of the exclusion and must provide appropriate documentation to show why they are eligible. For the legitimacy requirements finalized today, this provision would require that persons claiming that their recycling activity is legitimate would have the burden to provide documentation showing how the hazardous secondary materials provide a useful contribution to the recycling process and how the product of the recycling activity—whether it is a consumer product or a process intermediate—is valuable. In addition, the documentation would have to show that the hazardous secondary material generator or recycler considered the other two factors and determined for each of them that either the activity meets the factor or that the factor does not apply to this recycling activity and why it is not relevant or appropriate to consider.

In addition, as part of today's transfer-based exclusion, the hazardous secondary material generator has to undertake reasonable efforts to ensure its hazardous secondary materials will be legitimately recycled pursuant to § 260.43. As part of the reasonable efforts requirements, generators must document their reasonable efforts per § 261.4(a)(24)(v)(C).

XIX. Major Comments on the Non-Waste Determination Process

In the March 2007 supplemental proposal, EPA proposed a non-waste determination process that would provide persons with an administrative process for receiving a formal determination that their hazardous secondary materials are not discarded and, therefore, not solid waste. The process would be voluntary and available in addition to the two self-implementing exclusions. EPA proposed three types of non-waste determinations: (1) For hazardous secondary materials reclaimed in a continuous industrial process; (2) for hazardous secondary materials indistinguishable in all relevant aspects from a product or intermediate; and (3) for hazardous secondary materials reclaimed under the control of the generator, such as through contracts similar to tolling arrangements. For each type of non-waste determination, EPA proposed a set of criteria which the hazardous secondary materials would have to meet in order to receive a formal non-waste determination from the regulatory authority. For a detailed description of the non-waste determination process that EPA is finalizing today, see section X of today's preamble.

Comments: Finalizing the Non-Waste Determination Process

Overall, many commenters supported the non-waste determination process because it provides persons with regulatory certainty and offers a flexible alternative to the self-implementing exclusions included in today's rule. On the other hand, some commenters argued that the non-waste determination process would be resource-intensive, placing a significant burden on the states that would have to perform a case-by-case review of each application. One commenter said that, historically, many hazardous waste facilities have sought formal approval of their recycling practices from regulators and that EPA may be underestimating the number of applications that states would receive from the regulated community. Additionally, one state commenter mentioned that the non-waste determination process would increase regulatory inconsistency between states and at least two state commenters saw no reason to establish a formal non-waste determination process since they viewed the current variance procedure under 40 CFR 260.33 and their own state

determination processes as an effective means to the same end. Finally, a few commenters did not support the non-waste determination process because of its lack of explicit conditions, such as those conditions required for the two self-implementing exclusions in today's rule.

EPA's Response: Finalizing the Non-Waste Determination Process

EPA agrees with the majority of commenters who support the non-waste determination process as an alternative way for hazardous secondary material generators to seek regulatory certainty in circumstances involving reclamation of hazardous secondary materials which do not clearly fit under today's self-implementing exclusions. EPA, however, does not agree with commenters who believe the non-waste determination would cause significant burden to states. Instead, we anticipate that the vast majority of persons will choose to use the self-implementing exclusions because this would be less resource intensive for the facility. In fact, the Agency does not envision any person submitting such an application if they are considered "under the control of the generator" because there are relatively few restrictions for this exclusion, and, indeed, it would probably require less effort than seeking a non-waste determination. Thus, the Agency only expects a limited number of persons to submit applications where the regulatory status is unclear under today's exclusions and a formal non-waste determination may be appropriate. EPA further believes that, by modeling the non-waste determination process after the current variance procedures, it has kept the additional burden to the states at a minimum because states can leverage their existing processes.

EPA believes that requiring explicit conditions, such as those required for today's self-implementing exclusions, is not warranted for hazardous secondary materials receiving non-waste determinations because persons are, instead, required to make specific demonstrations as to how the hazardous secondary materials meet the eligibility criteria. Furthermore, regulatory authorities, if they so choose, may stipulate conditions within the non-waste determination as appropriate and relevant on a case-by-case basis. One purpose of the non-waste determination is to provide a measure of flexibility not provided by the self-implementing solid waste exclusions and specifying the conditions to be imposed would defeat this purpose.

With respect to the comment regarding inconsistency among state non-waste determinations, EPA notes that, by allowing states to become authorized to conduct their own RCRA hazardous waste programs, the RCRA statute provides states flexibility to regulate hazardous waste more stringently than required under the federal regulations. Additionally, states sometimes take different interpretations of the same or similar regulations. This situation ultimately leads to variations between state regulations and interpretations, which EPA views as inherent to the RCRA structure and, thus, not a quality unique to the non-waste determination process.

We also want to clarify that, although today's non-waste determination process is similar to the current variance procedures, non-waste determinations are technically not variances in which EPA regulations otherwise classify materials as solid wastes and facilities may apply for an exception. Instead, the new procedure would apply to cases in which hazardous secondary materials are not discarded, but which do not fit within the self-implementing exclusions, or for which the restrictions and conditions of the exclusions are not applicable.

A. Eligibility for Non-Waste Determination Process

Comments: Scope of Non-Waste Determinations

In the March 2007 supplemental proposal, EPA indicated that non-waste determinations would be limited to reclamation activities and would not apply to recycling of "inherently waste-like" materials, as defined at 40 CFR 261.2(d), recycling of materials that are "used in a manner constituting disposal," or "used to produce products that are placed on the land," (40 CFR 261.2(c)(1)), or "burning materials for energy recovery" or "used to produce a fuel or otherwise contained in fuels" (40 CFR 261.2(c)(2)).

EPA received a number of comments urging the Agency to broaden the non-waste determinations to include all recycling scenarios in which hazardous secondary materials are not discarded. Some commenters supported expanding the scope to allow recycling for "burning for energy recovery" and "use constituting disposal." These commenters argued that EPA could achieve further increases in recycling if the Agency broadened the scope of the hazardous secondary materials eligible to apply for a non-waste determination. On the other hand, some commenters agreed with EPA's proposed scope and supported limiting eligibility to only hazardous secondary materials being reclaimed. Alternatively, a few commenters supported limiting eligibility only to those circumstances where the recycling of hazardous secondary materials would not meet either a condition of the self-implementing exclusions or one of the legitimacy criteria, but still would not be considered discard. These commenters also argued that narrowing the eligibility would effectively limit the number of applications submitted and thus reduce the overall burden on the states.

EPA's Response: Scope of Non-Waste Determinations

EPA agrees with those commenters who supported limiting non-waste determinations to reclamation activities. With respect to "burning for energy recovery" and "use constituting disposal," EPA confirms that these types of recycling are ineligible for today's non-waste determination process. EPA believes that these types of recycling activities would best be left to other rulemaking proceedings. Furthermore, we disagree with those commenters who suggest further limiting the eligibility to only those cases where reclamation of the hazardous secondary materials would specifically violate a condition of today's self-implementing exclusions. We believe that by modeling the non-waste determination procedure after the existing variance procedure, we have ensured that any additional burden to the states will be kept at a minimum and thus further limits on eligibility are not necessary.

Comments: Whether the Hazardous Constituents in the Hazardous Secondary Materials Are Reclaimed Rather Than Released to the Air, Water, or Land

Overall, we received only a few comments that discussed the specific criteria that EPA proposed for the non-waste determinations. For the criterion regarding whether the hazardous constituents in the hazardous secondary materials are reclaimed rather than released to the air, water, or land at significantly higher concentrations, some commenters argued that this criterion was inappropriate for determining discard because these types of releases are inevitable when reclaiming hazardous secondary materials. At least two commenters suggested that EPA should establish a "bright line" to clearly define "significantly higher concentrations" in order to provide persons with greater

regulatory certainty. Other commenters expressed concern that this criterion (as well as the other criteria within 40 CFR 260.34) would be construed to apply to other types of recycling, including those eligible for today's self-implementing exclusions.

EPA's Response: Whether the Hazardous Constituents in the Hazardous Secondary Materials Are Reclaimed Rather Than Released to the Air, Water, or Land

EPA disagrees with commenters who believe this criterion is not relevant for determining if hazardous secondary materials are being discarded. By indicating that such releases must not be at "significantly higher concentrations" than would otherwise be released during the production process, we believe we have set a reasonable and meaningful bar that applicants must meet in order to demonstrate that their hazardous secondary materials are reclaimed and not discarded. Hazardous secondary materials that fail to meet this criterion may exhibit an indication that they are discarded and that such handling may present a greater risk of adverse impacts to human health and the environment. Regarding those commenters who support a "bright line" in order to define "significantly higher concentrations," EPA believes that, given the wide variety of production processes and recycling practices, establishing a "one size fits all" objective standard is not practical and would invite inefficiency.

EPA also confirms that this criterion, and the other criteria in 40 CFR 260.34, are specific to the relevant non-waste determinations, and thus are not required for the self-implementing exclusions or those exclusions found in 40 CFR 261.4, unless they are specifically included under state regulations as a criteria to consider.

Comments and EPA's Response: Whether the Capacity of the Production Process Would Allow for Use of the Hazardous Secondary Material in a Reasonable Time Frame

For the criterion regarding whether the capacity of the production process would allow for use of the hazardous secondary material in a reasonable time frame (proposed explicitly for the non-waste determination for hazardous secondary materials reclaimed in a continuous industrial process), some commenters regarded this criterion as consistent with judicial direction and, thus, supported adding this criterion to the other non-waste determinations. Since EPA would consider hazardous secondary materials that were eternally "stored" for future recycling to be akin to discard, EPA agrees with these commenters that all non-waste determinations should take into account whether the hazardous secondary materials will be reclaimed within a "reasonable time frame." Therefore, in this final rule, EPA has added this criterion (with appropriate modifications to the language) to the non-waste determination for hazardous secondary materials indistinguishable in all relevant aspects from a product or intermediate. As with the non-waste determination for hazardous secondary materials reclaimed in a continuous industrial process, a person does not need to demonstrate that the hazardous secondary material meets the speculative accumulation limits per 40 CFR 261.1(c)(8), but he must provide sufficient information about the hazardous secondary material and the process to demonstrate that the material will in fact be reclaimed in a reasonable time frame and will not be abandoned. However, a person may still choose to use the speculative accumulation time frame as a default if he so chooses.

Comments: Non-Waste Determination for Hazardous Secondary Materials Reclaimed Under the Control of the Generator

A few commenters disagreed with the non-waste determination for hazardous secondary materials reclaimed under the control of the generator via a tolling arrangement or similar contractual arrangement. These commenters believed that the generator would be unable to maintain control over its hazardous secondary materials and residuals once at the reclamation facility and, thus, could not reliably meet the criteria for this non-waste determination. One state foresaw major enforcement problems with situations involving a commercial facility that handles hazardous secondary materials from multiple customers in a single process and then mismanages the residuals from that unit. As the residuals would be linked back to multiple generators, the liability for the mismanaged residuals would be difficult to detangle. On the other hand, some commenters felt that all tolling arrangements, including those eligible for the self-implementing exclusion, would best be evaluated through the non-waste determination process. These commenters argued that the regulatory authority should be required to review all tolling arrangements and their respective liability provisions in order to ensure that the hazardous secondary materials will not be discarded.

EPA's Response: Non-Waste Determination for Hazardous Secondary Materials Reclaimed Under the Control of the Generator

We did not intend for such circumstances where a hazardous secondary material generator was unable to maintain control and responsibility over his hazardous secondary materials to be eligible for a non-waste determination for hazardous secondary materials reclaimed under the control of the generator. Where an applicant's hazardous secondary materials are intermingled with materials from other hazardous secondary material generators in a way that renders the applicant unable to maintain control and liability over his specific materials, the applicant would have been effectively precluded from obtaining this formal non-waste determination since he would ultimately fail the first criterion.

EPA, however, has decided not to finalize the non-waste determination for materials reclaimed under the control of the generator because EPA could not identify any comments which described in detail other specific situations involving tolling or contractual arrangements that would not already be covered under today's self-implementing generator-controlled exclusion. We, therefore, remain unclear as to what other arrangements exist where the generator would retain control over its hazardous secondary materials to ensure they are reclaimed and not discarded. Without this clear picture, EPA believes we cannot finalize this non-waste determination and thus we are not including it in today's final rule.

B. Process for Non-Waste Determinations

In the March 2007 supplemental proposal, EPA proposed that the non-waste determination process would be the same as that for the solid waste variances found in 40 CFR 260.33. In order to obtain a non-waste determination, a facility must apply to the Administrator or the authorized state. The Administrator or authorized state evaluates the application and issues a draft notice and opportunity for comment in the locality where the facility is located. The Administrator or authorized state would then issue a final decision based on the evaluation of the comments received.

Comments and EPA's Response: Requirement To Renew Applications

A few commenters argued that non-waste determinations should be

renewed, either periodically or in the event of certain changes to the recycling process, so that regulators can ensure that the hazardous secondary materials continue to be reclaimed and not discarded.

EPA agrees with those commenters who believe that certain changes in the recycling process should logically trigger a re-review of the circumstances. Therefore, in the event of a change that affects how hazardous secondary materials meet one or more of the criteria upon which a non-waste determination has been based, EPA is requiring persons to re-apply to the Administrator or the authorized state for a formal determination that the hazardous secondary material continues to meet the relevant criteria and is not discarded and, therefore, not a solid waste.

Comments and EPA's Response: Timelines for Regulators

Some commenters expressed concerns about the length of time an applicant would need to wait before receiving a formal determination from their regulatory authority, explaining that particularly lengthy delays would adversely affect business operations. Although we understand this concern, requiring non-waste determinations to be made within a specific time frame would be difficult, as each case varies in complexity with some requiring more time to review than others. Furthermore, EPA would be challenged to prescribe one time frame that would accommodate numerous state regulatory agencies that vary in staffing and workloads. Therefore, we are not requiring regulators to issue determinations within a certain period of time.

Comments and EPA's Response: Public Comment Process

At least two commenters suggested updating the format for public notice. For example, instead of requiring notice through a "newspaper advertisement or radio broadcast" (as EPA proposed), public notice should be allowed to include electronic formats, such as posting on a Web site or distribution through e-mail, in order to reduce costs. Other commenters supported requiring public notice for a broader audience, not necessarily limited to the "locality where the recycler is located." These commenters argued that non-waste determinations may have national implications and would be more appropriately published in the **Federal Register** or made available through the EPA Docket Center.

In response to these comments, EPA notes the non-waste determination process was purposely structured to follow the same procedures as outlined for solid waste variances in 40 CFR 260.33 in order to leverage the existing structure and keep additional burden on the states to a minimum. EPA, furthermore, believes that any changes to the type of format required for public notice would be more appropriately handled as part of a separate, wholesale effort to update all public notice requirements in the federal hazardous waste regulations. Therefore, for today's rule, EPA is retaining the same public notice provisions as proposed and required in 40 CFR 260.33.

XX. How Will These Regulatory Changes Be Administered and Enforced in the States?

A. Applicability of Rules in Authorized States

Under section 3006 of RCRA, EPA may authorize qualified states to administer the RCRA Subtitle C hazardous waste program within the state. Following authorization, EPA retains Subtitle C enforcement authority, although authorized states have primary enforcement responsibility. EPA retains authority under sections 3007, 3008, 3013, 3017 and 7003. The standards and requirements for state authorization are found at 40 CFR part 271.

Prior to enactment of the Hazardous and Solid Waste Amendments of 1984 (HSWA), a state with final RCRA authorization administered its hazardous waste program entirely in lieu of EPA administering the federal program in that state. The federal requirements no longer applied in the authorized state and EPA could not issue permits for any facilities in that state, since only the state was authorized to issue RCRA permits. When new, more stringent federal requirements were promulgated, the state was obligated to enact equivalent authorities within specified time frames. However, the new federal requirements did not take effect in an authorized state until the state adopted the federal requirements as state law.

In contrast, under RCRA section 3006(g) (42 U.S.C. 6926(g)), which was added by HSWA, new requirements and prohibitions imposed under HSWA authority take effect in authorized states at the same time that they take effect in unauthorized states. EPA is directed by the statute to implement these requirements and prohibitions in authorized states, including the issuance of permits, until the state is granted authorization to do so. While states must still adopt HSWA related provisions as state law to retain final authorization, EPA implements the HSWA provisions in authorized states until the states do so.

Authorized states are required to modify their programs only when EPA enacts federal requirements that are more stringent or broader in scope than existing federal requirements. RCRA section 3009 allows the states to impose standards more stringent than those in the federal program (*see* 40 CFR 271.1). Therefore, authorized states may, but are not required to, adopt federal regulations, both HSWA and non-HSWA, that are considered less stringent than previous federal regulations.

B. Effect on State Authorization

Today's rule eliminates specific requirements that apply to hazardous secondary materials currently managed as hazardous waste. EPA believes that today's final rule describes the appropriate scope of the federal program under RCRA. These exclusions will encourage recycling and are consistent with RCRA's statutory objective of conserving valuable material and energy resources.

EPA strongly encourages states to adopt the regulations being finalized today. When EPA authorizes a state to implement the RCRA hazardous waste program, EPA determines whether the state program is consistent with the federal program and whether it is no less stringent. This process, codified in 40 CFR part 271, ensures national consistency and minimum standards, while providing flexibility to the states in implementing the rules. In making this determination, EPA evaluates the state requirements to ensure they are no less stringent than the federal requirements. Because today's rule eliminates specific requirements for hazardous secondary materials that are currently managed as hazardous waste, state programs would no longer need to include those specific requirements in order to be consistent with EPA's regulations.

However, if a state were, through implementation of state waiver authorities or other state laws, to allow compliance with the provisions of today's rule in advance of adoption or authorization, EPA would not generally consider such implementation a concern for purposes of enforcement or state authorization. Of course, the state could not implement the requirements in a way that was less stringent than the federal requirements in today's rule.

In the case of the case-by-case non-waste determinations found in 40 CFR 260.34, a non-waste determination may be granted by the state if the state is either authorized for this provision or if the following conditions are met: (1) The state determines the hazardous secondary material meets the applicable criteria for the non-waste determination; (2) the state requests that EPA review its determination; and (3) EPA approves the state determination.

It should be noted that, under RCRA section 3009, a state may adopt standards that are more stringent than the federal program. Thus, a state is not required to adopt today's final rule or a state may choose to adopt only parts of today's final rule. Some states incorporate the federal regulations by reference or have specific state statutory requirements that their state program can be no more stringent than the federal regulations. In those cases, EPA anticipates that the exclusions in today's final rule will be adopted by these states, consistent with state laws and state administrative procedures, unless they take explicit action as specified by their respective state laws to decline the revisions. We note that if states choose not to adopt the provisions of today's final rule concerning exports, then any hazardous secondary materials that are exported would be subject to the hazardous waste export requirements in 40 CFR part 262 subparts E or H, or analogous export requirements that are part of a state's RCRA authorized program. EPA also notes that, as described in this preamble, we believe that the legitimacy provision finalized in § 260.43 is substantially the same as and no more stringent than the existing regulatory scheme in which all recycling must be legitimate. If a state agency were to adopt the four legitimacy factors in § 260.43 for all recycling, EPA would consider their regulations to be equivalent to the federal requirements.

XXI. Administrative Requirements for This Rulemaking?

A. Executive Order 12866: Regulatory Planning and Review

Under section 3(f)(1) of Executive Order (EO) 12866 (58 FR 51735, October 4, 1993), this action is a "significant regulatory action" because today's action contains novel policy issues (EO 12866 Section 3(f)(4)) and because its potential impact on the economy will be greater than the $100 million or more annual effect, meeting the "economically significant" threshold of EO 12866 Section 3(f)(1). Because this rule meets two of the EO 12866 "significant" criteria, EPA submitted this action to the Office of Management and Budget (OMB) for review under EO 12866 and any changes made in response to OMB's recommendations have been documented in the docket for this action. EPA also prepared an analysis of the potential economic costs and benefits associated with this proposed action. The analysis is contained in our "Regulatory Impact Analysis" (RIA) which is available from the docket (*http://www.regulations.gov*) and is briefly summarized below.

Assuming full adoption of this final rule by all RCRA-authorized states, EPA's best estimate (i.e., "expected value") of the future average annual net benefits of this final rule to the national economy is $95 million per year, affecting about 5,600 facilities in 280 industries in 21 economic sectors. However, the sensitivity analysis section of our RIA for this final rule identifies 11 numerical uncertainty factors behind our calculation of this best estimate. Future variation in one or more of these factors may result in future annual net benefits ranging between $19 million to $333 million in any given future year. Therefore, EPA is classifying this final rule as "economically significant" because the $333 million per year upper-bound of our net benefits uncertainty range exceeds the $100 million "annual effect" threshold established by section 3(f)(1) of the 1993 Executive Order 12866."

This action is expected to remove from RCRA regulation 1.5 million tons per year of hazardous secondary materials currently managed as RCRA hazardous waste. These affected hazardous secondary materials consist of about 98% that are currently reclaimed as RCRA hazardous waste, and about 2% of hazardous waste that is currently disposed of (e.g., landfilled, incinerated, or deepwell injected), which EPA expects may switch from disposal to reclamation as a result of this action. This $95 million annual net cost savings estimate is 11% less than the $107 million annual net cost savings estimated in our 2007 RIA in support of the March 2007 supplemental proposal for this action. This difference is largely explained by enhancements made to the methodology of the RIA based on public comments received from 30 organizations on our 2003 and 2007 RIA's in support of this action, as well as by updates of key data underlying the RIA.

These impact estimates are EPA's best estimates within the economic impact estimation uncertainty range of $19 million to $333 million in annual materials management cost savings for the net effect of the exclusions. These impact ranges reflect the overall uncertainty range of −80% to +249% across eleven different uncertainty factors addressed as a sensitivity analysis in our RIA. The specific uncertainty factors evaluated are (1) state government adoption, (2) future fluctuations in affected hazardous secondary materials generation tonnages, (3) within-year discrepancies between hazardous secondary materials generation and corresponding management tonnages, (4) future industrial production levels, (5) omission of SQG facility counts in our impact estimates by artifact that we based the impacts on LQG and TSDRF data from the RCRA Biennial Report database, (6) Biennial Report database quality assurance considerations, (7) physical and chemical quality of the hazardous secondary materials affected, (8) impact estimation methodology level of effort, (9) changes in future market price of commodities recovered from recycled material, (10) the possibility of same-company facilities sharing offsite captive recycling facility, and (11) the possibility of baseline disposal switchover to onsite recycling. Concerning the uncertainty of state government adoption, included as one component of potential industry cost savings is the transfer effect of an expected $5 million reduction in future annual state government hazardous waste fee revenues if all state governments adopt today's rule.

With respect to each of the regulatory exclusions in today's action, the $95 million per year net cost savings effect consists of approximately (a) $7 million per year for hazardous secondary materials reclaimed under the control of the generator in either land or non-land based units (which includes on-site, same-company, and tolling exclusions), plus (b) $87 million per year cost savings for exclusion of other offsite transfers, plus (c) $1 million per year in cost savings for case-by-case non-waste determinations.

Embedded in this overall impact estimate is $4.7 million per year in potential commodity market value of three categories of 15 constituents in affected materials we expect may begin to be recovered from hazardous secondary materials that would otherwise continue to be disposed of as hazardous wastes in the absence of today's action: (1) Commodity metals (chromium, copper, lead, molybdenum disulfide, nickel, zinc), (2) commodity solvents (acetone, alkyl benzenes, C9–C10 alkyl benzenes, methanol, methyl ethyl ketone, toluene, xylene), and (3)

other commodity materials (acids, carbon). However, the RIA estimate of potential new induced recycling does not include an evaluation of whether the U.S. or global recycling markets are large enough to sustain this potential future increase in supply of recovered materials. Market conditions for recycled hazardous secondary materials can vary considerably over time. Demand for recycled solvents, for example, is largely dependent on the petroleum market because virgin solvents are made from petroleum products, and high petroleum prices encourage solvent recycling. Similarly, high metals prices obviously favor the recycling of metal-bearing hazardous secondary materials.

The RIA, available from the docket (*http://www.regulations.gov*), provides many more details and descriptions about these assorted components of expected economic impacts, including potential distributional effects on other industries not directly subject to today's action.

B. Paperwork Reduction Act (Information Collection Request)

The information collection requirements in this rule have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The information collection requirements are not enforceable until OMB approves them. The information collection request has been updated since the March 2007 supplemental proposal to reflect the final rule requirements and to respond to public comments.

The information requirements established for this action are voluntary to the extent that the exclusions being finalized today are voluntary and represent an overall reduction in burden as compared with the alternative information requirements associated with managing the hazardous secondary materials as hazardous waste. The information requirements help ensure that (1) entities operating under the regulatory exclusions contained in today's action are held accountable to the applicable requirements; (2) state inspectors can verify compliance with the restrictions and conditions of the exclusions when needed; and (3) hazardous secondary materials exported for recycling are actually handled as commodities abroad.

For the recordkeeping and reporting requirements applicable to hazardous secondary materials sent for reclamation, the aggregate annual burden to respondents over the three-year period covered by this ICR is estimated to be 11,552 hours, with a cost to affected entities (*i.e.*, industrial facilities) of $1,417,242. However, this represents an annual reduction in burden to respondents of 52,050 hours, representing a cost reduction of $3,474,035 per year. The estimated annual operation and maintenance costs to affected entities are $739,469 per year, primarily for purchasing audit or other similar type reports. There are no startup costs and no costs for purchases of services. Administrative costs to the Agency are estimated to be 1,257 hours per year, representing an annual cost of $49,891. Burden is defined at 5 CFR 1320.3(b).

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

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 *et seq.*, generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute, unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. For more information regarding the expected economic impact of this action, please refer to our "Regulatory Impact Analysis" available from the docket for this final rule.

After considering the economic impacts of this final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. In determining whether a rule has a significant economic impact on a substantial number of small entities, the impact of concern is any significant *adverse* economic impact on small entities, since the primary purpose of the regulatory flexibility analyses is to identify and address regulatory alternatives "which minimize any significant economic impact of the rule on small entities." 5 U.S.C. 603 and 604. Thus, an agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, or otherwise has a positive economic effect on all of the small entities subject to the rule. Because today's action is designed to lower the cost of industrial hazardous secondary materials management for entities subject to today's requirements, this final rule will not result in an adverse economic impact effect on affected small entities. EPA therefore concludes that today's action will relieve regulatory burden for all size entities, including small entities.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on state, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to state, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any one 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.

EPA has determined that this rule does not include a Federal mandate that may result in expenditures of $100 million or more for state, local, or tribal governments, in the aggregate, or the private sector in any one year. This is because this rule imposes no enforceable duty on any state, local, or tribal governments. Although one public commenter noted that many states choose to incorporate EPA's regulations by reference, EPA does not require them to do so. EPA also has determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments. In addition, as discussed above, the private sector is not expected to incur costs exceeding $100 million. Therefore, today's rule is not subject to the requirements of sections 202 and 205 of UMRA.

E. Executive Order 13132: Federalism

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

This final rule does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. There are no state and local government bodies that incur direct compliance costs by this rulemaking. State and local government implementation expenditures are expected to be less than $500,000 in any one year. Thus, the requirements of Section 6 of the Executive Order do not apply to this final rule. Although one public commenter noted that many states choose to incorporate EPA's regulations by reference, EPA does not require them to do so.

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

Executive Order 13175, entitled Consultation and Coordination with Indian Tribal Governments (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure a meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications. This final rule does not have tribal implications, as specified in Executive Order 13175. It does not significantly or uniquely affect the communities of Indian tribal governments, nor would it impose substantial direct compliance costs on them. Thus, Executive Order 13175 does not apply to this final rule.

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

This action is not subject to EO 13045 (62 FR 19885, April 23, 1997) because the Agency does not believe the environmental health risks or safety risks addressed by this action present a disproportionate risk to children. An assessment of countervailing risk and a discussion of how today's rule addresses those risks can be found in Chapter 11 of the Regulatory Impact Analysis, found in the docket for today's rulemaking.

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

This final rule is not a "significant energy action" as defined in Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355, May 22, 2001) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. This final rule reduces regulatory burden and as explained in our Regulatory Impact Analysis, may possibly induce fuel efficiency and energy savings from the voluntary shifting of some types of hazardous secondary materials, where it is cost-effective for firms to do so, from current landfill and incineration to reclamation. It therefore should not adversely affect energy supply, distribution, or use.

I. National Technology Transfer and Advancement Act of 1995

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law No. 104–113, 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs EPA to provide Congress, through OMB, explanations of when the Agency decides not to use available and applicable voluntary consensus standards.

This action does not involve technical standards. Therefore, EPA did not consider the use of any voluntary consensus standards.

J. Executive Order 12898: Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Population (February 11, 1994), is designed to address the environmental and human health conditions of minority and low-income populations. EPA is committed to addressing environmental justice concerns and has assumed a leadership role in environmental justice initiatives to enhance environmental quality for all citizens of the United States. The Agency's goals are to ensure that no segment of the population, regardless of race, color, national origin, income, or net worth bears disproportionately high and adverse human health and environmental impacts as a result of EPA's policies, programs, and activities. Our goal is to ensure that all citizens live in clean and sustainable communities. In response to Executive Order 12898, and to the concerns voiced by many groups outside the Agency, EPA's Office of Solid Waste and Emergency Response (OSWER) formed an Environmental Justice Task Force to analyze the array of environmental justice issues specific to waste programs and to develop an overall strategy to identify and address these issues (OSWER Directive No. 9200.3–17).

This final rule would streamline the requirements for certain hazardous secondary materials sent for reclamation. Facilities that would be affected by today's final rule include those generating hazardous secondary materials, as well as facilities which reclaim such materials. Disposal and treatment facilities would not be affected by this final rule. While commenters assert that minorities now comprise a majority in neighborhoods

with commercial hazardous waste facilities, and much larger (over two-thirds) majorities can be found in neighborhoods with clustered facilities, EPA does not believe that such neighborhoods will be adversely impacted by today's rule. As explained in Chapter 11 of the Regulatory Impact Analysis found in the docket to today's rule, EPA has performed an assessment of potential countervailing risks and has determined that the conditions address those risks and no net impact is expected. Thus, overall, no disproportionate impacts to minorities or low income communities are expected.

K. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by Subtitle E of the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), generally provides that before a rule may take effect, the agency promulgating the rule must submit a report containing the rule and other required information to the U.S. Senate, the U.S. House of Representatives, and to the Comptroller General of the United States, prior to publication of the rule in the **Federal Register**. Furthermore, a "major rule" cannot take effect until 60 days after it is published in the **Federal Register**. Today's action is expected to be a "major rule" as defined by 5 U.S.C. 804(2) according to the first of its three "major rule" definitions: "The term "major rule" means any rule that the Administrator of the Office of Information and Regulatory Affairs of OMB finds has resulted in or is likely to result in—(A) an annual effect on the economy of $100,000,000 or more; (B) a major increase in costs or prices for consumers, individual industries, Federal, state, or local government agencies, or geographic regions; or (C) significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic and export markets." EPA has submitted a copy of this rule to each House of the Congress and to the Comptroller General, and this rule will be effective December 29, 2008.

List of Subjects

40 CFR Part 260

Environmental protection, Administrative practice and procedure, Confidential business information, Hazardous waste, Reporting and recordkeeping requirements.

40 CFR Part 261

Environmental protection, Hazardous waste, Recycling, Reporting and recordkeeping requirements.

40 CFR Part 270

Administrative practice and procedure, Hazardous waste, Reporting and recordkeeping requirements, Permit application requirements, Permit modification procedures, Waste treatment and disposal.

Dated: October 7, 2008.

Stephen L. Johnson,

Administrator.

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

PART 260—HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

■ 1. The authority citation for part 260 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921–6927, 6930, 6935, 6937, 6938, 6939 and 6974.

Subpart B—Definitions

■ 2. Section 260.10 is amended by revising the definitions of "Facility" and "Transfer facility" and by adding in alphabetical order the definitions of "Hazardous secondary material," "Hazardous secondary material generated and reclaimed under the control of the generator" and "Hazardous secondary material generator," "Intermediate facility," and "Land-based unit" to read as follows:

§ 260.10 Definitions.

* * * * *

Facility means:

(1) All contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste, or for managing hazardous secondary materials prior to reclamation. A facility may consist of several treatment, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combinations of them).

(2) For the purpose of implementing corrective action under 40 CFR 264.101 or 267.101, all contiguous property under the control of the owner or operator seeking a permit under Subtitle C of RCRA. This definition also applies to facilities implementing corrective action under RCRA Section 3008(h).

(3) Notwithstanding paragraph (2) of this definition, a remediation waste management site is not a facility that is subject to 40 CFR 264.101, but is subject to corrective action requirements if the site is located within such a facility.

* * * * *

Hazardous secondary material means a secondary material (e.g., spent material, by-product, or sludge) that, when discarded, would be identified as hazardous waste under part 261 of this chapter.

Hazardous secondary material generated and reclaimed under the control of the generator means:

(1) That such material is generated and reclaimed at the generating facility (for purposes of this defintion, generating facility means all contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator); or

(2) That such material is generated and reclaimed at different facilities, if the reclaiming facility is controlled by the generator or if both the generating facility and the reclaiming facility are controlled by a person as defined in § 260.10, and if the generator provides one of the following certifications: "on behalf of [insert generator facility name], I certify that this facility will send the indicated hazardous secondary material to [insert reclaimer facility name], which is controlled by [insert generator facility name] and that [insert the name of either facility] has acknowledged full responsibility for the safe management of the hazardous secondary material," or "on behalf of [insert generator facility name] I certify that this facility will send the indicated hazardous secondary material to [insert reclaimer facility name], that both facilities are under common control, and that [insert name of either facility] has acknowledged full responsibility for the safe management of the hazardous secondary material." For purposes of this paragraph, "control" means the power to direct the policies of the facility, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate facilities on behalf of a different person as defined in § 260.10 shall not be deemed to "control" such facilities, or

(3) That such material is generated pursuant to a written contract between a tolling contractor and a toll manufacturer and is reclaimed by the tolling contractor, if the tolling contractor certifies the following: "On behalf of [insert tolling contractor name], I certify that [insert tolling contractor name], has a written contract with [insert toll manufacturer name] to manufacture [insert name of product or intermediate] which is made from specified unused materials, and that [insert tolling contractor name] will

reclaim the hazardous secondary materials generated during this manufacture. On behalf of [insert tolling contractor name], I also certify that [insert tolling contractor name] retains ownership of, and responsibility for, the hazardous secondary materials that are generated during the course of the manufacture, including any releases of hazardous secondary materials that occur during the manufacturing process. For purposes of this paragraph, tolling contractor means a person who arranges for the production of a product or intermediate made from specified unused materials through a written contract with a toll manufacturer. Toll manufacturer means a person who produces a product or intermediate made from specified unused materials pursuant to a written contract with a tolling contractor.

Hazardous secondary material generator means any person whose act or process produces hazardous secondary materials at the generating facility. For purposes of this paragraph, "generating facility" means all contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator. For the purposes of § 261.2(a)(2)(ii) and § 261.4(a)(23), a facility that collects hazardous secondary materials from other persons is not the hazardous secondary material generator.

* * * * *

Intermediate facility means any facility that stores hazardous secondary materials for more than 10 days, other than a hazardous secondary material generator or reclaimer of such material.

* * * * *

Land-based unit means an area where hazardous secondary materials are placed in or on the land before recycling. This definition does not include land-based production units.

* * * * *

Transfer facility means any transportation-related facility, including loading docks, parking areas, storage areas and other similar areas where shipments of hazardous waste or hazardous secondary materials are held during the normal course of transportation.

* * * * *

■ 3. Section 260.30 is amended by revising the section heading, the introductory text, paragraph (b), and adding paragraphs (d) and (e) to read as follows:

§ 260.30 Non-waste determinations and variances from classification as a solid waste.

In accordance with the standards and criteria in § 260.31 and § 260.34 and the procedures in § 260.33, the Administrator may determine on a case-by-case basis that the following recycled materials are not solid wastes:

* * * * *

(b) Materials that are reclaimed and then reused within the original production process in which they were generated;

* * * * *

(d) Hazardous secondary materials that are reclaimed in a continuous industrial process; and

(e) Hazardous secondary materials that are indistinguishable in all relevant aspects from a product or intermediate.

* * * * *

■ 4. Section 260.33 is amended by revising the section heading, the introductory text, paragraph (a) and adding paragraph (c) to read as follows:

§ 260.33 Procedures for variances from classification as a solid waste, for variances to be classified as a boiler, or for non-waste determinations.

The Administrator will use the following procedures in evaluating applications for variances from classification as a solid waste, applications to classify particular enclosed controlled flame combustion devices as boilers, or applications for non-waste determinations.

(a) The applicant must apply to the Administrator for the variance or non-waste determination. The application must address the relevant criteria contained in § 260.31, § 260.32, or § 260.34, as applicable.

* * * * *

(c) For non-waste determinations, in the event of a change in circumstances that affect how a hazardous secondary material meets the relevant criteria contained in § 260.34 upon which a non-waste determination has been based, the applicant must re-apply to the Administrator for a formal determination that the hazardous secondary material continues to meet the relevant criteria and therefore is not a solid waste.

■ 5. Section 260.34 is added to Subpart C to read as follows:

§ 260.34 Standards and criteria for non-waste determinations.

(a) An applicant may apply to the Administrator for a formal determination that a hazardous secondary material is not discarded and therefore not a solid waste. The determinations will be based on the criteria contained in paragraphs (b) or (c) of this section, as applicable. If an application is denied, the hazardous secondary material might still be eligible for a solid waste variance or exclusion (for example, one of the solid waste variances under § 260.31). Determinations may also be granted by the State if the State is either authorized for this provision or if the following conditions are met:

(1) The State determines the hazardous secondary material meets the criteria in paragraphs (b) or (c) of this section, as applicable;

(2) The State requests that EPA review its determination; and

(3) EPA approves the State determination.

(b) The Administrator may grant a non-waste determination for hazardous secondary material which is reclaimed in a continuous industrial process if the applicant demonstrates that the hazardous secondary material is a part of the production process and is not discarded. The determination will be based on whether the hazardous secondary material is legitimately recycled as specified in § 260.43 and on the following criteria:

(1) The extent that the management of the hazardous secondary material is part of the continuous primary production process and is not waste treatment;

(2) Whether the capacity of the production process would use the hazardous secondary material in a reasonable time frame and ensure that the hazardous secondary material will not be abandoned (for example, based on past practices, market factors, the nature of the hazardous secondary material, or any contractual arrangements);

(3) Whether the hazardous constituents in the hazardous secondary material are reclaimed rather than released to the air, water or land at significantly higher levels from either a statistical or from a health and environmental risk perspective than would otherwise be released by the production process; and

(4) Other relevant factors that demonstrate the hazardous secondary material is not discarded.

(c) The Administrator may grant a non-waste determination for hazardous secondary material which is indistinguishable in all relevant aspects from a product or intermediate if the applicant demonstrates that the hazardous secondary material is comparable to a product or intermediate and is not discarded. The determination will be based on whether the hazardous secondary material is legitimately

recycled as specified in § 260.43 and on the following criteria:

(1) Whether market participants treat the hazardous secondary material as a product or intermediate rather than a waste (for example, based on the current positive value of the hazardous secondary material, stability of demand, or any contractual arrangements);

(2) Whether the chemical and physical identity of the hazardous secondary material is comparable to commercial products or intermediates;

(3) Whether the capacity of the market would use the hazardous secondary material in a reasonable time frame and ensure that the hazardous secondary material will not be abandoned (for example, based on past practices, market factors, the nature of the hazardous secondary material, or any contractual arrangements);

(4) Whether the hazardous constituents in the hazardous secondary material are reclaimed rather than released to the air, water or land at significantly higher levels from either a statistical or from a health and environmental risk perspective than would otherwise be released by the production process; and

(5) Other relevant factors that demonstrate the hazardous secondary material is not discarded.

■ 6. Section 260.42 is added to Subpart C to read as follows:

§ 260.42 Notification requirement for hazardous secondary materials.

(a) Hazardous secondary material generators, tolling contractors, toll manufacturers, reclaimers, and intermediate facilities managing hazardous secondary materials which are excluded from regulation under § 261.2(a)(2)(ii), § 261.4(a)(23), (24), or (25) must send a notification prior to operating under the exclusion(s) and by March 1 of each even numbered year thereafter to the Regional Administrator using EPA Form 8700–12 that includes the following information:

(1) The name, address, and EPA ID number (if applicable) of the facility;

(2) The name and telephone number of a contact person;

(3) The NAICS code of the facility;

(4) The exclusion under which the hazardous secondary materials will be managed (e.g., § 261.2(a)(2)(ii), § 261.4(a)(23), (24), and/or (25));

(5) For reclaimers and intermediate facilities managing hazardous secondary materials in accordance with § 261.4(a)(24) or (25), whether the reclaimer or intermediate facility has financial assurance (not applicable for persons managing hazardous secondary materials generated and reclaimed under the control of the generator);

(6) When the facility expects to begin managing the hazardous secondary materials in accordance with the exclusion;

(7) A list of hazardous secondary materials that will be managed according to the exclusion (reported as the EPA hazardous waste numbers that would apply if the hazardous secondary materials were managed as hazardous wastes);

(8) For each hazardous secondary material, whether the hazardous secondary material, or any portion thereof, will be managed in a land-based unit;

(9) The quantity of each hazardous secondary material to be managed annually; and

(10) The certification (included in EPA Form 8700–12) signed and dated by an authorized representative of the facility.

(b) If a hazardous secondary material generator, tolling contractor, toll manufacturer, reclaimer or intermediate facility has submitted a notification, but then subsequently stops managing hazardous secondary materials in accordance with the exclusion(s), the facility must notify the Regional Administrator within thirty (30) days using EPA Form 8700–12. For purposes of this section, a facility has stopped managing hazardous secondary materials if the facility no longer generates, manages and/or reclaims hazardous secondary materials under the exclusion(s) and does not expect to manage any amount of hazardous secondary materials for at least one year.

■ 7. Section 260.43 is added to Subpart C to read as follows:

§ 260.43 Legitimate recycling of hazardous secondary materials regulated under § 260.34, § 261.2(a)(2)(ii), and § 261.4(a)(23), (24), or (25).

(a) Persons regulated under § 260.34 or claiming to be excluded from hazardous waste regulation under § 261.2(a)(2)(ii), § 261.4(a)(23), (24), or (25) because they are engaged in reclamation must be able to demonstrate that the recycling is legitimate. Hazardous secondary material that is not legitimately recycled is discarded material and is a solid waste. In determining if their recycling is legitimate, persons must address the requirements of § 260.43(b) and must consider the requirements of § 260.43(c) below.

(b) Legitimate recycling must involve a hazardous secondary material that provides a useful contribution to the recycling process or to a product or intermediate of the recycling process, and the recycling process must produce a valuable product or intermediate.

(1) The hazardous secondary material provides a useful contribution if it

(i) Contributes valuable ingredients to a product or intermediate; or

(ii) Replaces a catalyst or carrier in the recycling process; or

(iii) Is the source of a valuable constituent recovered in the recycling process; or

(iv) Is recovered or regenerated by the recycling process; or

(v) Is used as an effective substitute for a commercial product.

(2) The product or intermediate is valuable if it is

(i) Sold to a third party; or

(ii) Used by the recycler or the generator as an effective substitute for a commercial product or as an ingredient or intermediate in an industrial process.

(c) The following factors must be considered in making a determination as to the overall legitimacy of a specific recycling activity.

(1) The generator and the recycler should manage the hazardous secondary material as a valuable commodity. Where there is an analogous raw material, the hazardous secondary material should be managed, at a minimum, in a manner consistent with the management of the raw material. Where there is no analogous raw material, the hazardous secondary material should be contained. Hazardous secondary materials that are released to the environment and are not recovered immediately are discarded.

(2) The product of the recycling process does not

(i) Contain significant concentrations of any hazardous constituents found in Appendix VIII of part 261 that are not found in analogous products; or

(ii) Contain concentrations of any hazardous constituents found in Appendix VIII of part 261 at levels that are significantly elevated from those found in analogous products; or

(iii) Exhibit a hazardous characteristic (as defined in part 261 subpart C) that analogous products do not exhibit.

(3) In making a determination that a hazardous secondary material is legitimately recycled, persons must evaluate all factors and consider legitimacy as a whole. If, after careful evaluation of these other considerations, one or both of the factors are not met, then this fact may be an indication that the material is not legitimately recycled.

However, the factors in this paragraph do not have to be met for the recycling to be considered legitimate. In evaluating the extent to which these factors are met and in determining

whether a process that does not meet one or both of these factors is still legitimate, persons can consider the protectiveness of the storage methods, exposure from toxics in the product, the bioavailability of the toxics in the product, and other relevant considerations.

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

■ 8. The authority citation for part 261 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921, 6922, 6924(y), and 6938.

Subpart A—[Amended]

■ 9. Section 261.1 is amended by revising paragraph (c)(4) to read as follows:

§ 261.1 Purpose and scope.

* * * * *

(c) * * *

(4) A material is "reclaimed" if it is processed to recover a usable product, or if it is regenerated. Examples are recovery of lead values from spent batteries and regeneration of spent solvents. In addition, for purposes of §§ 261.2(a)(2)(ii), 261.4(a)(23), and 261.4(a)(24) smelting, melting and refining furnaces are considered to be solely engaged in metals reclamation if the metal recovery from the hazardous secondary materials meets the same requirements as those specified for metals recovery from hazardous waste found in § 266.100(d)(1)–(3) of this chapter, and if the residuals meet the requirements specified in § 266.112 of this chapter.

* * * * *

■ 10. Section 261.2 is amended by revising paragraph (a)(1), (a)(2), (c)(3) and Table 1 in paragraph (c)(4) to read as follows:

§ 261.2 Definition of solid waste.

* * * * *

(a)(1) A *solid waste* is any discarded material that is not excluded under § 261.4(a) or that is not excluded by a variance granted under §§ 260.30 and 260.31 or that is not excluded by a non-waste determination under §§ 260.30 and 260.34.

(2)(i) A *discarded material* is any material which is:

(A) Abandoned, as explained in paragraph (b) of this section; or

(B) Recycled, as explained in paragraph (c) of this section; or

(C) Considered inherently waste-like, as explained in paragraph (d) of this section; or

(D) A military munition identified as a solid waste in § 266.202.

(ii) A hazardous secondary material is not discarded if it is generated and reclaimed under the control of the generator as defined in § 260.10, it is not speculatively accumulated as defined in § 261.1(c)(8), it is handled only in non-land-based units and is contained in such units, it is generated and reclaimed within the United States and its territories, it is not otherwise subject to material-specific management conditions under § 261.4(a) when reclaimed, it is not a spent lead acid battery (see § 266.80 and § 273.2), it does not meet the listing description for K171 or K172 in § 261.32, and the reclamation of the material is legitimate, as specified under § 260.43. (See also the notification requirements of § 260.42). (For hazardous secondary materials managed in land-based units, see § 261.4(a)(23)).

* * * * *

(c) * * *

(3) Reclaimed. Materials noted with a "—" in column 3 of Table 1 are not solid wastes when reclaimed. Materials noted with an "*" in column 3 of Table 1 are solid wastes when reclaimed unless they meet the requirements of §§ 261.2(a)(2)(ii), or 261.4(a)(17), or 261.4(a)(23), or 261.4(a)(24) or 261.4(a)(25).

(4) * * *

TABLE 1

	Use constituting disposal (§ 261.2(c)(1))	Energy recovery/ fuel (§ 261.2(c)(2))	Reclamation (261.2(c)(3)), except as provided in §§ 261.2(a)(2)(ii), 261.4(a)(17), 261.4(a)(23), 261.4(a)(24), or 261.4(a)(25)	Speculative accumulation (§ 261.2(c)(4))
	1	2	3	4
Spent Materials	(*)	(*)	(*)	(*)
Sludges (listed in 40 CFR Part 261.31 or 261.32)	(*)	(*)	(*)	(*)
Sludges exhibiting a characteristic of hazardous waste	(*)	(*)	—	(*)
By-products (listed in 40 CFR 261.31 or 261.32)	(*)	(*)	(*)	(*)
By-products exhibiting a characteristic of hazardous waste	(*)	(*)	—	(*)
Commercial chemical products listed in 40 CFR 261.33	(*)	(*)	—	—
Scrap metal other than excluded scrap metal (see 261.1(c)(9))	(*)	(*)	(*)	(*)

Note: The terms "spent materials," "sludges," "by-products," and "scrap metal" and "processed scrap metal" are defined in § 261.1.

* * * * *

■ 11. Section 261.4 is amended by adding new paragraphs (a)(23), (24), and (25) to read as follows:

§ 261.4 Exclusions.

(a) * * *

(23) Hazardous secondary material generated and reclaimed within the United States or its territories and managed in land-based units as defined in § 260.10 of this chapter is not a solid waste provided that:

(i) The material is contained;

(ii) The material is a hazardous secondary material generated and reclaimed under the control of the generator, as defined in § 260.10;

(iii) The material is not speculatively accumulated, as defined in § 261.1(c)(8);

(iv) The material is not otherwise subject to material-specific management conditions under paragraph (a) of this section when reclaimed, it is not a spent lead acid battery (see § 266.80 and § 273.2 of this chapter), and it does not meet the listing description for K171 or K172 in § 261.32;

(v) The reclamation of the material is legitimate, as specified under § 260.43 of this chapter; and

(vi) In addition, persons claiming the exclusion under this paragraph (a)(23) must provide notification as required by § 260.42 of this chapter. (For hazardous secondary material managed in a non-land-based unit, see § 261.2(a)(2)(ii)).

(24) Hazardous secondary material that is generated and then transferred to another person for the purpose of reclamation is not a solid waste, provided that:

(i) The material is not speculatively accumulated, as defined in § 261.1(c)(8);

(ii) The material is not handled by any person or facility other than the hazardous secondary material generator, the transporter, an intermediate facility or a reclaimer, and, while in transport, is not stored for more than 10 days at a transfer facility, as defined in § 260.10 of this chapter, and is packaged according to applicable Department of Transportation regulations at 49 CFR Parts 173, 178, and 179 while in transport;

(iii) The material is not otherwise subject to material-specific management conditions under paragraph (a) of this section when reclaimed, it is not a spent lead-acid battery (see § 266.80 and § 273.2 of this chapter), and it does not meet the listing description for K171 or K172 in § 261.32;

(iv) The reclamation of the material is legitimate, as specified under § 260.43 of this chapter;

(v) The hazardous secondary material generator satisfies all of the following conditions:

(A) The material must be contained.

(B) Prior to arranging for transport of hazardous secondary materials to a reclamation facility (or facilities) where the management of the hazardous secondary materials is not addressed under a RCRA Part B permit or interim status standards, the hazardous secondary material generator must make reasonable efforts to ensure that each reclaimer intends to properly and legitimately reclaim the hazardous secondary material and not discard it, and that each reclaimer will manage the hazardous secondary material in a manner that is protective of human health and the environment. If the hazardous secondary material will be passing through an intermediate facility where the management of the hazardous secondary materials is not addressed under a RCRA Part B permit or interim status standards, the hazardous secondary material generator must make contractual arrangements with the intermediate facility to ensure that the hazardous secondary material is sent to the reclamation facility identified by the hazardous secondary material generator, and the hazardous secondary material generator must perform reasonable efforts to ensure that the intermediate facility will manage the hazardous secondary material in a manner that is protective of human health and the environment. Reasonable efforts must be repeated at a minimum of every three years for the hazardous secondary material generator to claim the exclusion and to send the hazardous secondary materials to each reclaimer and any intermediate facility. In making these reasonable efforts, the generator may use any credible evidence available, including information gathered by the hazardous secondary material generator, provided by the reclaimer or intermediate facility, and/or provided by a third party. The hazardous secondary material generator must affirmatively answer all of the following questions for each reclamation facility and any intermediate facility:

(1) Does the available information indicate that the reclamation process is legitimate pursuant to § 260.43 of this chapter? In answering this question, the hazardous secondary material generator can rely on their existing knowledge of the physical and chemical properties of the hazardous secondary material, as well as information from other sources (e.g., the reclamation facility, audit reports, etc.) about the reclamation process. (By responding to this question, the hazardous secondary material generator has also satisfied its requirement in § 260.43(a) of this chapter to be able to demonstrate that the recycling is legitimate).

(2) Does the publicly available information indicate that the reclamation facility and any intermediate facility that is used by the hazardous secondary material generator notified the appropriate authorities of hazardous secondary materials reclamation activities pursuant to § 260.42 of this chapter and have they notified the appropriate authorities that the financial assurance condition is satisfied per paragraph (a)(24)(vi)(F) of this section? In answering these questions, the hazardous secondary material generator can rely on the available information documenting the reclamation facility's and any intermediate facility's compliance with the notification requirements per § 260.42 of this chapter, including the requirement in § 260.42(a)(5) to notify EPA whether the reclaimer or intermediate facility has financial assurance.

(3) Does publicly available information indicate that the reclamation facility or any intermediate facility that is used by the hazardous secondary material generator has not had any formal enforcement actions taken against the facility in the previous three years for violations of the RCRA hazardous waste regulations and has not been classified as a significant non-complier with RCRA Subtitle C? In answering this question, the hazardous secondary material generator can rely on the publicly available information from EPA or the state. If the reclamation facility or any intermediate facility that is used by the hazardous secondary material generator has had a formal enforcement action taken against the facility in the previous three years for violations of the RCRA hazardous waste regulations and has been classified as a significant non-complier with RCRA Subtitle C, does the hazardous secondary material generator have credible evidence that the facilities will manage the hazardous secondary materials properly? In answering this question, the hazardous secondary material generator can obtain additional information from EPA, the state, or the facility itself that the facility has addressed the violations, taken remedial steps to address the violations and prevent future violations, or that the violations are not relevant to the proper management of the hazardous secondary materials.

(4) Does the available information indicate that the reclamation facility and any intermediate facility that is used by the hazardous secondary material generator have the equipment and trained personnel to safely recycle the hazardous secondary material? In answering this question, the generator may rely on a description by the reclamation facility or by an independent third party of the equipment and trained personnel to be used to recycle the generator's hazardous secondary material.

(5) If residuals are generated from the reclamation of the excluded hazardous secondary materials, does the reclamation facility have the permits required (if any) to manage the residuals? If not, does the reclamation facility have a contract with an appropriately permitted facility to dispose of the residuals? If not, does the hazardous secondary material generator have credible evidence that the residuals will be managed in a manner that is protective of human health and the environment? In answering these questions, the hazardous secondary material generator can rely on publicly available information from EPA or the

state, or information provided by the facility itself.

(C) The hazardous secondary material generator must maintain for a minimum of three years documentation and certification that reasonable efforts were made for each reclamation facility and, if applicable, intermediate facility where the management of the hazardous secondary materials is not addressed under a RCRA Part B permit or interim status standards prior to transferring hazardous secondary material. Documentation and certification must be made available upon request by a regulatory authority within 72 hours, or within a longer period of time as specified by the regulatory authority. The certification statement must:

(1) Include the printed name and official title of an authorized representative of the hazardous secondary material generator company, the authorized representative's signature, and the date signed;

(2) Incorporate the following language: "I hereby certify in good faith and to the best of my knowledge that, prior to arranging for transport of excluded hazardous secondary materials to [insert name(s) of reclamation facility and any intermediate facility], reasonable efforts were made in accordance with § 261.4(a)(24)(v)(B) to ensure that the hazardous secondary materials would be recycled legitimately, and otherwise managed in a manner that is protective of human health and the environment, and that such efforts were based on current and accurate information."

(D) The hazardous secondary material generator must maintain at the generating facility for no less than three (3) years records of all off-site shipments of hazardous secondary materials. For each shipment, these records must, at a minimum, contain the following information:

(1) Name of the transporter and date of the shipment;

(2) Name and address of each reclaimer and, if applicable, the name and address of each intermediate facility to which the hazardous secondary material was sent;

(3) The type and quantity of hazardous secondary material in the shipment.

(E) The hazardous secondary material generator must maintain at the generating facility for no less than three (3) years confirmations of receipt from each reclaimer and, if applicable, each intermediate facility for all off-site shipments of hazardous secondary materials. Confirmations of receipt must include the name and address of the reclaimer (or intermediate facility), the type and quantity of the hazardous secondary materials received and the date which the hazardous secondary materials were received. This requirement may be satisfied by routine business records (e.g., financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt); and

(vi) Reclaimers of hazardous secondary material excluded from regulation under this exclusion and intermediate facilities as defined in § 260.10 of this chapter satisfy all of the following conditions:

(A) The reclaimer and intermediate facility must maintain at its facility for no less than three (3) years records of all shipments of hazardous secondary material that were received at the facility and, if applicable, for all shipments of hazardous secondary materials that were received and subsequently sent off-site from the facility for further reclamation. For each shipment, these records must at a minimum contain the following information:

(1) Name of the transporter and date of the shipment;

(2) Name and address of the hazardous secondary material generator and, if applicable, the name and address of the reclaimer or intermediate facility which the hazardous secondary materials were received from;

(3) The type and quantity of hazardous secondary material in the shipment; and

(4) For hazardous secondary materials that, after being received by the reclaimer or intermediate facility, were subsequently transferred off-site for further reclamation, the name and address of the (subsequent) reclaimer and, if applicable, the name and address of each intermediate facility to which the hazardous secondary material was sent.

(B) The intermediate facility must send the hazardous secondary material to the reclaimer(s) designated by the hazardous secondary materials generator.

(C) The reclaimer and intermediate facility must send to the hazardous secondary material generator confirmations of receipt for all off-site shipments of hazardous secondary materials. Confirmations of receipt must include the name and address of the reclaimer (or intermediate facility), the type and quantity of the hazardous secondary materials received and the date which the hazardous secondary materials were received. This requirement may be satisfied by routine business records (e.g., financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt).

(D) The reclaimer and intermediate facility must manage the hazardous secondary material in a manner that is at least as protective as that employed for analogous raw material and must be contained. An "analogous raw material" is a raw material for which a hazardous secondary material is a substitute and serves the same function and has similar physical and chemical properties as the hazardous secondary material.

(E) Any residuals that are generated from reclamation processes will be managed in a manner that is protective of human health and the environment. If any residuals exhibit a hazardous characteristic according to subpart C of 40 CFR part 261, or if they themselves are specifically listed in subpart D of 40 CFR part 261, such residuals are hazardous wastes and must be managed in accordance with the applicable requirements of 40 CFR parts 260 through 272.

(F) The reclaimer and intermediate facility has financial assurance as required under subpart H of 40 CFR part 261.

(vii) In addition, all persons claiming the exclusion under this paragraph (a)(24) of this section must provide notification as required under § 260.42 of this chapter.

(25) Hazardous secondary material that is exported from the United States and reclaimed at a reclamation facility located in a foreign country is not a solid waste, provided that the hazardous secondary material generator complies with the applicable requirements of paragraph (a)(24)(i)–(v) of this section (excepting paragraph (a)(v)(B)(*2*) of this section for foreign reclaimers and foreign intermediate facilities), and that the hazardous secondary material generator also complies with the following requirements:

(i) Notify EPA of an intended export before the hazardous secondary material is scheduled to leave the United States. A complete notification must be submitted at least sixty (60) days before the initial shipment is intended to be shipped off-site. This notification may cover export activities extending over a twelve (12) month or lesser period. The notification must be in writing, signed by the hazardous secondary material generator, and include the following information:

(A) Name, mailing address, telephone number and EPA ID number (if applicable) of the hazardous secondary material generator;

(B) A description of the hazardous secondary material and the EPA hazardous waste number that would

apply if the hazardous secondary material was managed as hazardous waste and the U.S. DOT proper shipping name, hazard class and ID number (UN/NA) for each hazardous secondary material as identified in 49 CFR parts 171 through 177;

(C) The estimated frequency or rate at which the hazardous secondary material is to be exported and the period of time over which the hazardous secondary material is to be exported;

(D) The estimated total quantity of hazardous secondary material;

(E) All points of entry to and departure from each foreign country through which the hazardous secondary material will pass;

(F) A description of the means by which each shipment of the hazardous secondary material will be transported (e.g., mode of transportation vehicle (air, highway, rail, water, etc.), type(s) of container (drums, boxes, tanks, etc.));

(G) A description of the manner in which the hazardous secondary material will be reclaimed in the receiving country;

(H) The name and address of the reclaimer, any intermediate facility and any alternate reclaimer and intermediate facilities; and

(I) The name of any transit countries through which the hazardous secondary material will be sent and a description of the approximate length of time it will remain in such countries and the nature of its handling while there (for purposes of this section, the terms "Acknowledgement of Consent", "receiving country" and "transit country" are used as defined in 40 CFR 262.51 with the exception that the terms in this section refer to hazardous secondary materials, rather than hazardous waste):

(ii) Notifications submitted by mail should be sent to the following mailing address: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division, (Mail Code 2254A), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460. Hand-delivered notifications should be delivered to: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division, Environmental Protection Agency, Ariel Rios Bldg., Room 6144, 12th St. and Pennsylvania Ave., NW., Washington, DC 20004. In both cases, the following shall be prominently displayed on the front of the envelope: "Attention: Notification of Intent to Export."

(iii) Except for changes to the telephone number in paragraph (a)(25)(i)(A) of this section and decreases in the quantity of hazardous secondary material indicated pursuant to paragraph (a)(25)(i)(D) of this section, when the conditions specified on the original notification change (including any exceedance of the estimate of the quantity of hazardous secondary material specified in the original notification), the hazardous secondary material generator must provide EPA with a written renotification of the change. The shipment cannot take place until consent of the receiving country to the changes (except for changes to paragraph (a)(25)(i)(I) of this section and in the ports of entry to and departure from transit countries pursuant to paragraphs (a)(25)(i)(E) of this section) has been obtained and the hazardous secondary material generator receives from EPA an Acknowledgment of Consent reflecting the receiving country's consent to the changes.

(iv) Upon request by EPA, the hazardous secondary material generator shall furnish to EPA any additional information which a receiving country requests in order to respond to a notification.

(v) EPA will provide a complete notification to the receiving country and any transit countries. A notification is complete when EPA receives a notification which EPA determines satisfies the requirements of paragraph (a)(25)(i) of this section. Where a claim of confidentiality is asserted with respect to any notification information required by paragraph (a)(25)(i) of this section, EPA may find the notification not complete until any such claim is resolved in accordance with 40 CFR 260.2.

(vi) The export of hazardous secondary material under this paragraph (a)(25) is prohibited unless the receiving country consents to the intended export. When the receiving country consents in writing to the receipt of the hazardous secondary material, EPA will send an Acknowledgment of Consent to the hazardous secondary material generator. Where the receiving country objects to receipt of the hazardous secondary material or withdraws a prior consent, EPA will notify the hazardous secondary material generator in writing. EPA will also notify the hazardous secondary material generator of any responses from transit countries.

(vii) For exports to OECD Member countries, the receiving country may respond to the notification using tacit consent. If no objection has been lodged by any receiving country or transit countries to a notification provided pursuant to paragraph (a)(25)(i) of this section within thirty (30) days after the date of issuance of the acknowledgement of receipt of notification by the competent authority of the receiving country, the transboundary movement may commence. In such cases, EPA will send an Acknowledgment of Consent to inform the hazardous secondary material generator that the receiving country and any relevant transit countries have not objected to the shipment, and are thus presumed to have consented tacitly. Tacit consent expires one (1) calendar year after the close of the thirty (30) day period; renotification and renewal of all consents is required for exports after that date.

(viii) A copy of the Acknowledgment of Consent must accompany the shipment. The shipment must conform to the terms of the Acknowledgment of Consent.

(ix) If a shipment cannot be delivered for any reason to the reclaimer, intermediate facility or the alternate reclaimer or alternate intermediate facility, the hazardous secondary material generator must re-notify EPA of a change in the conditions of the original notification to allow shipment to a new reclaimer in accordance with paragraph (iii) of this section and obtain another Acknowledgment of Consent.

(x) Hazardous secondary material generators must keep a copy of each notification of intent to export and each Acknowledgment of Consent for a period of three years following receipt of the Acknowledgment of Consent.

(xi) Hazardous secondary material generators must file with the Administrator no later than March 1 of each year, a report summarizing the types, quantities, frequency and ultimate destination of all hazardous secondary materials exported during the previous calendar year. Annual reports submitted by mail should be sent to the following address: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (Mail Code 2254A), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460. Hand-delivered reports should be delivered to: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division, Environmental Protection Agency, Ariel Rios Bldg., Room 6144, 12th St. and Pennsylvania Ave., NW., Washington, DC 20004. Such reports must include the following information:

(A) Name, mailing and site address, and EPA ID number (if applicable) of

the hazardous secondary material generator;

(B) The calendar year covered by the report;

(C) The name and site address of each reclaimer and intermediate facility;

(D) By reclaimer and intermediate facility, for each hazardous secondary material exported, a description of the hazardous secondary material and the EPA hazardous waste number that would apply if the hazardous secondary material was managed as hazardous waste, DOT hazard class, the name and U.S. EPA ID number (where applicable) for each transporter used, the total amount of hazardous secondary material shipped and the number of shipments pursuant to each notification;

(E) A certification signed by the hazardous secondary material generator which states: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."

(xii) All persons claiming an exclusion under this paragraph (a)(25) must provide notification as required by § 260.42 of this chapter.

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Subparts F–G [Reserved]

■ 12. In part 261, Subpart F and Subpart G are added and reserved.

■ 13. Part 261 is amended by adding new Subpart H to read as follows:

Subpart H—Financial Requirements for Management of Excluded Hazardous Secondary Materials

Sec.

261.140 Applicability.
261.141 Definitions of terms as used in this subpart.
261.142 Cost estimate.
261.143 Financial assurance condition.
261.144–261.146 [reserved].
261.147 Liability requirements.
261.148 Incapacity of owners or operators, guarantors, or financial institutions.
261.149 Use of State-required mechanisms.
261.150 State assumption of responsibility.
261.151 Wording of the instruments.

Subpart H—Financial Requirements for Management of Excluded Hazardous Secondary Materials

§ 261.140 Applicability.

(a) The requirements of this subpart apply to owners or operators of reclamation and intermediate facilities managing hazardous secondary materials excluded under 40 CFR § 261.4(a)(24), except as provided otherwise in this section.

(b) States and the Federal government are exempt from the financial assurance requirements of this subpart.

§ 261.141 Definitions of terms as used in this subpart.

The terms defined in § 265.141(d), (f), (g), and (h) of this chapter have the same meaning in this subpart as they do in § 265.141 of this chapter.

§ 261.142 Cost estimate.

(a) The owner or operator must have a detailed written estimate, in current dollars, of the cost of disposing of any hazardous secondary material as listed or characteristic hazardous waste, and the potential cost of closing the facility as a treatment, storage, and disposal facility.

(1) The estimate must equal the cost of conducting the activities described in paragraph (a) of this section at the point when the extent and manner of the facility's operation would make these activities the most expensive; and

(2) The cost estimate must be based on the costs to the owner or operator of hiring a third party to conduct these activities. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation in § 265.141(d) of this chapter.) The owner or operator may use costs for on-site disposal in accordance with applicable requirements if he can demonstrate that on-site disposal capacity will exist at all times over the life of the facility.

(3) The cost estimate may not incorporate any salvage value that may be realized with the sale of hazardous secondary materials, or hazardous or non-hazardous wastes if applicable under § 265.5113(d) of this chapter, facility structures or equipment, land, or other assets associated with the facility.

(4) The owner or operator may not incorporate a zero cost for hazardous secondary materials, or hazardous or non-hazardous wastes if applicable under § 265.5113(d) of this chapter that might have economic value.

(b) During the active life of the facility, the owner or operator must adjust the cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with § 261.143. For owners and operators using the financial test or corporate guarantee, the cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the Regional Administrator as specified in § 261.143(e)(3). The adjustment may be made by recalculating the cost estimate in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business, as specified in paragraphs (b)(1) and (2) of this section. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(1) The first adjustment is made by multiplying the cost estimate by the inflation factor. The result is the adjusted cost estimate.

(2) Subsequent adjustments are made by multiplying the latest adjusted cost estimate by the latest inflation factor.

(c) During the active life of the facility, the owner or operator must revise the cost estimate no later than 30 days after a change in a facility's operating plan or design that would increase the costs of conducting the activities described in paragraph (a) or no later than 60 days after an unexpected event which increases the cost of conducting the activities described in paragraph (a) of this section. The revised cost estimate must be adjusted for inflation as specified in paragraph (b) of this section.

(d) The owner or operator must keep the following at the facility during the operating life of the facility: The latest cost estimate prepared in accordance with paragraphs (a) and (c) and, when this estimate has been adjusted in accordance with paragraph (b), the latest adjusted cost estimate.

§ 261.143 Financial assurance condition.

Per § 261.4(a)(24)(vi)(F) of this chapter, an owner or operator of a reclamation or intermediate facility must have financial assurance as a condition of the exclusion as required under § 261.4(a)(24) of this chapter. He must choose from the options as specified in paragraphs (a) through (e) of this section.

(a) *Trust fund.* (1) An owner or operator may satisfy the requirements of this section by establishing a trust fund which conforms to the requirements of this paragraph and submitting an originally signed duplicate of the trust agreement to the Regional Administrator. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(2) The wording of the trust agreement must be identical to the wording specified in § 261.151(a)(1), and the trust agreement must be accompanied by a formal certification of acknowledgment (for example, see § 261.151(a)(2)). Schedule A of the trust agreement must be updated within 60 days after a change in the amount of the current cost estimate covered by the agreement.

(3) The trust fund must be funded for the full amount of the current cost estimate before it may be relied upon to satisfy the requirements of this section.

(4) Whenever the current cost estimate changes, the owner or operator must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current cost estimate, or obtain other financial assurance as specified in this section to cover the difference.

(5) If the value of the trust fund is greater than the total amount of the current cost estimate, the owner or operator may submit a written request to the Regional Administrator for release of the amount in excess of the current cost estimate.

(6) If an owner or operator substitutes other financial assurance as specified in this section for all or part of the trust fund, he may submit a written request to the Regional Administrator for release of the amount in excess of the current cost estimate covered by the trust fund.

(7) Within 60 days after receiving a request from the owner or operator for release of funds as specified in paragraph (a) (5) or (6) of this section, the Regional Administrator will instruct the trustee to release to the owner or operator such funds as the Regional Administrator specifies in writing. If the owner or operator begins final closure under subpart G of 40 CFR part 264 or 265, an owner or operator may request reimbursements for partial or final closure expenditures by submitting itemized bills to the Regional Administrator. The owner or operator may request reimbursements for partial closure only if sufficient funds are remaining in the trust fund to cover the maximum costs of closing the facility over its remaining operating life. No later than 60 days after receiving bills for partial or final closure activities, the Regional Administrator will instruct the trustee to make reimbursements in those amounts as the Regional Administrator specifies in writing, if the Regional Administrator determines that the partial or final closure expenditures are in accordance with the approved closure plan, or otherwise justified. If the Regional Administrator has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the value of the trust fund, he may withhold reimbursements of such amounts as he deems prudent until he determines, in accordance with § 265.143(i) that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. If the Regional Administrator does not instruct the trustee to make such reimbursements, he will provide to the owner or operator a detailed written statement of reasons.

(8) The Regional Administrator will agree to termination of the trust when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with paragraph (i) of this section.

(b) *Surety bond guaranteeing payment into a trust fund.* (1) An owner or operator may satisfy the requirements of this section by obtaining a surety bond which conforms to the requirements of this paragraph and submitting the bond to the Regional Administrator. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond must be identical to the wording specified in § 261.151(b).

(3) The owner or operator who uses a surety bond to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust fund must meet the requirements specified in paragraph (a) of this section, except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Regional Administrator with the surety bond; and

(ii) Until the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in paragraph (a) of this section;

(B) Updating of Schedule A of the trust agreement (see § 261.151(a)) to show current cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond must guarantee that the owner or operator will:

(i) Fund the standby trust fund in an amount equal to the penal sum of the bond before loss of the exclusion under § 261.4(a)(24) of this chapter or

(ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin closure issued by the Regional Administrator becomes final, or within 15 days after an order to begin closure is issued by a U.S. district court or other court of competent jurisdiction; or

(iii) Provide alternate financial assurance as specified in this section, and obtain the Regional Administrator's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(6) The penal sum of the bond must be in an amount at least equal to the current cost estimate, except as provided in paragraph (f) of this section.

(7) Whenever the current cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current cost estimate decreases, the penal sum may be reduced to the amount of the current cost estimate following written approval by the Regional Administrator.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Regional Administrator. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Regional Administrator, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the Regional Administrator has given prior written consent based on his receipt of evidence of alternate

financial assurance as specified in this section.

(c) *Letter of credit.* (1) An owner or operator may satisfy the requirements of this section by obtaining an irrevocable standby letter of credit which conforms to the requirements of this paragraph and submitting the letter to the Regional Administrator. The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency.

(2) The wording of the letter of credit must be identical to the wording specified in § 261.151(c).

(3) An owner or operator who uses a letter of credit to satisfy the requirements of this section must also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Regional Administrator will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Regional Administrator. This standby trust fund must meet the requirements of the trust fund specified in paragraph (a) of this section, except that:

(i) An originally signed duplicate of the trust agreement must be submitted to the Regional Administrator with the letter of credit; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of this section, the following are not required by these regulations:

(A) Payments into the trust fund as specified in paragraph (a) of this section;

(B) Updating of Schedule A of the trust agreement (see § 261.151(a)) to show current cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The letter of credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: The EPA Identification Number (if any issued), name, and address of the facility, and the amount of funds assured for the facility by the letter of credit.

(5) The letter of credit must be irrevocable and issued for a period of at least 1 year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least 1 year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Regional Administrator by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Regional Administrator have received the notice, as evidenced by the return receipts.

(6) The letter of credit must be issued in an amount at least equal to the current cost estimate, except as provided in paragraph (f) of this section.

(7) Whenever the current cost estimate increases to an amount greater than the amount of the credit, the owner or operator, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current cost estimate decreases, the amount of the credit may be reduced to the amount of the current cost estimate following written approval by the Regional Administrator.

(8) Following a determination by the Regional Administrator that the hazardous secondary materials do not meet the conditions of the exclusion under § 261.4(a)(24), the Regional Administrator may draw on the letter of credit.

(9) If the owner or operator does not establish alternate financial assurance as specified in this section and obtain written approval of such alternate assurance from the Regional Administrator within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Regional Administrator will draw on the letter of credit. The Regional Administrator may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Regional Administrator will draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in this section and obtain written approval of such assurance from the Regional Administrator.

(10) The Regional Administrator will return the letter of credit to the issuing institution for termination when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with paragraph (i) of this section.

(d) *Insurance.* (1) An owner or operator may satisfy the requirements of this section by obtaining insurance which conforms to the requirements of this paragraph and submitting a certificate of such insurance to the Regional Administrator At a minimum, the insurer must be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) The wording of the certificate of insurance must be identical to the wording specified in § 261.151(d).

(3) The insurance policy must be issued for a face amount at least equal to the current cost estimate, except as provided in paragraph (f) of this section. The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

(4) The insurance policy must guarantee that funds will be available whenever needed to pay the cost of removal of all hazardous secondary materials from the unit, to pay the cost of decontamination of the unit, to pay the costs of the performance of activities required under subpart G of 40 CFR parts 264 or 265, as applicable, for the facilities covered by this policy. The policy must also guarantee that once funds are needed, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Regional Administrator, to such party or parties as the Regional Administrator specifies.

(5) After beginning partial or final closure under 40 CFR parts 264 or 265, as applicable, an owner or operator or any other authorized person may request reimbursements for closure expenditures by submitting itemized bills to the Regional Administrator. The owner or operator may request reimbursements only if the remaining value of the policy is sufficient to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for closure activities, the Regional Administrator will instruct the insurer to make reimbursements in such amounts as the Regional Administrator specifies in writing if the Regional Administrator determines that the expenditures are in accordance with the approved plan or otherwise justified. If the Regional Administrator has reason to believe that the maximum cost over the remaining life of the facility will be significantly greater than the face

amount of the policy, he may withhold reimbursement of such amounts as he deems prudent until he determines, in accordance with paragraph (h) of this section, that the owner or operator is no longer required to maintain financial assurance for the particular facility. If the Regional Administrator does not instruct the insurer to make such reimbursements, he will provide to the owner or operator a detailed written statement of reasons.

(6) The owner or operator must maintain the policy in full force and effect until the Regional Administrator consents to termination of the policy by the owner or operator as specified in paragraph (i)(10) of this section. Failure to pay the premium, without substitution of alternate financial assurance as specified in this section, will constitute a significant violation of these regulations warranting such remedy as the Regional Administrator deems necessary. Such violation will be deemed to begin upon receipt by the Regional Administrator of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(7) Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

(8) The policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Regional Administrator. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Regional Administrator and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration:

(i) The Regional Administrator deems the facility abandoned; or

(ii) Conditional exclusion or interim status is lost, terminated, or revoked; or

(iii) Closure is ordered by the Regional Administrator or a U.S. district court or other court of competent jurisdiction; or

(iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or

(v) The premium due is paid.

(9) Whenever the current cost estimate increases to an amount greater than the face amount of the policy, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current cost estimate and submit evidence of such increase to the Regional Administrator, or obtain other financial assurance as specified in this section to cover the increase. Whenever the current cost estimate decreases, the face amount may be reduced to the amount of the current cost estimate following written approval by the Regional Administrator.

(10) The Regional Administrator will give written consent to the owner or operator that he may terminate the insurance policy when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with paragraph (i) of this section.

(e) *Financial test and corporate guarantee.* (1) An owner or operator may satisfy the requirements of this section by demonstrating that he passes a financial test as specified in this paragraph. To pass this test the owner or operator must meet the criteria of either paragraph (e)(1) (i) or (ii) of this section:

(i) The owner or operator must have:

(A) Two of the following three ratios: A ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(B) Net working capital and tangible net worth each at least six times the sum of the current cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current cost estimates and the current plugging and abandonment cost estimates.

(ii) The owner or operator must have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) Tangible net worth at least six times the sum of the current cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current cost estimates and the current plugging and abandonment cost estimates.

(2) The phrase "current cost estimates" as used in paragraph (e)(1) of this section refers to the cost estimates required to be shown in paragraphs 1–4 of the letter from the owner's or operator's chief financial officer (§ 261.151(e)). The phrase "current plugging and abandonment cost estimates" as used in paragraph (e)(1) of this section refers to the cost estimates required to be shown in paragraphs 1–4 of the letter from the owner's or operator's chief financial officer (§ 144.70(f) of this chapter).

(3) To demonstrate that he meets this test, the owner or operator must submit the following items to the Regional Administrator:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in § 261.151(e); and

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) If the chief financial officer's letter providing evidence of financial assurance includes financial data showing that the owner or operator satisfies paragraph (e)(1)(i) of this section that are different from the data in the audited financial statements referred to in paragraph (e)(3)(ii)of this section or any other audited financial statement or data filed with the SEC, then a special report from the owner's or operator's independent certified public accountant to the owner or operator is required. The special report shall be based upon an agreed upon procedures engagement in accordance with professional auditing standards and shall describe the procedures performed in comparing the data in the chief financial officer's letter derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements, the findings of the comparison, and the reasons for any differences.

(4) The owner or operator may obtain an extension of the time allowed for

submission of the documents specified in paragraph (e)(3) of this section if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year-end financial statements for that fiscal year will be audited by an independent certified public accountant. The extension will end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the extension, the owner's or operator's chief financial officer must send, by the effective date of these regulations, a letter to the Regional Administrator of each Region in which the owner's or operator's facilities to be covered by the financial test are located. This letter from the chief financial officer must:

(i) Request the extension;

(ii) Certify that he has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) Specify for each facility to be covered by the test the EPA Identification Number (if any issued), name, address, and current cost estimates to be covered by the test;

(iv) Specify the date ending the owner's or operator's last complete fiscal year before the effective date of these regulations in this subpart;

(v) Specify the date, no later than 90 days after the end of such fiscal year, when he will submit the documents specified in paragraph (e)(3) of this section; and

(vi) Certify that the year-end financial statements of the owner or operator for such fiscal year will be audited by an independent certified public accountant.

(5) After the initial submission of items specified in paragraph (e)(3) of this section, the owner or operator must send updated information to the Regional Administrator within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in paragraph (e)(3) of this section.

(6) If the owner or operator no longer meets the requirements of paragraph (e)(1) of this section, he must send notice to the Regional Administrator of intent to establish alternate financial assurance as specified in this section. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator must provide the alternate financial assurance within 120 days after the end of such fiscal year.

(7) The Regional Administrator may, based on a reasonable belief that the owner or operator may no longer meet the requirements of paragraph (e)(1) of this section, require reports of financial condition at any time from the owner or operator in addition to those specified in paragraph (e)(3) of this section. If the Regional Administrator finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of paragraph (e)(1) of this section, the owner or operator must provide alternate financial assurance as specified in this section within 30 days after notification of such a finding.

(8) The Regional Administrator may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see paragraph (e)(3)(ii) of this section). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Regional Administrator will evaluate other qualifications on an individual basis. The owner or operator must provide alternate financial assurance as specified in this section within 30 days after notification of the disallowance.

(9) The owner or operator is no longer required to submit the items specified in paragraph (e)(3) of this section when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Regional Administrator releases the owner or operator from the requirements of this section in accordance with paragraph (i) of this section.

(10) An owner or operator may meet the requirements of this section by obtaining a written guarantee. The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements for owners or operators in paragraphs (e)(1) through (8) of this section and must comply with the terms of the guarantee. The wording of the guarantee must be identical to the wording specified in § 261.151(g)(1). A certified copy of the guarantee must accompany the items sent to the Regional Administrator as specified in paragraph (e)(3) of this section. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee. The terms of the guarantee must provide that:

(i) Following a determination by the Regional Administrator that the hazardous secondary materials at the owner or operator's facility covered by this guarantee do not meet the conditions of the exclusion under § 261.4(a)(24) of this chapter, the guarantor will dispose of any hazardous secondary material as hazardous waste and close the facility in accordance with closure requirements found in parts 264 or 265 of this chapter, as applicable, or establish a trust fund as specified in paragraph (a) of this section in the name of the owner or operator in the amount of the current cost estimate.

(ii) The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Regional Administrator. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Regional Administrator, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in this section and obtain the written approval of such alternate assurance from the Regional Administrator within 90 days after receipt by both the owner or operator and the Regional Administrator of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternate financial assurance in the name of the owner or operator.

(f) *Use of multiple financial mechanisms.* An owner or operator may satisfy the requirements of this section by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds, letters of credit, and insurance. The mechanisms must be as specified in paragraphs (a) through (d) of this section, respectively, of this section, except that it is the combination of mechanisms, rather than the single mechanism, which must provide financial assurance for an amount at least equal to the current cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Regional

Administrator may use any or all of the mechanisms to provide for the facility.

(g) *Use of a financial mechanism for multiple facilities.* An owner or operator may use a financial assurance mechanism specified in this section to meet the requirements of this section for more than one facility. Evidence of financial assurance submitted to the Regional Administrator must include a list showing, for each facility, the EPA Identification Number (if any issued), name, address, and the amount of funds assured by the mechanism. If the facilities covered by the mechanism are in more than one Region, identical evidence of financial assurance must be submitted to and maintained with the Regional Administrators of all such Regions. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for any of the facilities covered by the mechanism, the Regional Administrator may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(h) *Removal and Decontamination Plan for Release* (1) An owner or operator of a reclamation facility or an intermediate facility who wishes to be released from his financial assurance obligations under § 261.4(a)(24)(vi)(F) of this chapter must submit a plan for removing all hazardous secondary material residues to the Regional Administrator at least 180 days prior to the date on which he expects to cease to operate under the exclusion.

(2) The plan must include, at least:

(A) For each hazardous secondary materials storage unit subject to financial assurance requirements under § 261.4(a)(24)(vi)(F), a description of how all excluded hazardous secondary materials will be recycled or sent for recycling, and how all residues, contaminated containment systems (liners, etc), contaminated soils, subsoils, structures, and equipment will be removed or decontaminated as necessary to protect human health and the environment, and

(B) A detailed description of the steps necessary to remove or decontaminate all hazardous secondary material residues and contaminated containment system components, equipment, structures, and soils including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination necessary to protect human health and the environment; and

(C) A detailed description of any other activities necessary to protect human health and the environment during this timeframe, including, but not limited to, leachate collection, run-on and run-off control, etc; and

(D) A schedule for conducting the activities described which, at a minimum, includes the total time required to remove all excluded hazardous secondary materials for recycling and decontaminate all units subject to financial assurance under § 261,4(a)(24)(vi)(F) and the time required for intervening activities which will allow tracking of the progress of decontamination.

(3) The Regional Administrator will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the plan and request modifications to the plan no later than 30 days from the date of the notice. He will also, in response to a request or at his discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning the plan. The Regional Administrator will give public notice of the hearing at least 30 days before it occurs. (Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the two notices may be combined.) The Regional Administrator will approve, modify, or disapprove the plan within 90 days of its receipt. If the Regional Administrator does not approve the plan, he shall provide the owner or operator with a detailed written statement of reasons for the refusal and the owner or operator must modify the plan or submit a new plan for approval within 30 days after receiving such written statement. The Regional Administrator will approve or modify this plan in writing within 60 days. If the Regional Administrator modifies the plan, this modified plan becomes the approved plan. The Regional Administrator must assure that the approved plan is consistent with paragraph (h) of this section. A copy of the modified plan with a detailed statement of reasons for the modifications must be mailed to the owner or operator.

(4) Within 60 days of completion of the activities described for each hazardous secondary materials management unit, the owner or operator must submit to the Regional Administrator, by registered mail, a certification that all hazardous secondary materials have been removed from the unit and the unit has been decontaminated in accordance with the specifications in the approved plan. The certification must be signed by the owner or operator and by a qualified Professional Engineer. Documentation supporting the Professional Engineer's certification must be furnished to the Regional Administrator, upon request, until he releases the owner or operator from the financial assurance requirements for § 261.4(a)(24)(vi)(F).

(i) *Release of the owner or operator from the requirements of this section.* Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that all hazardous secondary materials have been removed from the facility or a unit at the facility and the facility or a unit has been decontaminated in accordance with the approved plan per paragraph (h), the Regional Administrator will notify the owner or operator in writing that he is no longer required under § 261.4(a)(24)(vi)(F) to maintain financial assurance for that facility or a unit at the facility, unless the Regional Administrator has reason to believe that all hazardous secondary materials have not been removed from the facility or unit at a facility or that the facility or unit has not been decontaminated in accordance with the approved plan. The Regional Administrator shall provide the owner or operator a detailed written statement of any such reason to believe that all hazardous secondary materials have not been removed from the unit or that the unit has not been decontaminated in accordance with the approved plan.

§§ 261.144–261.146 [Reserved]

§ 261.147 Liability requirements.

(a) *Coverage for sudden accidental occurrences.* An owner or operator of a hazardous secondary material reclamation facility or an intermediate facility subject to financial assurance requirements under § 261.4(a)(24)(vi)(F) of this chapter, or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for sudden accidental occurrences in the amount of at least $1 million per occurrence with an annual aggregate of at least $2 million, exclusive of legal defense costs. This liability coverage may be demonstrated as specified in paragraphs (a) (1), (2), (3), (4), (5), or (6) of this section:

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this paragraph.

(i) Each insurance policy must be amended by attachment of the Hazardous Secondary Material Facility Liability Endorsement, or evidenced by a Certificate of Liability Insurance. The wording of the endorsement must be identical to the wording specified in § 261.151(h). The wording of the certificate of insurance must be identical to the wording specified in § 261.151(i). The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the Regional Administrator, or Regional Administrators if the facilities are located in more than one Region. If requested by a Regional Administrator, the owner or operator must provide a signed duplicate original of the insurance policy.

(ii) Each insurance policy must be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) An owner or operator may meet the requirements of this section by passing a financial test or using the guarantee for liability coverage as specified in paragraphs (f) and (g) of this section.

(3) An owner or operator may meet the requirements of this section by obtaining a letter of credit for liability coverage as specified in paragraph (h) of this section.

(4) An owner or operator may meet the requirements of this section by obtaining a surety bond for liability coverage as specified in paragraph (i) of this section.

(5) An owner or operator may meet the requirements of this section by obtaining a trust fund for liability coverage as specified in paragraph (j) of this section.

(6) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated must total at least the minimum amounts required by this section. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under this paragraph, the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify other assurance as "excess" coverage.

(7) An owner or operator shall notify the Regional Administrator in writing within 30 days whenever:

(i) A claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in paragraphs (a)(1) through (a)(6) of this section; or

(ii) A Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous secondary material reclamation facility or intermediate facility is entered between the owner or operator and third-party claimant for liability coverage under paragraphs (a)(1) through (a)(6) of this section; or

(iii) A final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous secondary material reclamation facility or intermediate facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under paragraphs (a)(1) through (a)(6) of this section.

(b) Coverage for nonsudden accidental occurrences. An owner or operator of a hazardous secondary material reclamation facility or intermediate facility with land-based units, as defined in § 260.10 of this chapter, which are used to manage hazardous secondary materials excluded under § 261.4(a)(24) of this chapter or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least $3 million per occurrence with an annual aggregate of at least $6 million, exclusive of legal defense costs. An owner or operator who must meet the requirements of this section may combine the required per-occurrence coverage levels for sudden and nonsudden accidental occurrences into a single per-occurrence level, and combine the required annual aggregate coverage levels for sudden and nonsudden accidental occurrences into a single annual aggregate level. Owners or operators who combine coverage levels for sudden and nonsudden accidental occurrences must maintain liability coverage in the amount of at least $4 million per occurrence and $8 million annual aggregate. This liability coverage may be demonstrated as specified in paragraph (b)(1), (2), (3), (4), (5), or (6) of this section:

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this paragraph.

(i) Each insurance policy must be amended by attachment of the Hazardous Secondary Material Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement must be identical to the wording specified in § 261.151(h). The wording of the certificate of insurance must be identical to the wording specified in § 261.151(i). The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the Regional Administrator, or Regional Administrators if the facilities are located in more than one Region. If requested by a Regional Administrator, the owner or operator must provide a signed duplicate original of the insurance policy.

(ii) Each insurance policy must be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) An owner or operator may meet the requirements of this section by passing a financial test or using the guarantee for liability coverage as specified in paragraphs (f) and (g) of this section.

(3) An owner or operator may meet the requirements of this section by obtaining a letter of credit for liability coverage as specified in paragraph (h) of this section.

(4) An owner or operator may meet the requirements of this section by obtaining a surety bond for liability coverage as specified in paragraph (i) of this section.

(5) An owner or operator may meet the requirements of this section by obtaining a trust fund for liability coverage as specified in paragraph (j) of this section.

(6) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a

financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated must total at least the minimum amounts required by this section. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under this paragraph, the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify other assurance as "excess" coverage.

(7) An owner or operator shall notify the Regional Administrator in writing within 30 days whenever:

(i) A claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in paragraphs (b)(1) through (b)(6) of this section; or

(ii) A Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous secondary material treatment and/or storage facility is entered between the owner or operator and third-party claimant for liability coverage under paragraphs (b)(1) through (b)(6) of this section; or

(iii) A final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous secondary material treatment and/or storage facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under paragraphs (b)(1) through (b)(6) of this section.

(c) *Request for variance.* If an owner or operator can demonstrate to the satisfaction of the Regional Administrator that the levels of financial responsibility required by paragraph (a) or (b) of this section are not consistent with the degree and duration of risk associated with treatment and/or storage at the facility or group of facilities, the owner or operator may obtain a variance from the Regional Administrator. The request for a variance must be submitted in writing to the Regional Administrator. If granted, the variance will take the form of an adjusted level of required liability coverage, such level to be based on the Regional Administrator's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The Regional Administrator may require an owner or operator who requests a variance to provide such technical and engineering information as is deemed necessary by the Regional Administrator to determine a level of financial responsibility other than that required by paragraph (a) or (b) of this section.

(d) *Adjustments by the Regional Administrator.* If the Regional Administrator determines that the levels of financial responsibility required by paragraph (a) or (b) of this section are not consistent with the degree and duration of risk associated with treatment and/or storage at the facility or group of facilities, the Regional Administrator may adjust the level of financial responsibility required under paragraph (a) or (b) of this section as may be necessary to protect human health and the environment. This adjusted level will be based on the Regional Administrator's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. In addition, if the Regional Administrator determines that there is a significant risk to human health and the environment from nonsudden accidental occurrences resulting from the operations of a facility that is not a surface impoundment, pile, or land treatment facility, he may require that an owner or operator of the facility comply with paragraph (b) of this section. An owner or operator must furnish to the Regional Administrator, within a reasonable time, any information which the Regional Administrator requests to determine whether cause exists for such adjustments of level or type of coverage.

(e) *Period of coverage.* Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that all hazardous secondary materials have been removed from the facility or a unit at the facility and the facility or a unit has been decontaminated in accordance with the approved plan per § 261.143(h), the Regional Administrator will notify the owner or operator in writing that he is no longer required under § 261.4(a)(24)(vi)(F) to maintain liability coverage for that facility or a unit at the facility, unless the Regional Administrator has reason to believe that that all hazardous secondary materials have not been removed from the facility or unit at a facility or that the facility or unit has not been decontaminated in accordance with the approved plan.

(f) *Financial test for liability coverage.* (1) An owner or operator may satisfy the requirements of this section by demonstrating that he passes a financial test as specified in this paragraph. To pass this test the owner or operator must meet the criteria of paragraph (f)(1) (i) or (ii) of this section:

(i) The owner or operator must have:

(A) Net working capital and tangible net worth each at least six times the amount of liability coverage to be demonstrated by this test; and

(B) Tangible net worth of at least $10 million; and

(C) Assets in the United States amounting to either:

(*1*) At least 90 percent of his total assets; or

(*2*) at least six times the amount of liability coverage to be demonstrated by this test.

(ii) The owner or operator must have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's, or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) Tangible net worth of at least $10 million; and

(C) Tangible net worth at least six times the amount of liability coverage to be demonstrated by this test; and

(D) Assets in the United States amounting to either:

(*1*) At least 90 percent of his total assets; or

(*2*) at least six times the amount of liability coverage to be demonstrated by this test.

(2) The phrase "amount of liability coverage" as used in paragraph (f)(1) of this section refers to the annual aggregate amounts for which coverage is required under paragraphs (a) and (b) of this section and the annual aggregate amounts for which coverage is required under paragraphs (a) and (b) of 40 CFR 264.147 and 265.147.

(3) To demonstrate that he meets this test, the owner or operator must submit the following three items to the Regional Administrator:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in § 261.151(f). If an owner or operator is using the financial test to demonstrate both assurance as specified by § 261.143(e), *and* liability coverage, he must submit the letter specified in § 261.151(f) to cover both forms of financial responsibility; a separate letter as specified in § 261.151(e) is not required.

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year.

(iii) If the chief financial officer's letter providing evidence of financial assurance includes financial data showing that the owner or operator satisfies paragraph (f)(1)(i) of this

section that are different from the data in the audited financial statements referred to in paragraph (f)(3)(ii) of this section or any other audited financial statement or data filed with the SEC, then a special report from the owner's or operator's independent certified public accountant to the owner or operator is required. The special report shall be based upon an agreed upon procedures engagement in accordance with professional auditing standards and shall describe the procedures performed in comparing the data in the chief financial officer's letter derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements, the findings of the comparison, and the reasons for any difference.

(4) The owner or operator may obtain a one-time extension of the time allowed for submission of the documents specified in paragraph (f)(3) of this section if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year-end financial statements for that fiscal year will be audited by an independent certified public accountant. The extension will end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the extension, the owner's or operator's chief financial officer must send, by the effective date of these regulations, a letter to the Regional Administrator of each Region in which the owner's or operator's facilities to be covered by the financial test are located. This letter from the chief financial officer must:

(i) Request the extension;

(ii) Certify that he has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) Specify for each facility to be covered by the test the EPA Identification Number, name, address, the amount of liability coverage and, when applicable, current closure and post-closure cost estimates to be covered by the test;

(iv) Specify the date ending the owner's or operator's last complete fiscal year before the effective date of these regulations;

(v) Specify the date, no later than 90 days after the end of such fiscal year, when he will submit the documents specified in paragraph (f)(3) of this section; and

(vi) Certify that the year-end financial statements of the owner or operator for such fiscal year will be audited by an independent certified public accountant.

(5) After the initial submission of items specified in paragraph (f)(3) of this section, the owner or operator must send updated information to the Regional Administrator within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in paragraph (f)(3) of this section.

(6) If the owner or operator no longer meets the requirements of paragraph (f)(1) of this section, he must obtain insurance, a letter of credit, a surety bond, a trust fund, or a guarantee for the entire amount of required liability coverage as specified in this section. Evidence of liability coverage must be submitted to the Regional Administrator within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the test requirements.

(7) The Regional Administrator may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see paragraph (f)(3)(ii) of this section). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Regional Administrator will evaluate other qualifications on an individual basis. The owner or operator must provide evidence of insurance for the entire amount of required liability coverage as specified in this section within 30 days after notification of disallowance.

(g) *Guarantee for liability coverage.* (1) Subject to paragraph (g)(2) of this section, an owner or operator may meet the requirements of this section by obtaining a written guarantee, hereinafter referred to as "guarantee." The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements for owners or operators in paragraphs (f)(1) through (f)(6) of this section. The wording of the guarantee must be identical to the wording specified in § 261.151(g)(2). A certified copy of the guarantee must accompany the items sent to the Regional Administrator as specified in paragraph (f)(3) of this section. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, this letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee.

(i) If the owner or operator fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by sudden or nonsudden accidental occurrences (or both as the case may be), arising from the operation of facilities covered by this corporate guarantee, or fails to pay an amount agreed to in settlement of claims arising from or alleged to arise from such injury or damage, the guarantor will do so up to the limits of coverage.

(ii) [Reserved]

(2)(i) In the case of corporations incorporated in the United States, a guarantee may be used to satisfy the requirements of this section only if the Attorneys General or Insurance Commissioners of:

(A) The State in which the guarantor is incorporated; and

(B) Each State in which a facility covered by the guarantee is located have submitted a written statement to EPA that a guarantee executed as described in this section and § 264.151(g)(2) is a legally valid and enforceable obligation in that State.

(ii) In the case of corporations incorporated outside the United States, a guarantee may be used to satisfy the requirements of this section only if:

(A) The non-U.S. corporation has identified a registered agent for service of process in each State in which a facility covered by the guarantee is located and in the State in which it has its principal place of business; and if

(B) The Attorney General or Insurance Commissioner of each State in which a facility covered by the guarantee is located and the State in which the guarantor corporation has its principal place of business, has submitted a written statement to EPA that a guarantee executed as described in this section and § 261.151(h)(2) is a legally valid and enforceable obligation in that State.

(h) *Letter of credit for liability coverage.* (1) An owner or operator may satisfy the requirements of this section by obtaining an irrevocable standby letter of credit that conforms to the requirements of this paragraph and submitting a copy of the letter of credit to the Regional Administrator.

(2) The financial institution issuing the letter of credit must be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a Federal or State agency.

(3) The wording of the letter of credit must be identical to the wording specified in § 261.151(j).

(4) An owner or operator who uses a letter of credit to satisfy the requirements of this section may also establish a standby trust fund. Under the terms of such a letter of credit, all amounts paid pursuant to a draft by the trustee of the standby trust will be deposited by the issuing institution into the standby trust in accordance with instructions from the trustee. The trustee of the standby trust fund must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(5) The wording of the standby trust fund must be identical to the wording specified in § 261.151(m).

(i) *Surety bond for liability coverage.* (1) An owner or operator may satisfy the requirements of this section by obtaining a surety bond that conforms to the requirements of this paragraph and submitting a copy of the bond to the Regional Administrator.

(2) The surety company issuing the bond must be among those listed as acceptable sureties on Federal bonds in the most recent Circular 570 of the U.S. Department of the Treasury.

(3) The wording of the surety bond must be identical to the wording specified in § 261.151(k) of this chapter.

(4) A surety bond may be used to satisfy the requirements of this section only if the Attorneys General or Insurance Commissioners of:

(i) The State in which the surety is incorporated; and

(ii) Each State in which a facility covered by the surety bond is located have submitted a written statement to EPA that a surety bond executed as described in this section and § 261.151(k) is a legally valid and enforceable obligation in that State.

(j) *Trust fund for liability coverage.* (1) An owner or operator may satisfy the requirements of this section by establishing a trust fund that conforms to the requirements of this paragraph and submitting an originally signed duplicate of the trust agreement to the Regional Administrator.

(2) The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(3) The trust fund for liability coverage must be funded for the full amount of the liability coverage to be provided by the trust fund before it may be relied upon to satisfy the requirements of this section. If at any time after the trust fund is created the amount of funds in the trust fund is reduced below the full amount of the liability coverage to be provided, the owner or operator, by the anniversary date of the establishment of the Fund, must either add sufficient funds to the trust fund to cause its value to equal the full amount of liability coverage to be provided, or obtain other financial assurance as specified in this section to cover the difference. For purposes of this paragraph, "the full amount of the liability coverage to be provided" means the amount of coverage for sudden and/or nonsudden occurrences required to be provided by the owner or operator by this section, less the amount of financial assurance for liability coverage that is being provided by other financial assurance mechanisms being used to demonstrate financial assurance by the owner or operator.

(4) The wording of the trust fund must be identical to the wording specified in § 261.151(l).

§ 261.148 Incapacity of owners or operators, guarantors, or financial institutions.

(a) An owner or operator must notify the Regional Administrator by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming the owner or operator as debtor, within 10 days after commencement of the proceeding. A guarantor of a corporate guarantee as specified in § 261.143(e) must make such a notification if he is named as debtor, as required under the terms of the corporate guarantee.

(b) An owner or operator who fulfills the requirements of § 261.143 or § 261.147 by obtaining a trust fund, surety bond, letter of credit, or insurance policy will be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or operator must establish other financial assurance or liability coverage within 60 days after such an event.

§ 261.149 Use of State-required mechanisms.

(a) For a reclamation or intermediate facility located in a State where EPA is administering the requirements of this subpart but where the State has regulations that include requirements for financial assurance of closure or liability coverage, an owner or operator may use State-required financial mechanisms to meet the requirements of § 261.143 or § 261.147 if the Regional Administrator determines that the State mechanisms are at least equivalent to the financial mechanisms specified in this subpart. The Regional Administrator will evaluate the equivalency of the mechanisms principally in terms of certainty of the availability of: Funds for the required closure activities or liability coverage; and the amount of funds that will be made available. The Regional Administrator may also consider other factors as he deems appropriate. The owner or operator must submit to the Regional Administrator evidence of the establishment of the mechanism together with a letter requesting that the State-required mechanism be considered acceptable for meeting the requirements of this subpart. The submission must include the following information: The facility's EPA Identification Number (if available), name, and address, and the amount of funds for closure or liability coverage assured by the mechanism. The Regional Administrator will notify the owner or operator of his determination regarding the mechanism's acceptability in lieu of financial mechanisms specified in this subpart. The Regional Administrator may require the owner or operator to submit additional information as is deemed necessary to make this determination. Pending this determination, the owner or operator will be deemed to be in compliance with the requirements of § 261.143 or § 261.147, as applicable.

(b) If a State-required mechanism is found acceptable as specified in paragraph (a) of this section except for the amount of funds available, the owner or operator may satisfy the requirements of this subpart by increasing the funds available through the State-required mechanism or using additional financial mechanisms as specified in this subpart. The amount of funds available through the State and Federal mechanisms must at least equal the amount required by this subpart.

§ 261.150 State assumption of responsibility.

(a) If a State either assumes legal responsibility for an owner's or operator's compliance with the closure or liability requirements of this part or assures that funds will be available from State sources to cover those requirements, the owner or operator will be in compliance with the requirements of § 261.143 or § 261.147 if the Regional Administrator determines that the State's assumption of responsibility is at

least equivalent to the financial mechanisms specified in this subpart. The Regional Administrator will evaluate the equivalency of State guarantees principally in terms of: Certainty of the availability of funds for the required closure activities or liability coverage; and the amount of funds that will be made available. The Regional Administrator may also consider other factors as he deems appropriate. The owner or operator must submit to the Regional Administrator a letter from the State describing the nature of the State's assumption of responsibility together with a letter from the owner or operator requesting that the State's assumption of responsibility be considered acceptable for meeting the requirements of this subpart. The letter from the State must include, or have attached to it, the following information: The facility's EPA Identification Number (if available), name, and address, and the amount of funds for closure or liability coverage that are guaranteed by the State. The Regional Administrator will notify the owner or operator of his determination regarding the acceptability of the State's guarantee in lieu of financial mechanisms specified in this subpart. The Regional Administrator may require the owner or operator to submit additional information as is deemed necessary to make this determination. Pending this determination, the owner or operator will be deemed to be in compliance with the requirements of § 265.143 or § 265.147, as applicable.

(b) If a State's assumption of responsibility is found acceptable as specified in paragraph (a) of this section except for the amount of funds available, the owner or operator may satisfy the requirements of this subpart by use of both the State's assurance and additional financial mechanisms as specified in this subpart. The amount of funds available through the State and Federal mechanisms must at least equal the amount required by this subpart.

§ 261.151 Wording of the instruments.

(a)(1) A trust agreement for a trust fund, as specified in § 261.143(a) must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Trust Agreement

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator], a [name of State] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert "incorporated in the State of _____" or "a national bank"], the "Trustee."

Whereas, the United States Environmental Protection Agency, "EPA," an agency of the United States Government, has established certain regulations applicable to the Grantor, requiring that an owner or operator of a facility regulated under parts 264, or 265, or satisfying the conditions of the exclusion under § 261.4(a)(24) shall provide assurance that funds will be available if needed for care of the facility under 40 CFR parts 264 or 265, subparts G, as applicable ,

Whereas, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the facilities identified herein,

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee,

Now, Therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities and Cost Estimates. This Agreement pertains to the facilities and cost estimates identified on attached Schedule A [on Schedule A, for each facility list the EPA Identification Number (if available), name, address, and the current cost estimates, or portions thereof, for which financial assurance is demonstrated by this Agreement].

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of EPA in the event that the hazardous secondary materials of the grantor no longer meet the conditions of the exclusion under § 261.4(a)(24). The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by EPA.

Section 4. Payments from the Fund. The Trustee shall make payments from the Fund as the EPA Regional Administrator shall direct, in writing, to provide for the payment of the costs of the performance of activities required under subpart G of 40 CFR parts 264 or 265 for the facilities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the EPA Regional Administrator from the Fund for expenditures for such activities in such amounts as the beneficiary shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the EPA Regional Administrator specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a–2.(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a–1 *et seq.*, including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing

with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the appropriate EPA Regional Administrator a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the EPA Regional Administrator shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the EPA Regional Administrator, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the EPA Regional Administrator to the Trustee shall be in writing, signed by the EPA Regional Administrators of the Regions in which the facilities are located, or their designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or EPA hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or EPA, except as provided for herein.

Section 15. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the appropriate EPA Regional Administrator, or by the Trustee and the appropriate EPA Regional Administrator if the Grantor ceases to exist.

Section 16. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the EPA Regional Administrator, or by the Trustee and the EPA Regional Administrator, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 17. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the EPA Regional Administrator issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 18. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of [insert name of State].

Section 19. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written: The parties below certify that the wording of this Agreement is identical to the wording specified in 40 CFR 261.151(a)(1) as such regulations were constituted on the date first above written.

[Signature of Grantor]
[Title]

Attest:
[Title]
[Seal]
[Signature of Trustee]

Attest:
[Title]
[Seal]

(2) The following is an example of the certification of acknowledgment which must accompany the trust agreement for a trust fund as specified in § 261.143(a) of this chapter. State requirements may differ on the proper content of this acknowledgment.

State of _____
County of _____

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

[Signature of Notary Public]

(b) A surety bond guaranteeing payment into a trust fund, as specified in § 261.143(b) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Financial Guarantee Bond

Date bond executed:
Effective date:
Principal: [legal name and business address of owner or operator]
Type of Organization: [insert "individual," "joint venture," "partnership," or "corporation"]
State of incorporation: _____
Surety(ies): [name(s) and business address(es)]
EPA Identification Number, name, address and amount(s) for each facility guaranteed by this bond: _____
Total penal sum of bond: $ _____
Surety's bond number: _____

Know All Persons By These Presents, That we, the Principal and Surety(ies) are firmly bound to the U.S. EPA in the event that the hazardous secondary materials at the reclamation or intermediate facility listed below no longer meet the conditions of the exclusion under 40 CFR 261.4(a)(24), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required, under the Resource Conservation and Recovery Act as amended (RCRA), to have a permit or interim status in order to own or operate each facility identified above, or to meet conditions under 40 CFR sections 261.4(a)(24), and

Whereas said Principal is required to provide financial assurance as a condition of permit or interim status or as a condition of an exclusion under 40 CFR sections 261.4(a)(24) and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, Therefore, the conditions of the obligation are such that if the Principal shall faithfully, before the beginning of final closure of each facility identified above, fund the standby trust fund in the amount(s) identified above for the facility,

Or, if the Principal shall satisfy all the conditions established for exclusion of hazardous secondary materials from coverage as solid waste under 40 CFR sections 261.4(a)(24),

Or, if the Principal shall fund the standby trust fund in such amount(s) within 15 days after a final order to begin closure is issued by an EPA Regional Administrator or a U.S. district court or other court of competent jurisdiction,

Or, if the Principal shall provide alternate financial assurance, as specified in subpart H of 40 CFR part 261, as applicable, and obtain the EPA Regional Administrator's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the EPA Regional Administrator(s) from the Surety(ies), then this obligation shall be null and void; otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above. Upon notification by an EPA Regional Administrator that the Principal has failed to perform as guaranteed by this bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the EPA Regional Administrator.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is (are) located, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the EPA Regional Administrator(s), as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the EPA Regional Administrator(s) of the EPA Region(s) in which the bonded facility(ies) is (are) located.

[The following paragraph is an optional rider that may be included but is not required.]

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the EPA Regional Administrator(s).

In Witness Whereof, the Principal and Surety(ies) have executed this Financial Guarantee Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in 40 CFR 261.151(b) as such regulations were constituted on the date this bond was executed.

Principal

[Signature(s)]

_____

[Name(s)]

_____

[Title(s)]

_____

[Corporate seal] _____

Corporate Surety(ies)

[Name and address]
State of incorporation: _____
Liability limit:
$ _____

[Signature(s)]
[Name(s) and title(s)]
[Corporate seal]
[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]
Bond premium: $ _____

(c) A letter of credit, as specified in § 261.143(c) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Irrevocable Standby Letter of Credit

Regional Administrator(s)

Region(s) _____

U.S. Environmental Protection Agency

Dear Sir or Madam: We hereby establish our Irrevocable Standby Letter of Credit No._____ in your favor, in the event that the hazardous secondary materials at the covered reclamation or intermediary facility(ies) no longer meet the conditions of the exclusion under 40 CFR 261.4(a)(24), at the request and for the account of [owner's or operator's name and address] up to the aggregate amount of [in words] U.S. dollars $_____, available upon presentation of

(1) your sight draft, bearing reference to this letter of credit No.____, and

(2) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Resource Conservation and Recovery Act of 1976 as amended."

This letter of credit is effective as of [date] and shall expire on [date at least 1 year later], but such expiration date shall be automatically extended for a period of [at least 1 year] on [date] and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify both you and [owner's or operator's name] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both you and [owner's or operator's name], as shown on the signed return receipts.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of [owner's or operator's name] in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in 40 CFR 261.151(c) as such regulations were constituted on the date shown immediately below.

[Signature(s) and title(s) of official(s) of issuing institution] [Date]

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published

and copyrighted by the International Chamber of Commerce," or "the Uniform Commercial Code"].

(d) A certificate of insurance, as specified in § 261.143(e) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certificate of Insurance

Name and Address of Insurer (herein called the "Insurer"):

_____

Name and Address of Insured (herein called the "Insured"):

_____

Facilities Covered: [List for each facility: The EPA Identification Number (if any issued), name, address, and the amount of insurance for all facilities covered, which must total the face amount shown below.

Face Amount:

_____

Policy Number: _____

Effective Date:

_____

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance so that in accordance with applicable regulations all hazardous secondary materials can be removed from the facility or any unit at the facility and the facility or any unit at the facility can be decontaminated at the facilities identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of 40 CFR 261.143(d) as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the EPA Regional Administrator(s) of the U.S. Environmental Protection Agency, the Insurer agrees to furnish to the EPA Regional Administrator(s) a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is identical to the wording specified in 40 CFR 261.151(d) such regulations were constituted on the date shown immediately below.

[Authorized signature for Insurer]

[Name of person signing]

[Title of person signing]

Signature of witness or notary: _____

[Date]

(e) A letter from the chief financial officer, as specified in § 261.143(e) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Letter From Chief Financial Officer

[Address to Regional Administrator of every Region in which facilities for which financial responsibility is to be demonstrated through the financial test are located].

I am the chief financial officer of [name and address of firm]. This letter is in support of this firm's use of the financial test to demonstrate financial assurance, as specified in subpart H of 40 CFR part 261.

[Fill out the following nine paragraphs regarding facilities and associated cost estimates. If your firm has no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA Identification Number (if any issued), name, address, and current cost estimates.]

1. This firm is the owner or operator of the following facilities for which financial assurance is demonstrated through the financial test specified in subpart H of 40 CFR 261. The current cost estimates covered by the test are shown for each facility: _____.

2. This firm guarantees, through the guarantee specified in subpart H of 40 CFR part 261, the following facilities owned or operated by the guaranteed party. The current cost estimates so guaranteed are shown for each facility: _____. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee_____, or (3) engaged in the following substantial business relationship with the owner or operator _____, and receiving the following value in consideration of this guarantee_____]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter].

3. In States where EPA is not administering the financial requirements of subpart H of 40 CFR part 261, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in subpart H of 40 CFR part 261. The current cost estimates covered by such a test are shown for each facility:_____.

4. This firm is the owner or operator of the following hazardous secondary materials management facilities for which financial assurance is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in subpart H of 40 CFR part 261 or equivalent or substantially equivalent State mechanisms. The current cost estimates not covered by such financial assurance are shown for each facility:_____.

5. This firm is the owner or operator of the following UIC facilities for which financial assurance for plugging and abandonment is required under part 144. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility:_____.

6. This firm is the owner or operator of the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in subpart H of 40 CFR parts 264 and 265. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: _____ .

7. This firm guarantees, through the guarantee specified in subpart H of 40 CFR parts 264 and 265, the closure or post-closure care of the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: _____. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee _____; or (3) engaged in the following substantial business relationship with the owner or operator ____, and receiving the following value in consideration of this guarantee ____]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter].

8. In States where EPA is not administering the financial requirements of subpart H of 40 CFR part 264 or 265, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in subpart H of 40 CFR parts 264 and 265. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility: ____.

9. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in subpart H of 40 CFR parts 264 and 265 or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: ____.

This firm [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended [date].

[Fill in Alternative I if the criteria of paragraph (e)(1)(i) of § 261.143 of this chapter are used. Fill in Alternative II if the criteria of paragraph (e)(1)(ii) of § 261.143(e) of this chapter are used.]

Alternative I

1. Sum of current cost estimates [total of all cost estimates shown in the nine paragraphs above] $____

*2. Total liabilities [if any portion of the cost estimates is included in total liabilities, you may deduct the amount of that portion from this line and add that amount to lines 3 and 4] $____

*3. Tangible net worth $_____

*4. Net worth $_____

*5. Current assets $_____

*6. Current liabilities $_____

7. Net working capital [line 5 minus line 6] $_____

*8. The sum of net income plus depreciation, depletion, and amortization $_____-

*9. Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.) $_____-

10. Is line 3 at least $10 million? (Yes/No) _____

11. Is line 3 at least 6 times line 1? (Yes/No) _____-

12. Is line 7 at least 6 times line 1? (Yes/No) _____-

*13. Are at least 90% of firm's assets located in the U.S.? If not, complete line 14 (Yes/No) _____

14. Is line 9 at least 6 times line 1? (Yes/No) _____-

15. Is line 2 divided by line 4 less than 2.0? (Yes/No) _____-

16. Is line 8 divided by line 2 greater than 0.1? (Yes/No) _____-

17. Is line 5 divided by line 6 greater than 1.5? (Yes/No) _____-

Alternative II

1. Sum of current cost estimates [total of all cost estimates shown in the eight paragraphs above] $_____-

2. Current bond rating of most recent issuance of this firm and name of rating service _____-

3. Date of issuance of bond _____-

4. Date of maturity of bond _____-

*5. Tangible net worth [if any portion of the cost estimates is included in "total liabilities" on your firm's financial statements, you may add the amount of that portion to this line] $_____-

*6. Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.) $_____-

7. Is line 5 at least $10 million? (Yes/No) _____

8. Is line 5 at least 6 times line 1? (Yes/No) _____

*9. Are at least 90% of firm's assets located in the U.S.? If not, complete line 10 (Yes/No) _____

10. Is line 6 at least 6 times line 1? (Yes/No) _____-

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR 261.151(e) as such regulations were constituted on the date shown immediately below.

[Signature] _____

[Name] _____

[Title] _____

[Date]

(f) A letter from the chief financial officer, as specified in Sec. 261.147(f) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted.

Letter From Chief Financial Officer

[Address to Regional Administrator of every Region in which facilities for which financial responsibility is to be demonstrated through the financial test are located].

I am the chief financial officer of [firm's name and address]. This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage under § 261.147[insert "and costs assured § 261.143(e)" if applicable] as specified in subpart H of 40 CFR part 261.

[Fill out the following paragraphs regarding facilities and liability coverage. If there are no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA Identification Number (if any issued), name, and address].

The firm identified above is the owner or operator of the following facilities for which liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences is being demonstrated through the financial test specified in subpart H of 40 CFR part 261:_____

The firm identified above guarantees, through the guarantee specified in subpart H of 40 CFR part 261, liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences at the following facilities owned or operated by the following: _____-. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee -_____; or (3) engaged in the following substantial business relationship with the owner or operator _____-, and receiving the following value in consideration of this guarantee _____-]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter.]

The firm identified above is the owner or operator of the following facilities for which liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences is being demonstrated through the financial test specified in subpart H of 40 CFR parts 264 and 265:_____

The firm identified above guarantees, through the guarantee specified in subpart H of 40 CFR parts 264 and 265, liability coverage for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences at the following facilities owned or operated by the following: ____. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee ____; or (3) engaged in the following substantial business relationship with the owner or operator ____, and receiving the following value in consideration of this guarantee ____]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter.]

[If you are using the financial test to demonstrate coverage of both liability and costs assured under § 261.143(e) or closure or post-closure care costs under 40 CFR 264.143, 264.145, 265.143 or 265.145, fill in the following nine paragraphs regarding facilities and associated cost estimates. If there are no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA identification number (if any issued), name, address, and current cost estimates.]

1. This firm is the owner or operator of the following facilities for which financial assurance is demonstrated through the financial test specified in subpart H of 40 CFR 261. The current cost estimates covered by the test are shown for each facility:_____.

2. This firm guarantees, through the guarantee specified in subpart H of 40 CFR part 261, the following facilities owned or operated by the guaranteed party. The current cost estimates so guaranteed are shown for each facility:_____. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee_____, or (3) engaged in the following substantial business relationship with the owner or operator _____, and receiving the following value in consideration of this guarantee_____]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter].

3. In States where EPA is not administering the financial requirements of subpart H of 40 CFR part 261, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in subpart H of 40 CFR part 261. The current cost estimates covered by such a test are shown for each facility:_____.

4. This firm is the owner or operator of the following hazardous secondary materials management facilities for which financial assurance is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in subpart H of 40 CFR part 261 or equivalent or substantially equivalent State mechanisms. The current cost estimates not covered by such financial assurance are shown for each facility:_____.

5. This firm is the owner or operator of the following UIC facilities for which financial assurance for plugging and abandonment is required under part 144. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility:_____.

6. This firm is the owner or operator of the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in subpart H of 40 CFR parts 264 and 265. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: _____.

7. This firm guarantees, through the guarantee specified in subpart H of 40 CFR parts 264 and 265, the closure or post-closure care of the following facilities owned or operated by the guaranteed party. The

current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: _____. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee _____; or (3) engaged in the following substantial business relationship with the owner or operator _____, and receiving the following value in consideration of this guarantee _____].

[Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter].

8. In States where EPA is not administering the financial requirements of subpart H of 40 CFR part 264 or 265, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in subpart H of 40 CFR parts 264 and 265. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility: _____.

9. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in subpart H of 40 CFR parts 264 and 265 or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: _____.

This firm [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended [date].

Part A. Liability Coverage for Accidental Occurrences

[Fill in Alternative I if the criteria of paragraph (f)(1)(i) of Sec. 261.147 are used. Fill in Alternative II if the criteria of paragraph (f)(1)(ii) of Sec. 261.147 are used.]

Alternative I

1. Amount of annual aggregate liability coverage to be demonstrated $_____-.

*2. Current assets $_____-.

*3. Current liabilities $_____-.

4. Net working capital (line 2 minus line 3) $_____-.

*5. Tangible net worth $_____-.

*6. If less than 90% of assets are located in the U.S., give total U.S. assets $_____.

7. Is line 5 at least $10 million? (Yes/No) _____-.

8. Is line 4 at least 6 times line 1? (Yes/No) _____-.

9. Is line 5 at least 6 times line 1? (Yes/No) _____-.

*10. Are at least 90% of assets located in the U.S.? (Yes/No) _____. If not, complete line 11.

11. Is line 6 at least 6 times line 1? (Yes/No) _____.

Alternative II

1. Amount of annual aggregate liability coverage to be demonstrated $_____-.

2. Current bond rating of most recent issuance and name of rating service _____-.

3. Date of issuance of bond _____—.

4. Date of maturity of bond _____—.

*5. Tangible net worth $_____-.

*6. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.) $_____-.

7. Is line 5 at least $10 million? (Yes/No) _____-.

8. Is line 5 at least 6 times line 1? _____.

9. Are at least 90% of assets located in the U.S.? If not, complete line 10. (Yes/No) ——.

10. Is line 6 at least 6 times line 1? _____-.

[Fill in part B if you are using the financial test to demonstrate assurance of both liability coverage and costs assured under § 261.143(e) or closure or post-closure care costs under 40 CFR 264.143, 264.145, 265.143 or 265.145.]

Part B. Facility Care and Liability Coverage

[Fill in Alternative I if the criteria of paragraphs (e)(1)(i) of Sec. 261.143 and (f)(1)(i) of Sec. 261.147 are used. Fill in Alternative II if the criteria of paragraphs (e)(1)(ii) of Sec. 261.143 and (f)(1)(ii) of Sec. 261.147 are used.]

Alternative I

1. Sum of current cost estimates (total of all cost estimates listed above) $_____-

2. Amount of annual aggregate liability coverage to be demonstrated $_____-

3. Sum of lines 1 and 2 $_____

*4. Total liabilities (if any portion of your cost estimates is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6) $_____-

*5. Tangible net worth $_____

*6. Net worth $_____-

*7. Current assets $_____

*8. Current liabilities $_____

9. Net working capital (line 7 minus line 8) $_____

*10. The sum of net income plus depreciation, depletion, and amortization $_____-

*11. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.) $_____

12. Is line 5 at least $10 million? (Yes/No)

13. Is line 5 at least 6 times line 3? (Yes/No)

14. Is line 9 at least 6 times line 3? (Yes/No)

*15. Are at least 90% of assets located in the U.S.? (Yes/No) If not, complete line 16.

16. Is line 11 at least 6 times line 3? (Yes/No)

17. Is line 4 divided by line 6 less than 2.0? (Yes/No)

18. Is line 10 divided by line 4 greater than 0.1? (Yes/No)

19. Is line 7 divided by line 8 greater than 1.5? (Yes/No)

Alternative II

1. Sum of current cost estimates (total of all cost estimates listed above) $____-

2. Amount of annual aggregate liability coverage to be demonstrated $____-

3. Sum of lines 1 and 2 $____

4. Current bond rating of most recent issuance and name of rating service _____-

5. Date of issuance of bond _____—

6. Date of maturity of bond _____—

*7. Tangible net worth (if any portion of the cost estimates is included in "total liabilities" on your financial statements you may add that portion to this line) $____-

*8. Total assets in the U.S. (required only if less than 90% of assets are located in the U.S.) $____-

9. Is line 7 at least $10 million? (Yes/No)

10. Is line 7 at least 6 times line 3? (Yes/No)

*11. Are at least 90% of assets located in the U.S.? (Yes/No) If not complete line 12.

12. Is line 8 at least 6 times line 3? (Yes/No)

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR 261.151(f) as such regulations were constituted on the date shown immediately below.

[Signature] _____

[Name] _____

[Title] _____

[Date] _____

(g)(1) A corporate guarantee, as specified in § 261.143(e) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Corporate Guarantee for Facility Care

Guarantee made this [date] by [name of guaranteeing entity], a business corporation organized under the laws of the State of [insert name of State], herein referred to as guarantor. This guarantee is made on behalf of the [owner or operator] of [business address], which is [one of the following: "our subsidiary"; "a subsidiary of [name and address of common parent corporation], of which guarantor is a subsidiary"; or "an entity with which guarantor has a substantial business relationship, as defined in 40 CFR 264.141(h) and 265.141(h)" to the United States Environmental Protection Agency (EPA).

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in 40 CFR 261.143(e).

2. [Owner or operator] owns or operates the following facility(ies) covered by this guarantee: [List for each facility: EPA Identification Number (if any issued), name, and address.

3. "Closure plans" as used below refer to the plans maintained as required by subpart H of 40 CFR part 261 for the care of facilities as identified above.

4. For value received from [owner or operator], guarantor guarantees that in the event of a determination by the Regional Administrator that the hazardous secondary materials at the owner or operator's facility covered by this guarantee do not meet the conditions of the exclusion under § 261.4(a)(24), the guarantor will dispose of any hazardous secondary material as hazardous waste, and close the facility in accordance with closure requirements found in parts 264 or 265 of this chapter, as applicable, or establish a trust fund as specified in § 261.143(a) in the name of the owner or operator in the amount of the current cost estimate.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is(are) located and to [owner or operator] that he intends to provide alternate financial assurance as specified in subpart H of 40 CFR part 261, as applicable, in the name of [owner or operator]. Within 120 days after the end of such fiscal year, the guarantor shall establish such financial assurance unless [owner or operator] has done so.

6. The guarantor agrees to notify the EPA Regional Administrator by certified mail, of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

7. Guarantor agrees that within 30 days after being notified by an EPA Regional Administrator of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor, he shall establish alternate financial assurance as specified in of 40 CFR parts 264, 265, or subpart H of 40 CFR part 261, as applicable, in the name of [owner or operator] unless [owner or operator] has done so.

8. Guarantor agrees to remain bound under this guarantee notwithstanding any or all of the following: amendment or modification of the closure plan, the extension or reduction of the time of performance, or any other modification or alteration of an obligation of the owner or operator pursuant to 40 CFR parts 264, 265, or Subpart H of 40 CFR part 261.

9. Guarantor agrees to remain bound under this guarantee for as long as [owner or operator] must comply with the applicable financial assurance requirements of 40 CFR parts 264 and 265 or the financial assurance condition of 40 CFR 261.4(a)(24)(vi)(F) for the above-listed facilities, except as provided in paragraph 10 of this agreement.

10. [Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator]:

Guarantor may terminate this guarantee by sending notice by certified mail to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is(are) located and to [owner or operator], provided that this guarantee may not be terminated unless and until [the owner or operator] obtains, and the EPA Regional Administrator(s) approve(s), alternate coverage complying with 40 CFR 261.143.

[Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with the owner or operator]

Guarantor may terminate this guarantee 120 days following the receipt of notification, through certified mail, by the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is(are) located and by [the owner or operator].

11. Guarantor agrees that if [owner or operator] fails to provide alternate financial assurance as specified in 40 CFR parts 264, 265, or subpart H of 40 CFR 261, as applicable, and obtain written approval of such assurance from the EPA Regional Administrator(s) within 90 days after a notice of cancellation by the guarantor is received by an EPA Regional Administrator from guarantor, guarantor shall provide such alternate financial assurance in the name of [owner or operator].

12. Guarantor expressly waives notice of acceptance of this guarantee by the EPA or by [owner or operator]. Guarantor also expressly waives notice of amendments or modifications of the closure plan and of amendments or modifications of the applicable requirements of 40 CFR parts 264, 265, or subpart H of 40 CFR 261.

I hereby certify that the wording of this guarantee is identical to the wording specified in 40 CFR 261.151(g)(1) as such regulations were constituted on the date first above written.

Effective date: _____

[Name of guarantor] _____

[Authorized signature for guarantor] _____

[Name of person signing] _____

[Title of person signing] _____

Signature of witness or notary: _____

(2) A guarantee, as specified in Sec. 261.147(g) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Guarantee for Liability Coverage

Guarantee made this [date] by [name of guaranteeing entity], a business corporation organized under the laws of [if incorporated within the United States insert "the State of ____-" and insert name of State; if incorporated outside the United States insert the name of the country in which incorporated, the principal place of business within the United States, and the name and address of the registered agent in the State of the principal place of business], herein referred to as guarantor. This guarantee is made on behalf of [owner or operator] of [business address], which is one of the following: "our subsidiary;" "a subsidiary of [name and address of common parent corporation], of which guarantor is a subsidiary;" or "an entity with which guarantor has a substantial business relationship, as defined in 40 CFR [either 264.141(h) or 265.141(h)]", to any and all third parties who have sustained or may sustain bodily injury or property damage caused by [sudden and/or nonsudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee.

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in 40 CFR 261.147(g).

2. [Owner or operator] owns or operates the following facility(ies) covered by this guarantee: [List for each facility: EPA identification number (if any issued), name, and address; and if guarantor is incorporated outside the United States list the name and address of the guarantor's registered agent in each State.] This corporate guarantee satisfies RCRA third-party liability requirements for [insert "sudden" or "nonsudden" or "both sudden and nonsudden"] accidental occurrences in above-named owner or operator facilities for coverage in the amount of [insert dollar amount] for each occurrence and [insert dollar amount] annual aggregate.

3. For value received from [owner or operator], guarantor guarantees to any and all third parties who have sustained or may sustain bodily injury or property damage caused by [sudden and/or nonsudden] accidental occurrences arising from operations of the facility(ies) covered by this guarantee that in the event that [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by [sudden and/or nonsudden] accidental occurrences, arising from the operation of the above-named facilities, or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor will satisfy such judgment(s), award(s) or settlement agreement(s) up to the limits of coverage identified above.

4. Such obligation does not apply to any of the following:

(a) Bodily injury or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert owner or operator] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert owner or operator] arising from, and in the course of, employment by [insert owner or operator]; or

(2) The spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert owner or operator]. This exclusion applies:

(A) Whether [insert owner or operator] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert owner or operator];

(2) Premises that are sold, given away or abandoned by [insert owner or operator] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert owner or operator];

(4) Personal property in the care, custody or control of [insert owner or operator];

(5) That particular part of real property on which [insert owner or operator] or any contractors or subcontractors working directly or indirectly on behalf of [insert owner or operator] are performing operations, if the property damage arises out of these operations.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the EPA Regional Administrator[s] for the Region[s] in which the facility[ies] is[are] located and to [owner or operator] that he intends to provide alternate liability coverage as specified in 40 CFR 261.147, as applicable, in the name of [owner or operator]. Within 120 days after the end of such fiscal year, the guarantor shall establish such liability coverage unless [owner or operator] has done so.

6. The guarantor agrees to notify the EPA Regional Administrator by certified mail of a voluntary or involuntary proceeding under title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding. Guarantor agrees that within 30 days after being notified by an EPA Regional Administrator of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor, he shall establish alternate liability coverage as specified in 40 CFR 261.147 in the name of [owner or operator], unless [owner or operator] has done so.

7. Guarantor reserves the right to modify this agreement to take into account amendment or modification of the liability requirements set by 40 CFR 261.147, provided that such modification shall become effective only if a Regional Administrator does not disapprove the modification within 30 days of receipt of notification of the modification.

8. Guarantor agrees to remain bound under this guarantee for so long as [owner or operator] must comply with the applicable requirements of 40 CFR 261.147 for the above-listed facility(ies), except as provided in paragraph 10 of this agreement.

9. [Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator]:

10. Guarantor may terminate this guarantee by sending notice by certified mail to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is(are) located and to [owner or operator], provided that this guarantee may not be terminated unless and until [the owner or operator] obtains, and the EPA Regional Administrator(s) approve(s), alternate liability coverage complying with 40 CFR 261.147.

[Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with the owner or operator]:

Guarantor may terminate this guarantee 120 days following receipt of notification, through certified mail, by the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is(are) located and by [the owner or operator].

11. Guarantor hereby expressly waives notice of acceptance of this guarantee by any party.

12. Guarantor agrees that this guarantee is in addition to and does not affect any other responsibility or liability of the guarantor with respect to the covered facilities.

13. The Guarantor shall satisfy a third-party liability claim only on receipt of one of the following documents:

(a) Certification from the Principal and the third-party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Valid Claim

The undersigned, as parties [insert Principal] and [insert name and address of third-party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Principal's] facility should be paid in the amount of $.

[Signatures] _____

Principal _____

(Notary) Date _____

[Signatures] _____

Claimant(s) _____

(Notary) Date _____

(b) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

14. In the event of combination of this guarantee with another mechanism to meet liability requirements, this guarantee will be considered [insert "primary" or "excess"] coverage.

I hereby certify that the wording of the guarantee is identical to the wording specified in 40 CFR 261.151(g)(2) as such regulations were constituted on the date shown immediately below.

Effective date: _____

[Name of guarantor] _____

[Authorized signature for guarantor] _____

[Name of person signing] _____

[Title of person signing] _____

Signature of witness or notary: _____

(h) A hazardous waste facility liability endorsement as required § 261.147 must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Hazardous Secondary Material Reclamation/ Intermediate Facility Liability Endorsement

1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering bodily injury and property damage in connection with the insured's obligation to demonstrate financial responsibility under 40 CFR 261.147. The coverage applies at [list EPA Identification Number (if any issued), name, and address for each facility] for [insert "sudden accidental occurrences," "nonsudden accidental occurrences," or "sudden and nonsudden accidental occurrences"; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are insured for both]. The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's liability], exclusive of legal defense costs.

2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions of the policy inconsistent with subsections (a) through (e) of this Paragraph 2 are hereby amended to conform with subsections (a) through (e):

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy to which this endorsement is attached.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 261.147(f).

(c) Whenever requested by a Regional Administrator of the U.S. Environmental Protection Agency (EPA), the Insurer agrees to furnish to the Regional Administrator a signed duplicate original of the policy and all endorsements.

(d) Cancellation of this endorsement, whether by the Insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the facility, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Regional Administrator(s) of the EPA Region(s) in which the facility(ies) is(are) located.

(e) Any other termination of this endorsement will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Regional Administrator(s) of the EPA Region(s) in which the facility(ies) is (are) located.

Attached to and forming part of policy No. —— issued by [name of Insurer], herein called the Insurer, of [address of Insurer] to [name of insured] of [address] this _____ day of _____, 19____. The effective date of said policy is _____ day of _____, 19____.

I hereby certify that the wording of this endorsement is identical to the wording specified in 40 CFR 261.151(h) as such

regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

[Signature of Authorized Representative of Insurer]

[Type name]

[Title], Authorized Representative of [name of Insurer]

[Address of Representative]

(i) A certificate of liability insurance as required in § 261.147 must be worded as follows, except that the instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Hazardous Secondary Material Reclamation/ Intermediate Facility Certificate of Liability Insurance

1. [Name of Insurer], (the "Insurer"), of [address of Insurer] hereby certifies that it has issued liability insurance covering bodily injury and property damage to [name of insured], (the "insured"), of [address of insured] in connection with the insured's obligation to demonstrate financial responsibility under 40 CFR parts 264, 265, and the financial assurance condition of 40 CFR 261.4(a)(24)(vi)(F). The coverage applies at [list EPA Identification Number (if any issued), name, and address for each facility] for [insert "sudden accidental occurrences," "nonsudden accidental occurrences," or "sudden and nonsudden accidental occurrences"; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are insured for both]. The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's liability], exclusive of legal defense costs. The coverage is provided under policy number, issued on [date]. The effective date of said policy is [date].

2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1:

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 261.147.

(c) Whenever requested by a Regional Administrator of the U.S. Environmental Protection Agency (EPA), the Insurer agrees to furnish to the Regional Administrator a signed duplicate original of the policy and all endorsements.

(d) Cancellation of the insurance, whether by the insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Regional Administrator(s) of the EPA Region(s) in which the facility(ies) is(are) located.

(e) Any other termination of the insurance will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Regional Administrator(s) of the EPA Region(s) in which the facility(ies) is (are) located.

I hereby certify that the wording of this instrument is identical to the wording specified in 40 CFR 261.151(i) as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

[Signature of authorized representative of Insurer]

[Type name]

[Title], Authorized Representative of [name of Insurer]

[Address of Representative]

(j) A letter of credit, as specified in § 261.147(h) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Irrevocable Standby Letter of Credit

Name and Address of Issuing Institution ____

Regional Administrator(s) ____

Region(s) ____

U.S. Environmental Protection Agency ____

Dear Sir or Madam: We hereby establish our Irrevocable Standby Letter of Credit No. _____ ----- in the favor of ["any and all third-party liability claimants" or insert name of trustee of the standby trust fund], at the request and for the account of [owner or operator's name and address] for third-party liability awards or settlements up to [in words] U.S. dollars $_____ ----- per occurrence and the annual aggregate amount of [in words] U.S. dollars $—, for sudden accidental occurrences and/or for third-party liability awards or settlements up to the amount of [in words] U.S. dollars $_____ ----- per occurrence, and the annual aggregate amount of [in words] U.S. dollars $_____ -----, for nonsudden accidental occurrences available upon presentation of a sight draft bearing reference to this letter of credit No. _____ -----, and [insert the following language if the letter of credit is being used without a standby trust fund: (1) a signed certificate reading as follows:

Certificate of Valid Claim

The undersigned, as parties [insert principal] and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operations of [principal's] facility should be paid in the amount of $[ ]. We hereby certify that the claim does not apply to any of the following:

(a) Bodily injury or property damage for which [insert principal] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert principal] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert principal] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert principal] arising from, and in the course of, employment by [insert principal]; or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert principal].

This exclusion applies:

(A) Whether [insert principal] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert principal];

(2) Premises that are sold, given away or abandoned by [insert principal] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert principal];

(4) Personal property in the care, custody or control of [insert principal];

(5) That particular part of real property on which [insert principal] or any contractors or subcontractors working directly or indirectly on behalf of [insert principal] are performing operations, if the property damage arises out of these operations.

[Signatures] ____

Grantor ____

[Signatures] ____

Claimant(s) ____

or (2) a valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.]

This letter of credit is effective as of [date] and shall expire on [date at least one year later], but such expiration date shall be automatically extended for a period of [at least one year] on [date and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify you, the USEPA Regional Administrator for Region [Region], and [owner's or operator's name] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us.

[Insert the following language if a standby trust fund is not being used: "In the event that this letter of credit is used in combination with another mechanism for

liability coverage, this letter of credit shall be considered [insert "primary" or "excess" coverage]."

We certify that the wording of this letter of credit is identical to the wording specified in 40 CFR 261.151(j) as such regulations were constituted on the date shown immediately below. [Signature(s) and title(s) of official(s) of issuing institution] [Date].

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce," or "the Uniform Commercial Code"].

(k) A surety bond, as specified in Sec. 261.147(i) of this chapter, must be worded as follows: except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Payment Bond

Surety Bond No. [Insert number]

Parties [Insert name and address of owner or operator], Principal, incorporated in [Insert State of incorporation] of [Insert city and State of principal place of business] and [Insert name and address of surety company(ies)], Surety Company(ies), of [Insert surety(ies) place of business].

EPA Identification Number (if any issued), name, and address for each facility guaranteed by this bond: ____

Nonsudden	
Sudden accidental	
accidental	
occurrences	
occurrences	
Penal Sum Per Occurrence	[insert amount] ..... [insert amount]
Annual Aggregate	[insert amount] ..... [insert amount]

Purpose: This is an agreement between the Surety(ies) and the Principal under which the Surety(ies), its(their) successors and assignees, agree to be responsible for the payment of claims against the Principal for bodily injury and/or property damage to third parties caused by ["sudden" and/or "nonsudden"] accidental occurrences arising from operations of the facility or group of facilities in the sums prescribed herein; subject to the governing provisions and the following conditions.

Governing Provisions:

(1) Section 3004 of the Resource Conservation and Recovery Act of 1976, as amended.

(2) Rules and regulations of the U.S. Environmental Protection Agency (EPA), particularly 40 CFR parts 264, 265, and Subpart H of 40 CFR part 261 (if applicable).

(3) Rules and regulations of the governing State agency (if applicable) [insert citation].

Conditions:

(1) The Principal is subject to the applicable governing provisions that require the Principal to have and maintain liability coverage for bodily injury and property damage to third parties caused by ["sudden" and/or "nonsudden"] accidental occurrences arising from operations of the facility or group of facilities. Such obligation does not apply to any of the following:

(a) Bodily injury or property damage for which [insert Principal] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert Principal] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert Principal] under a workers' compensation, disability benefits, or unemployment compensation law or similar law.

(c) Bodily injury to:

(1) An employee of [insert Principal] arising from, and in the course of, employment by [insert principal]; or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert Principal]. This exclusion applies:

(A) Whether [insert Principal] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert Principal];

(2) Premises that are sold, given away or abandoned by [insert Principal] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert Principal];

(4) Personal property in the care, custody or control of [insert Principal];

(5) That particular part of real property on which [insert Principal] or any contractors or subcontractors working directly or indirectly on behalf of [insert Principal] are performing operations, if the property damage arises out of these operations.

(2) This bond assures that the Principal will satisfy valid third party liability claims, as described in condition 1.

(3) If the Principal fails to satisfy a valid third party liability claim, as described above, the Surety(ies) becomes liable on this bond obligation.

(4) The Surety(ies) shall satisfy a third party liability claim only upon the receipt of one of the following documents:

(a) Certification from the Principal and the third party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Valid Claim

The undersigned, as parties [insert name of Principal] and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Principal's] facility should be paid in the amount of $[ ].

[Signature]
Principal
[Notary] Date

or (b) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

(5) In the event of combination of this bond with another mechanism for liability coverage, this bond will be considered [insert "primary" or "excess"] coverage.

(6) The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond. In no event shall the obligation of the Surety(ies) hereunder exceed the amount of said annual aggregate penal sum, provided that the Surety(ies) furnish(es) notice to the Regional Administrator forthwith of all claims filed and payments made by the Surety(ies) under this bond.

(7) The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and the USEPA Regional Administrator for Region [Region], provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the Principal and the Regional Administrator, as evidenced by the return receipt.

(8) The Principal may terminate this bond by sending written notice to the Surety(ies) and to the EPA Regional Administrator(s) of the EPA Region(s) in which the bonded facility(ies) is (are) located.

(9) The Surety(ies) hereby waive(s) notification of amendments to applicable laws, statutes, rules and regulations and agree(s) that no such amendment shall in any way alleviate its (their) obligation on this bond.

(10) This bond is effective from [insert date] (12:01 a.m., standard time, at the address of the Principal as stated herein) and shall continue in force until terminated as described above.

In Witness Whereof, the Principal and Surety(ies) have executed this Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized

[Signature(s)]
Claimant(s)

[Notary] Date

to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in 40 CFR 261.151(k), as such regulations were constituted on the date this bond was executed.

PRINCIPAL

[Signature(s)]
[Name(s)]
[Title(s)]
[Corporate Seal]

CORPORATE SURETY[IES]

[Name and address]
State of incorporation: _____
Liability Limit: $ _____
[Signature(s)]
[Name(s) and title(s)]
[Corporate seal]
[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]
Bond premium: $ _____

(l)(1) A trust agreement, as specified in § 261.147(j) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Trust Agreement

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator] a [name of State] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert, "incorporated in the State of _____" or "a national bank"], the "trustee."

Whereas, the United States Environmental Protection Agency, "EPA," an agency of the United States Government, has established certain regulations applicable to the Grantor, requiring that an owner or operator must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas, the Grantor has elected to establish a trust to assure all or part of such financial responsibility for the facilities identified herein.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities. This agreement pertains to the facilities identified on attached schedule A [on schedule A, for each facility list the EPA Identification Number (if any issued), name, and address of the facility(ies) and the amount of liability coverage, or portions thereof, if more than one instrument affords combined coverage as demonstrated by this Agreement].

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, hereinafter the "Fund," for the benefit of any and all third parties injured or damaged by [sudden and/or nonsudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of _____-[up to $1 million] per occurrence and [up to $2 million] annual aggregate for sudden accidental occurrences and _____ [up to $3 million] per occurrence and _____-[up to $6 million] annual aggregate for nonsudden occurrences, except that the Fund is not established for the benefit of third parties for the following:

(a) Bodily injury or property damage for which [insert Grantor] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert Grantor] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert Grantor] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert Grantor] arising from, and in the course of, employment by [insert Grantor]; or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert Grantor]. This exclusion applies:

(A) Whether [insert Grantor] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert Grantor];

(2) Premises that are sold, given away or abandoned by [insert Grantor] if the property damage arises out of any part of those premises;

(3) Property loaned to [insert Grantor];

(4) Personal property in the care, custody or control of [insert Grantor];

(5) That particular part of real property on which [insert Grantor] or any contractors or subcontractors working directly or indirectly on behalf of [insert Grantor] are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the Fund shall be considered [insert "primary" or "excess"] coverage.

The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by EPA.

Section 4. Payment for Bodily Injury or Property Damage. The Trustee shall satisfy a third party liability claim by making payments from the Fund only upon receipt of one of the following documents;

(a) Certification from the Grantor and the third party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Valid Claim

The undersigned, as parties [insert Grantor] and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Grantor's] facility or group of facilities should be paid in the amount of $[ ].

[Signatures]

Grantor

[Signatures]

Claimant(s)

(b) A valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstance then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a–2.(a), shall not be acquired or held unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon. Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common commingled, or collective trust fund created by the Trustee in which the fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 81a–1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuations. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the appropriate EPA Regional Administrator a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the EPA Regional Administrator shall constitute a conclusively binding assent by the Grantor barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the EPA Regional Administrator, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the EPA Regional Administrator to the Trustee shall be in writing, signed by the EPA Regional Administrators of the Regions in which the facilities are located, or their designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or EPA hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or EPA, except as provided for herein.

Section 15. Notice of Nonpayment. If a payment for bodily injury or property damage is made under Section 4 of this trust, the Trustee shall notify the Grantor of such payment and the amount(s) thereof within five (5) working days. The Grantor shall, on or before the anniversary date of the establishment of the Fund following such notice, either make payments to the Trustee in amounts sufficient to cause the trust to return to its value immediately prior to the payment of claims under Section 4, or shall provide written proof to the Trustee that other financial assurance for liability coverage has been obtained equaling the amount necessary to return the trust to its value prior to the payment of claims. If the Grantor does not either make payments to the Trustee or provide the Trustee with such proof, the Trustee shall within 10 working days after the anniversary date of the establishment of the Fund provide a written notice of nonpayment to the EPA Regional Administrator.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the appropriate EPA Regional Administrator, or by the Trustee and the appropriate EPA Regional Administrator if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the EPA Regional Administrator, or by the Trustee and the EPA Regional Administrator, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

The Regional Administrator will agree to termination of the Trust when the owner or operator substitutes alternate financial assurance as specified in this section.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the EPA Regional Administrator issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity,

including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of [enter name of State].

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in 40 CFR 261.151(l) as such regulations were constituted on the date first above written.

[Signature of Grantor]

[Title]

Attest:

[Title]

[Seal]

[Signature of Trustee]

Attest:

[Title]

[Seal]

(2) The following is an example of the certification of acknowledgement which must accompany the trust agreement for a trust fund as specified in Sec. 261.147(j) of this chapter. State requirements may differ on the proper

State of _____

County of _____

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/ his name thereto by like order.

[Signature of Notary Public]

(m)(1) A standby trust agreement, as specified in § 261.147(h) of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Standby Trust Agreement

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator] a [name of a State] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert, "incorporated in the State of _____" or "a national bank"], the "trustee."

Whereas the United States Environmental Protection Agency, "EPA," an agency of the United States Government, has established certain regulations applicable to the Grantor, requiring that an owner or operator must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas, the Grantor has elected to establish a standby trust into which the proceeds from a letter of credit may be deposited to assure all or part of such financial responsibility for the facilities identified herein.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term Grantor means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term Trustee means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities. This Agreement pertains to the facilities identified on attached schedule A [on schedule A, for each facility list the EPA Identification Number (if any issued), name, and address of the facility(ies) and the amount of liability coverage, or portions thereof, if more than one instrument affords combined coverage as demonstrated by this Agreement].

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a standby trust fund, hereafter the "Fund," for the benefit of any and all third parties injured or damaged by [sudden and/or nonsudden] accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of _____-[up to $1 million] per occurrence and _____-[up to $2 million] annual aggregate for sudden accidental occurrences and _____-[up to $3 million] per occurrence and _____-[up to $6 million] annual aggregate for nonsudden occurrences, except that the Fund is not established for the benefit of third parties for the following:

(a) Bodily injury or property damage for which [insert Grantor] is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that [insert Grantor] would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of [insert Grantor] under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of [insert Grantor] arising from, and in the course of, employment by [insert Grantor]; or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by [insert Grantor].

This exclusion applies:

(A) Whether [insert Grantor] may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who must pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by [insert Grantor];

(2) Premises that are sold, given away or abandoned by [insert Grantor] if the property damage arises out of any part of those premises;

(3) Property loaned by [insert Grantor];

(4) Personal property in the care, custody or control of [insert Grantor];

(5) That particular part of real property on which [insert Grantor] or any contractors or subcontractors working directly or indirectly on behalf of [insert Grantor] are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the Fund shall be considered [insert "primary" or "excess"] coverage.

The Fund is established initially as consisting of the proceeds of the letter of credit deposited into the Fund. Such proceeds and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by EPA.

Section 4. Payment for Bodily Injury or Property Damage. The Trustee shall satisfy a third party liability claim by drawing on the letter of credit described in Schedule B and by making payments from the Fund only upon receipt of one of the following documents:

(a) Certification from the Grantor and the third party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Certification of Valid Claim

The undersigned, as parties [insert Grantor] and [insert name and address of third party claimant(s)], hereby certify that the claim of bodily injury and/or property damage caused by a [sudden or nonsudden] accidental occurrence arising from operating [Grantor's] facility should be paid in the amount of $[ ]

[Signature] _____

Grantor

[Signatures] _____

Claimant(s) _____

(b) A valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of the proceeds from the letter of credit drawn upon by the Trustee in accordance with the requirements of 40 CFR 261.151(k) and Section 4 of this Agreement.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a–2(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or a State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a–1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve Bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements to the Trustee shall be paid from the Fund.

Section 10. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 11. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 12. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the EPA Regional Administrator and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 13. Instructions to the Trustee. All orders, requests, certifications of valid claims, and instructions to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the EPA Regional Administrator hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or EPA, except as provided for herein.

Section 14. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the EPA Regional Administrator, or by the Trustee and the EPA Regional Administrator if the Grantor ceases to exist.

Section 15. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 14, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the EPA Regional Administrator, or by the Trustee and the EPA Regional Administrator, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be paid to the Grantor.

The Regional Administrator will agree to termination of the Trust when the owner or operator substitutes alternative financial assurance as specified in this section.

Section 16. Immunity and indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor and the EPA Regional Administrator issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 17. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of [enter name of State].

Section 18. Interpretation. As used in this Agreement, words in the singular include the

plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation of the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in 40 CFR 261.151(m) as such regulations were constituted on the date first above written.

[Signature of Grantor]

[Title]

Attest:

[Title]

[Seal]

[Signature of Trustee]

Attest:

[Title]

[Seal]

(2) The following is an example of the certification of acknowledgement which must accompany the trust agreement for a standby trust fund as specified in section 261.147(h) of this chapter. State requirements may differ on the proper content of this acknowledgement.

State of _____

County of _____

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/ his name thereto by like order.

[Signature of Notary Public]

PART 270—EPA ADMINISTERED PERMIT PROGRAMS: THE HAZARDOUS WASTE PERMIT PROGRAM

■ 13. The authority citation for part 270 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912, 6924, 6925, 6927, 6939 and 6974.

Subpart D—Changes to Permits

■ 14. In § 270.42, Appendix I is amended to add a new A. 9 and A. 10 to read as follows:

§ 270.42 Permit modification at the request of the permittee.

* * * * *

Appendix I to § 270.42—Classification of permit modification

Modifications	Class
A. General Permit Provisions.	
* * * * * * *	
9. Changes to remove permit conditions applicable to a unit excluded under the provisions of § 261.4.	[1] 1
10. Changes in the expiration date of a permit issued to a facility at which all units are excluded under the provisions of § 261.4.	[1] 1
* * * * * * *	

[1] Class 1 modifications requiring prior Agency approval.

[FR Doc. E8–24399 Filed 10–29–08; 8:45 am]

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Monday,
December 1, 2008

Part II

Environmental Protection Agency

40 CFR Parts 261 and 262
Standards Applicable to Generators of Hazardous Waste; Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material at Laboratories Owned by Colleges and Universities and Other Eligible Academic Entities Formally Affiliated With Colleges and Universities; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 261 and 262

[EPA–HQ–RCRA–2003–0012; FRL–8743–9]

RIN 2050–AG18

Standards Applicable to Generators of Hazardous Waste; Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material at Laboratories Owned by Colleges and Universities and Other Eligible Academic Entities Formally Affiliated With Colleges and Universities

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA or the Agency) is finalizing an alternative set of generator requirements applicable to laboratories owned by eligible academic entities, as defined in this final rule. The rule provides a flexible and protective set of regulations that address the specific nature of hazardous waste generation and accumulation in laboratories at colleges and universities, as well as other eligible academic entities formally affiliated with colleges and universities. This final rule is optional and colleges and universities and other eligible academic entities formally affiliated with a college or university have the choice of managing their hazardous wastes in accordance with the new alternative regulations as set forth in this final regulation or remaining subject to the existing generator regulations.

DATES: This final rule is effective December 31, 2008.

ADDRESSES: EPA has established a docket for this action under Docket ID No. RCRA–2003–0012. All documents in the docket are listed on the *http://www.regulations.gov* Web site. Although listed in the index, some information is not publicly available, i.e., Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through *http://www.regulations.gov* or in hard copy at the EPA RCRA Docket, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the RCRA Docket is (202) 566–0270.

FOR FURTHER INFORMATION CONTACT: For further information regarding specific aspects of this notice, contact Kristin Fitzgerald, Office of Solid Waste, (703) 308–8286, *Fitzgerald.Kristin@epa.gov;* Patricia Mercer, Office of Solid Waste, (703) 308–8408, *Mercer.Patricia@epa.gov;* or Jessica Biegelson, Office of Solid Waste, (703) 308–0026, *Biegelson.Jessica@epa.gov.* Mail inquiries may be directed to the Office of Solid Waste, (5304P), 1200 Pennsylvania Avenue NW., Washington, DC 20460.

SUPPLEMENTARY INFORMATION:

I. General Information

A. Entities Potentially Affected by This Rule

The rule establishes a new Subpart K within 40 CFR part 262. Entities potentially affected by this final action are colleges and universities; non-profit research institutes that are either owned by or have a formal written affiliation agreement with a college or university; and teaching hospitals that are either owned by or have a formal written affiliation agreement with a college or university, that generate hazardous waste in laboratories. Today's final rule refers to these collectively as "eligible academic entities." This final action is optional for eligible academic entities. That is, eligible academic entities that are large quantity generators (LQGs), small quantity generators (SQGs), or conditionally exempt small quantity generators (CESQGs) may choose to have their laboratories be subject to 40 CFR part 262, Subpart K in lieu of the existing generator regulations. In States authorized to implement the RCRA program, Subpart K would only be available as an option once it has been adopted by the State in which the eligible academic entity is located.

Only eligible academic entities can participate under Subpart K for the laboratories they own. The following are examples of entities that are not eligible because they do not satisfy the definition of "eligible academic entity:" government facilities; commercial research and development (R&D) facilities; non-profit research institutes that are not owned by nor have a formal written affiliation agreement with a college or university; non-teaching hospitals; and teaching hospitals that are not owned by nor have a formal written affiliation agreement with a college or university. To determine whether the laboratories owned by an eligible academic entity are covered by this action, interested parties should examine 40 CFR part 262, Subpart K carefully. If there are questions regarding the applicability of the rule to a particular entity, consult your State, EPA Regional office, or the person(s) listed in the section of this preamble entitled, **FOR FURTHER INFORMATION CONTACT.**

NAICS Codes of Entities Potentially Affected by This Final Rule

NAICS codes	Description of NAICS code
Colleges & Universities	
6112, 61121, 611210	Junior Colleges.
6113, 61131, 611310	Colleges, Universities, and Professional Schools.
6115, 61151	Technical and Trade Schools.
611519	Other Technical and Trade Schools.
61161, 611610	Fine Arts Schools.
Teaching Hospitals	
54194, 541940	Veterinary Services (Animal Hospitals).
622	Hospitals.
6221, 62211, 622110	General Medical and Surgical Hospitals.
6222, 62221, 622210	Psychiatric and Substance Abuse Hospitals.
6223, 62231, 622310	Specialty (except Psychiatric and Substance Abuse) Hospitals.

NAICS CODES OF ENTITIES POTENTIALLY AFFECTED BY THIS FINAL RULE—Continued

NAICS codes	Description of NAICS code
Non-profit Research Institutes	
5417, 54171, 541710	Research and Development in the Physical, Engineering, and Life Sciences.
54172, 541720	Research and Development in the Social Sciences and Humanities.

LIST OF ACRONYMS

APA	Administrative Procedures Act.
ACE	American Council on Education.
AAMC	Association of American Medical Colleges.
AIRI	Association of Independent Research Institutes.
BR	Biennial Report.
BMPs	Best Management Practices.
CAA	Central Accumulation Area.
CAS	Chemical Abstract Service.
CESQG	Conditionally Exempt Small Quantity Generator.
CFR	Code of Federal Regulations.
C2E2	Campus Consortium for Environmental Excellence.
CSHEMA	Campus Safety Health and Environmental Management Association.
EH&S	Environmental Health and Safety.
HHMI	Howard Hughes Medical Institute.
HSWA	Hazardous and Solid Waste Amendments of 1984.
ICR	Information Collection Request.
LDR	Land Disposal Restrictions.
LMP	Laboratory Management Plan.
LQG	Large Quantity Generator.
NACUBO	National Association of College and University Business Officers.
NTTAA	National Technology Transfer Advancement Act.
OMB	Office of Management and Budget.
OSHA	Occupational Safety and Health Administration.
PRA	Paperwork Reduction Act.
Project XL	eXcellence and Leadership.
R&D	Research and Development.
RCRA	Resource Conservation and Recovery Act.
RFA	Regulatory Flexibility Act.
SAA	Satellite Accumulation Area.
SQG	Small Quantity Generator.
SWDA	Solid Waste Disposal Act.
TSDF	Treatment, Storage or Disposal Facility.
UMRA	Unfunded Mandates Reform Act.

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J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
K. Congressional Review Act

I. Statutory Authority

These regulations are promulgated under the authority of §§ 2002, 3001, 3002, and 3004 of the Solid Waste Disposal Act (SWDA) of 1970, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), 42 U.S.C. 6921, 6922, 6923, and 6924.

II. Background

A. History and Summary of the Proposed Rule

This rulemaking is a culmination of many years of investigation and participation by EPA in efforts designed to better understand the challenges that the academic community faces when managing hazardous wastes generated in laboratories under the hazardous waste regulations. As discussed at length in the preamble to the proposed rule (see 71 FR 29715), these efforts include two Reports to Congress; a project under EPA's eXcellence and Leadership program (Project XL) with three colleges and universities in New England; a pilot project led by the Howard Hughes Medical Institute (HHMI) to develop and implement a performance-based approach to the management of laboratory waste at ten colleges and universities; and a public meeting on June 18, 2003, sponsored by EPA to discuss the management of hazardous waste in research and/or academic laboratories. (See the announcement of the public meeting at 68 FR 33121, June 3, 2003. The comments submitted to EPA in response to the public meeting are included in the docket for today's rulemaking.)

As a result of these and other efforts, on May 23, 2006, EPA proposed alternative generator requirements applicable to college and university laboratories that generate hazardous waste (71 FR 29712[1]). This preamble will refer to the alternative generator requirements as "Subpart K," because it establishes a new Subpart K of 40 CFR part 262. The proposed rule provided a flexible and protective set of regulations that addressed the specific nature of hazardous waste generation and accumulation in college and university laboratories. The proposed rule was optional and colleges and universities had the choice of managing their hazardous wastes in accordance with the proposed alternative Subpart K requirements or remaining subject to the existing generator regulations. Although the applicability of the proposed rule was limited to colleges and universities, the Agency requested comment on whether it would be appropriate to expand the applicability of the final rule to other organizations that also have research or teaching laboratories. In addition, since the Agency assumed that CESQGs would not want to be subject to the increased burden of Subpart K, the proposed rule was limited to colleges and universities that are SQGs and LQGs. However, we solicited comments on whether CESQGs should be allowed to be subject to Subpart K.

Throughout the years of working with academic institutions, EPA has heard consistently that the greatest challenge that academic institutions face in managing their laboratory hazardous wastes under the existing generator regulations is making the RCRA hazardous waste determination at the point of generation pursuant to 40 CFR 262.11 (i.e., determining whether their solid waste is hazardous waste and assigning the proper hazardous waste code(s) in the laboratory at the time the hazardous waste is generated). This is largely because the individuals in the laboratory generating the hazardous waste and other materials are students, who are often not trained to make a hazardous waste determination. We, therefore, proposed to remove the responsibility for the hazardous waste determination from the students in the laboratory and place it in the hands of trained environmental health and safety (EH&S) professionals. While the hazardous waste remains in the laboratory, we proposed that it would be referred to as "unwanted material," since the hazardous waste determination had not yet been made and some portion of the unwanted materials may be unused and therefore still usable, or may not be hazardous waste when discarded. We proposed that while in the laboratory, the P-listed commercial chemical products that were listed for reactivity would be referred to as "reactive acutely hazardous unwanted materials." In lieu of making the hazardous waste determination at the point of generation, the Agency proposed that the hazardous waste determination must be made prior to removing the unwanted materials from the laboratory (but not at the time the unwanted materials are first generated), or within four calendar days of arriving at an on-site central accumulation area (CAA) or on-site interim status or permitted treatment, storage, or disposal facility (TSDF).

The Agency also proposed that the unwanted materials would be regulated in the laboratory by performance-based container labeling and container management standards. These performance-based standards for the management of unwanted materials in the laboratory were coupled with a requirement for a Laboratory Management Plan (LMP). This combination provided flexibility by allowing the college or university to specify in its LMP how it would comply with the performance-based standards. The Agency co-proposed two options regarding the enforceability of the contents of the individual LMPs that colleges and universities developed. One option was that the contents of the LMP would be enforceable; the second option was that the contents of the LMP would not be enforceable.

Additionally, we proposed that all containers of unwanted materials would have to be removed from the laboratory on a regular basis, not to exceed six months. However, if a laboratory accumulated more than 55 gallons of unwanted material before the regularly scheduled removal, then all containers of unwanted material would have to be removed from the laboratory within ten calendar days. Likewise, if a laboratory accumulated more than 1 quart of reactive acutely hazardous unwanted material prior to the regularly scheduled removal, then the reactive acutely hazardous unwanted materials would have to be removed from the laboratory within ten calendar days.

Finally, to address the problem of laboratories keeping old, unneeded, or expired chemicals (i.e., "legacy chemicals"), the Agency proposed regulatory provisions that would give colleges and universities incentives for conducting laboratory clean-outs: a

[1] Please see page 29716 of the preamble to the proposed rule for information on other EPA efforts to improve hazardous waste management at colleges and universities through compliance assistance centers and more.

laboratory clean-out could occur over a 30 day period, even if the 55-gallon limit of unwanted material was exceeded; and the hazardous waste generated during a laboratory clean-out would not have to be counted toward the college or university's generator status. However, we proposed that colleges and universities could only utilize the clean-out incentives once per 12 months per laboratory.

The comment period for the proposed rule was originally due to close on August 21, 2006. However, EPA received a request from the National Association of College and University Business Officers (NACUBO), on behalf of the American Council on Education (ACE), the Campus Safety Health and Environmental Management Association (CSHEMA), and the Campus Consortium for Environmental Excellence (C2E2) to extend the comment period for 45 days. On August 21, 2006, EPA extended the public comment period by 30 days (see 71 FR 48500). The comment period for the proposed rule closed on September 20, 2006.

The Agency received 111 comments on the proposed rule. Approximately two-thirds of the comments were from colleges and universities, or trade groups that represent colleges and universities. In general, colleges and universities were very supportive of the Agency's effort to address the challenges they face in complying with the RCRA hazardous waste regulations in their laboratories. However, many of these commenters also suggested specific changes to the rule. Thirteen States also submitted comments. Some States expressed support for the rule, while others were very skeptical of the need for the rule. Most of the rest of the comments were from organizations that were not eligible to participate in Subpart K, as proposed. These commenters, which included non-profit research organizations, commercial companies that conduct research and manufacture pharmaceuticals and other products, as well as several Federal governmental agencies, requested that the Agency expand the scope of the final rule to allow them to be subject to Subpart K. The more significant comments on the proposal are addressed later in this preamble, in section III, but all are addressed in the Response to Comments Document for today's final rule found in the docket at *http://www.regulations.gov* (EPA–HQ–RCRA–2003–0012).

B. Rationale of the Final Rule

In the proposal, the Agency discussed how the hazardous waste generation and management practices at college and university laboratories differ from both industrial production and industrial laboratory operations in several meaningful ways (see 71 FR 29714). These differences, which were confirmed by many of the commenters, provide the rationale for today's final rule.

Specifically, the Agency identified four primary differences between laboratory operations at colleges and universities and typical industrial production facilities. First, laboratories at colleges and universities have a large number of points of generation (i.e., points where waste is originally generated), such as multiple laboratory benchtops within a single laboratory and laboratories located at several areas on a single campus. Second, these laboratories tend to generate relatively small volumes of each hazardous waste at each of these points of generation. Third, the hazardous wastes generated in these laboratories tend to vary over time, as areas of research change. In contrast, industrial generators tend to have a different hazardous waste generation pattern; they tend to generate a smaller number of predictable wastestreams in large quantities at relatively few generation points. Fourth, and of particular note, is that most individuals involved in hazardous waste generation activities at college and university laboratories are students. Students are inherently transient, which makes it more difficult to train them. This fourth difference sets college and university laboratories apart not only from typical industrial production facilities, but also from non-academic, government and commercial R&D laboratories. At both industrial production facilities and non-college or university, commercial laboratories, employees who generate hazardous waste are professionally trained in managing hazardous wastes and are held accountable due to their employee status.

The proposal addressed challenges faced by colleges and universities that result from these differences, and proposed to establish a new, optional Subpart K under 40 CFR part 262 for making the hazardous waste determination, and accumulating and removing unwanted materials from laboratories at colleges and universities. Comments from colleges and universities and their trade associations confirm EPA's conclusion that differences in hazardous waste generation and management activities at laboratories at academic institutions warrant this alternative set of requirements. Because of these differences, the alternative generator requirements found in Subpart K are directed at the management of unwanted materials in the laboratory and not in other areas on the same site where hazardous waste may be generated or managed.

Therefore, today EPA is finalizing an alternative set of generator regulations for the management of hazardous waste generated in laboratories at specific types of academic facilities (i.e., eligible academic entities). Based on comments received on the proposed rule, as well as additional analysis, the Agency is finalizing the rule with some changes from the proposal. The Agency believes that today's final rule is better suited to the circumstances specific to these laboratories, and that it promotes environmental protection and public health through safer management of laboratory hazardous wastes.

C. Summary of the Final Rule

This section provides a brief overview of today's final rule and describes the major ways in which today's rule differs from the proposal. For a detailed description and justification of the changes in today's final rule, see Section III of today's preamble.

The final rule establishes a set of alternative generator regulations for laboratories owned by eligible academic entities under a new Subpart K in 40 CFR part 262. Eligible academic entities may choose to be subject to Subpart K in lieu of the existing generator requirements for the management of the hazardous waste generated in the laboratories that they own. Laboratories operating under Subpart K must comply with the performance-based standards, while the unwanted materials remain in the laboratory. The eligible academic entity also must develop an LMP that reasonably addresses the nine elements that are required to be part of the LMP and that describes how the eligible academic entity will comply with the performance-based standards. The final rule also provides incentives for eligible academic entities to conduct laboratory clean-outs of old, unneeded chemicals.

One of the major changes from the proposed rule found in today's final action is the Agency's decision to expand the applicability of the rule. Specifically, the scope of the final rule includes colleges and universities, non-profit research institutes that are owned by or have a formal written affiliation agreement with a college or university, and teaching hospitals that are owned by or have a formal written affiliation agreement with a college or university.

In addition, although the proposed rule specifically precluded laboratories

at colleges or universities that are CESQGs from choosing to be subject to Subpart K, the final rule allows laboratories that are owned by eligible academic entities that are CESQGs, SQGs or LQGs to operate under Subpart K. We also have modified the definition of laboratory, so that additional areas within an eligible academic entity, such as photo laboratories, field laboratories, and art studios are considered laboratories. In addition, chemical stockrooms and preparatory laboratories and other areas that provide a support function to research and teaching laboratories, are allowed to operate under Subpart K.

EPA recognizes that the details of hazardous waste management operations vary widely among campuses and some eligible academic entities have developed programs consistent with the existing generator regulations that have proven to be successful. Thus, these institutions may be reluctant to change from the generator regulations under which they are currently operating. Therefore, today's final rule, like the proposal, remains an optional, alternative set of requirements to the existing generator regulations and eligible academic entities may continue to manage their laboratory hazardous wastes under the current hazardous waste generator regulations. Eligible academic entities that would like the additional flexibility of today's rule may choose to manage their laboratory hazardous wastes according to the set of generator regulations we are finalizing today.

Public comments received on the proposed rule confirmed that the primary difficulty with managing laboratory hazardous wastes under current regulations is making the hazardous waste determination at the point of generation. As with the proposal, the final rule addresses this challenge by providing flexibility with regard to where and when the hazardous waste determination can be made (i.e., in the laboratory before it is removed from the laboratory, or within four calendar days of arriving at an on-site CAA, or on-site TSDF), provided all unwanted materials (as defined by the rule) that are generated in the laboratory are managed according to the requirements promulgated in today's rule.

EPA continues to stress that today's final rule does not alter or move the point of generation of any hazardous waste, but merely allows the hazardous waste determination to be made at an on-site CAA or on-site TSDF; or in the laboratory, but at a point in time after the initial generation of the waste. The point of generation of the hazardous waste continues to be the location and time at which the hazardous waste is first generated. Therefore, the applicability of the land disposal restrictions (LDRs) to hazardous wastes generated in the laboratory are not affected by today's rule and continue to "attach" at the point of generation of the hazardous waste. In addition, RCRA's statutory inspection and enforcement authorities continue to apply in the laboratory, even though under Subpart K the hazardous wastes are referred to as "unwanted materials," while they remain in the laboratory.

Today's final rule maintains the proposed requirement that unwanted materials must be removed from the laboratory primarily on a time basis, and secondarily on a volume basis. That is, we are requiring that eligible academic entities conduct removals of unwanted materials from the laboratory on a regular basis, not to exceed six months, although we have included some additional flexibility. If a laboratory accumulates more than 55 gallons of unwanted material (including reactive acutely hazardous unwanted material) before the regularly scheduled removal, then all unwanted materials (including reactive acutely hazardous unwanted material) must be removed within ten calendar days. And if a laboratory accumulates more than 1 quart of reactive acutely hazardous unwanted material before the regularly scheduled removal, then the reactive acutely hazardous unwanted material must be removed from the laboratory within ten calendar days.

Another key issue identified by the academic community that we addressed in the proposal focused on incentives for discarding unneeded or expired chemicals that can accumulate in college and university laboratories and chemical store rooms. The academic community contends that the existing generator regulations result in discouraging laboratory clean-outs (because the increased quantities of hazardous waste generated can change the eligible academic entity's generator status) and therefore, laboratories often hold on to expired chemicals, some of which become dangerous over time. EPA believes that revising the regulations to encourage laboratories to remove legacy chemicals will result in greater protection of human health and the environment, as well as increased environmental compliance. Thus, an important part of this final rule is the laboratory clean-out provisions: once per 12 months per laboratory, a laboratory will have 30 days to conduct a clean-out and will not have to count the hazardous waste that consists of unused commercial chemical products (either listed or characteristic) generated during those 30 days towards the eligible academic entity's generator status.

As in the proposed rule, today's final rule pairs a performance-based approach for management of unwanted materials in the laboratory with a requirement for the eligible academic entity to develop and implement an LMP. We believe that a performance-based approach will allow eligible academic entities greater flexibility by allowing them to tailor their laboratory waste management program with respect to container labeling, container management, and training, while ensuring better environmental results. Like the proposal, under today's final rule, the LMP must describe how an eligible academic entity will meet the required provisions (i.e., the performance-based standards) by reasonably addressing all the required elements. However, unlike the proposal, the LMP under today's final rule must include two distinct parts (Parts I and II). The eligible academic entity must comply with the specific contents it includes in Part I of its LMP, while Part II will comprise the institution's best management practices (BMPs). Thus, EPA and authorized States may take enforcement action against an institution if it fails to meet the specifics of Part I of its LMP. However, EPA and authorized States may not take enforcement action if an institution's actions vary from the specific procedures contained in Part II of its LMP, but may take enforcement action if the institution fails to reasonably address all the required elements in Part II of its LMP.

In summary, the Agency believes that today's rule will lead to the safe management of unwanted materials and greater environmental protection by requiring that the RCRA hazardous waste determination be performed by trained personnel, rather than by untrained students. We also believe that today's final rule will promote the protection of human health and the environment by ensuring that all unwanted materials which may, in whole or in part, be RCRA hazardous wastes, are safely managed while in the laboratory prior to the time that the hazardous waste determination is made. In addition, EPA believes that the requirement to develop and implement an LMP will improve the coordination and integration of hazardous waste management procedures and enhance environmental awareness among researchers and students at eligible

academic entities, leading to a transfer of good environmental management practices to the larger community.

D. Effective Date of the Final Rule

This final rule is effective on December 31, 2008 section 3010(b) of RCRA allows EPA to promulgate a rule with an effective date shorter than six months where the Administrator finds that the regulated community does not need additional time to come into compliance with the rule. This rule is optional for those eligible academic entities that choose to follow it. For those entities, this rule provides an alternative set of requirements that are intended to provide them flexibility from current applicable regulations. Therefore, the Agency finds that the regulatory community does not need six months to come into compliance.

III. Detailed Discussion of the Final Rule

Today, EPA is publishing a final rule establishing alternative regulations (40 CFR part 262, Subpart K) for the management of unwanted materials generated in laboratories in eligible academic entities. This section discusses in detail the major features of the final rule and the rationale for the changes made from the proposal to today's final rule.

In today's final rule and preamble, we introduce and use several new terms. We are including here a brief description of how we will use the terminology in today's preamble. First, we will use the terms "choose to become subject to," "participate under," "operate under" and "opt in" to Subpart K interchangeably. Second, the regulations require that in order to be eligible to opt into Subpart K, a non-profit research institute must be owned by or have a formal written affiliation agreement with a college or university, and a teaching hospital must be owned by or have a formal written affiliation agreement with a college and university. In the preamble, we will generally refer to eligible academic entities other than colleges and universities as non-profit research institutes and teaching hospitals that are owned by or formally affiliated with a college or university.

Third, many eligible academic entities have multiple EPA Identification Numbers for different sections of the same "campus," typically because the sections of the eligible academic entity are separated by public roads. When referring to the individual sections of an eligible academic entity, we will use the term "site" or "EPA Identification Number." When referring collectively to all the sections of the eligible academic entity, we will use the term, "campus," or "eligible academic entity," or "institution." As an example, when an eligible academic entity opts into Subpart K for its laboratories, it must notify the Agency for each EPA Identification Number on a campus that is opting in.

A. Scope of Eligible Academic Entities Covered Under the Final Rule

EPA proposed that this alternative set of generator regulations would apply only to laboratories at colleges and universities. As discussed in section II.A of today's preamble, EPA has had a long history of interaction with colleges and universities. From these interactions, the Agency has learned about the unique hazardous waste generation pattern in teaching and research laboratories at colleges and universities. However, EPA recognized that there may be additional types of facilities with laboratories that may fit the rationale for Subpart K. Thus, while the proposal was limited to colleges and universities, EPA solicited comment on whether to expand the scope of the final rule to other institutions that fit the rationale of Subpart K.

Public comments from trade groups, such as the Association of American Medical Colleges (AAMC), the Association of Independent Research Institutes (AIRI), the Campus Safety Health and Environmental Management Association (CSHEMA), and individual comments submitted by non-profit research institutes, teaching hospitals, private research and development companies, governmental research laboratories, and colleges and universities with teaching hospitals and/or non-profit research institutes all asserted that their research laboratories fit the hazardous waste generation pattern rationale of today's rule. That is, these commenters assert that given the nature of research, research laboratories share the same hazardous waste generation patterns, regardless of what type of institution they are found in. In addition, EPA has conducted site visits in various research laboratories at teaching hospitals and private R&D companies, among others, and has seen similar hazardous waste generation patterns and activities of these laboratories.

Based on the comments EPA received and additional research by EPA regarding the presence of students in laboratories at institutions other than colleges and universities, we have expanded the scope of the final rule to include specific additional entities that fit all aspects of the rationale for this rule. This rationale includes not only a hazardous waste generation pattern that is similar to that found at college and university laboratories, but also a significant student population. EPA did not expand the scope of the final rule to include certain entities because they did not fit all aspects of the rationale for this rule. Therefore, today's final rule allows colleges and universities, teaching hospitals that are owned by or have a formal written affiliation agreement with a college or university, and non-profit research institutes that are owned by or have a formal written affiliation agreement with a college or university, to opt into Subpart K. This expansion includes laboratories at facilities that we and many commenters believe are closely integrated with laboratories at colleges and universities. Collectively, we are calling the entities that are eligible to opt into today's final rule, "eligible academic entities." Details on these entities are contained in the following sections. (For information regarding changes to the definition of laboratory, see section III.B.2 and § 262.200.)

1. Hazardous Waste Generation Data

In the preamble to the proposed rule, we stated that 9% of the hazardous waste generated at college and university LQGs was from laboratories. We received several comments from colleges and universities asserting that we erred in our estimates and that at their campuses, laboratory hazardous waste constituted a much higher percentage of their total hazardous waste. The Agency sent follow-up letters to several commenters requesting additional information in support of their comments. In response to our inquiries, many of the commenters supplied detailed information about their hazardous waste generation and one commenter provided a detailed analysis of our methodology for determining the percentage of laboratory hazardous waste, including specific suggestions on how to improve the methodology for the final rule. The follow-up letters and the responses are all included in the docket for today's rule.

As a result of these comments, EPA has significantly revised the methodology used in the proposal to determine the total quantity of hazardous waste and laboratory hazardous waste. Specifically, in the proposal, we used key-word searches of the description field on Biennial Report (BR) forms to identify laboratory hazardous waste as a percent of the total hazardous waste generated. Our revised methodology uses three source codes

from the BR to identify which hazardous wastes are from laboratories:

(1) G11—Discarding off-specification or out-of-date chemicals or products (unused chemicals or products—corresponds to P and U hazardous waste codes);

(2) G22—Laboratory analytical wastes (used chemicals from laboratory operations), and

(3) G09—Other production or service-related processes from which the waste is a direct outflow or result. (Because hazardous waste from the source code G09 could also be generated in non-laboratory operations, these wastes were only considered laboratory wastes if the waste form codes indicated it was shipped in a lab pack (i.e., waste form codes W001 or W004)).

Additional laboratory wastes were identified using key-word searches of the description field. This revised method resulted in a much higher estimate for laboratory hazardous waste as a percent of total hazardous waste at colleges and universities—73% under the revised methodology, compared to 9% under the original methodology used in the proposed rule. This revised methodology was used to calculate the amount of laboratory hazardous waste generated as a percent of the total hazardous waste generated for colleges and universities, as well as for other types of facilities with laboratories that we considered including in today's final rule: teaching hospitals, non-profit research institutes, governmental research laboratories, and commercial R&D laboratories. For a full explanation of the methodology used to determine the amounts of total hazardous waste and laboratory hazardous waste generated at colleges and universities, teaching hospitals, and non-profit research institutes, see the memo entitled, Lab Rule Data Analyses, from ICF International to Patricia Mercer, May 1, 2008; and for hazardous waste information for LQG government research laboratories and LQG commercial R&D laboratories see the memo entitled, Final Analyses of College and University Laboratory Hazardous Waste, from ICF International to Patricia Mercer, August 17, 2007. Copies of both memos are in today's docket.

Below is a table of the hazardous waste data for eligible academic entities (i.e., those entities eligible to opt into Subpart K) that are LQGs. Using the revised methodology, we now estimate that for college and university LQGs, 73% of their total hazardous waste is from laboratories. The percent of hazardous waste coming from laboratories at teaching hospitals and non-profit research institutes is even higher—81% and 92%, respectively. Further, with all three types of eligible academic entities, nearly all LQGs generate laboratory hazardous waste.

	Colleges and universities	Teaching hospitals [1]	Non-profit research institutes [2]
# LQGs generating laboratory hazardous waste	286	104	8
# LQGs generating hazardous waste	293	109	8
% that generate laboratory hazardous waste	98	95	100
Tons of laboratory hazardous waste	6,530	1,712	119
Tons of all hazardous waste [3]	8,951	2,119	130
% of hazardous waste that is laboratory hazardous waste	73	81	92

[1] To be eligible to opt into Subpart K, a teaching hospital must be owned by or have a formal written affiliation agreement with a college or university

[2] To be eligible to opt into Subpart K, a non-profit research institute must be owned by or have a formal written affiliation agreement with a college or university

[3] Excludes remediation wastes because remediation wastes are not regularly generated hazardous wastes, but rather are hazardous wastes generated only when a clean-up or remediation project takes place.

As discussed above, based on EPA's observations, as well as comments that we have received and given the nature of teaching and research, activities conducted at teaching and research laboratories in colleges, universities, teaching hospitals, and non-profit research institutes are comparable and therefore share similar hazardous waste generation patterns. EPA identified challenges associated with the specific hazardous waste generation patterns, such as difficulty making hazardous waste determinations with a large variety of wastestreams. These difficulties, along with the difficulties associated with the presence of a significant student population, form the basis of this rule. Even at proposal, when we estimated that 9% of a college or university's hazardous waste was generated in the laboratory, we believed that these challenges were sufficient to warrant the development of Subpart K. With the revised estimates indicating that the percentage of hazardous waste generated in laboratories by eligible academic entities being much higher, these specific challenges are shown to be even more pervasive and support the need for the flexibility offered by Subpart K for these particular entities.

Given that these types of organizations with research and teaching laboratories share similar hazardous waste generation patterns, we focused on the extent to which these entities had a significant student presence, which is a very important basis of today's rule. Because students are inherently transient, and generally have less accountability than professionals employed in laboratories, it is unlikely that they will make a proper hazardous waste determination which requires detailed knowledge of RCRA. The following discussion of which entities are and are not eligible to opt into today's rule focuses on whether there is a significant student presence. However, there are limited data readily available about the number of students in laboratories even at colleges and universities much less for entities, such as teaching hospitals and non-profit research institutes. Thus, we used certain factors as indications that the organization did indeed have students in the laboratories. Examples of factors indicating student presence include programs for high school, undergraduate, or graduate students to conduct laboratory research, presence of medical residents/interns, co-sponsored degree programs with colleges or universities, or classes offered independent of the college or university.

2. Laboratories Owned by Teaching Hospitals

In the proposal, EPA specifically requested comment on whether laboratories in hospitals affiliated with colleges or universities should be included in the final rule. Previously, information about hospital laboratories led EPA to believe that their wastestreams are fairly routine and they

did not have the same challenges faced by college or university laboratories in training their workers. Through comments, EPA learned that many teaching hospitals owned by or formally affiliated with a college or university have research and teaching laboratories in addition to diagnostic laboratories dedicated to patient care. As stated earlier, research laboratories at teaching hospitals have similar hazardous waste generation patterns as research laboratories on a college or university campus. In addition, such teaching hospitals have students working in the laboratories to learn how to run various tests, how to operate equipment, or to conduct research with professors.

In fact, one commenter asserted that, "these types of laboratories [laboratories at college or university affiliated hospitals and other similar locations such as dental colleges, clinics and associated laboratories] are very similar to instructional and research laboratories. They are used by a large number of students; they are used for instructional and research purposes; while some processes are static and predictable, others are not; large numbers of different wastestreams are produced, but in relatively small quantities." Another commenter wrote, "Research labs in a hospital are essentially the same as a research lab in a college or university and have similar waste generation patterns."

Based on these comments, EPA conducted additional research into the types of laboratories that are present at teaching hospitals that are owned by or formally affiliated with a college or university. In particular, EPA identified three types of laboratories: (1) Clinical diagnostic laboratories that conduct typical laboratory tests related to patient care, (2) applied research laboratories that conduct clinical trials and (3) research laboratories that conduct basic medical research. While strictly speaking, clinical diagnostic laboratories may not exhibit the hazardous waste generation pattern identified in the rationale for this rule, we found that the setup in teaching hospitals makes it difficult to draw hard distinctions between the various types of laboratories. That is, each teaching hospital divides its laboratory space differently and oftentimes a single laboratory serves multiple functions, such as both diagnostic testing and research. Furthermore, in some cases, laboratory personnel perform multiple functions within a laboratory and are involved with both diagnostic and research activities. Thus, EPA has determined that it would be extremely difficult to implement a rule that made a distinction between the various types of laboratories at such teaching hospitals.

The Agency also analyzed data from the BR which are sent to the Agency every other year by LQGs and housed in EPA's RCRAInfo database, to find out more about the universe of non-teaching and teaching hospitals owned by or formally affiliated with a college or university and their hazardous waste generation patterns. Notably, one of the main differences between the hazardous waste generation patterns at LQG teaching hospitals owned by or formally affiliated with a college or university and non-teaching hospitals is in the amount of laboratory hazardous waste as a percentage of the total amount of hazardous waste generated. Specifically, teaching hospitals showed approximately 80% of the total quantity of hazardous waste generated coming from laboratories, while non-teaching hospitals only had 13% of the total quantity of hazardous waste generated coming from laboratories. EPA attributes this disparity to be the result of the greater amount of research generally occurring in teaching hospitals owned by or formally affiliated with a college or university.

In terms of the transient students, EPA has learned from its research that teaching hospitals instruct a variety of students—interns, residents, nursing students, laboratory technicians, and more, in the hospital. Instruction of these students includes work in the laboratories to learn about the processes and tests conducted there, introducing similar difficulties as those encountered at colleges and universities in teaching and training transient students and making the hazardous waste determination. In fact, one commenter asserted that, "the amount of time a student spends at a teaching hospital is comparable to that of a graduate student in another laboratory discipline." Also, medical research at a college and university oftentimes is shared between the college and university laboratories and teaching hospital laboratories. One commenter pointed out that professors, graduate students, and undergraduate students often go back and forth between laboratories at colleges and universities, and at teaching hospitals, to conduct research.

EPA recognizes that a teaching hospital that is owned by a college or university will instruct students from its medical school. However, due to the complex healthcare system, many times medical students or residents from a medical school will train in a teaching hospital that is affiliated with a college or university, but not owned by the college or university. We do not want to preclude these teaching hospitals that are training students and have a significant transient student population from participating in Subpart K. Therefore, EPA looked for a way to define the concept of "affiliated teaching hospital." We discovered that the Accreditation Council for Graduate Medical Education (ACGME) defines two types of agreements between a medical school and a teaching hospital: A master affiliation agreement and a program letter of agreement.[2] EPA has determined that the presence of both these agreements indicates that a teaching hospital is formally affiliated with a college or university.

Based on the evidence provided by commenters and additional EPA research, we have concluded that teaching hospitals owned by or formally affiliated with a college or university fit within all aspects of the rationale of today's final rule: many hazardous wastes that vary over time are generated in small quantities at many points of generation, and there is a significant and transient student population that is not familiar with the RCRA hazardous waste requirements. Therefore, EPA is allowing teaching hospitals, as defined in this final rule that are either owned by or have a formal written affiliation agreement with a college or university, to opt into Subpart K for their laboratories. (See section III.B.3 for a discussion of the definition of teaching hospital and formal written affiliation agreement or § 262.200.)

3. Laboratories Owned by Non-profit Research Institutes

EPA received many comments from representatives of non-profit research institutes, colleges and universities, and trade groups stressing the similarities between college and university laboratories and the laboratories at non-profit research institutes in terms of the hazardous waste generation pattern rationale identified in the rule and the student presence in the laboratories. As indicated above, a research laboratory at a non-profit research institute that is owned by or has a formal written affiliation agreement with a college or university shares the same hazardous waste generation pattern.

[2] The ACGME defines these terms in the "Glossary of Terms" that appears on its Web site at *http://acgme.org/acWebsite/about/ab_ACGMEglossary.pdf*. The ACGME also describes these documents in more detail in a document called Frequently Asked Questions Related to Master Affiliation Agreements and Program Letters of Agreement that appears on its Web site at *http://acgme.org/acWebsite/about/ab_FAQAgreement.pdf*.

In terms of the presence of a significant transient student population, one commenter explained that as a non-profit research institute, it has close ties with the local university; they collaborate with the university on projects and faculty hold joint appointments. The commenter added that students and researchers often travel between the non-profit's laboratories and the local university's laboratories and that because the hazardous waste management requirements at both institutions are the same under the existing generator regulations, currently there are minimal differences in hazardous waste management for the students and researchers to learn when working at both institutions. Thus, the commenter requested that EPA add non-profit research institutes to the final rule in order to minimize confusion and training challenges under Subpart K.

In response to these comments, EPA conducted additional research and identified from the BR information housed in the RCRAInfo database, nine non-profit research institutes that are LQGs (see section III.A.1 for information on their hazardous waste generation). For all nine LGG non-profit research institutes, we were able to obtain readily available information on student populations and programs, as well as substantial evidence that non-profit research institutes are similar to colleges and universities in that they sometimes grant degrees of their own, co-sponsor degrees with colleges and universities, teach classes, and share faculty, funding sources, and laboratory space with colleges and universities. We determined that the information obtained is generally representative of the universe of laboratories at non-profit research institutes, because among the non-profits we researched, we found that their hazardous waste generation patterns and student programs were remarkably homogenous.

One commenter wrote, "* * * the distinction between a research laboratory in a college and university and a research laboratory in an institution that is not a college and university has blurred considerably over the last decade." As EPA conducted additional study into non-profit research institutes, it was difficult for the Agency to draw a hard line between college and universities and non-profit research institutes. For example, Memorial Sloan-Kettering Cancer Center (MSKCC) is a non-profit cancer research institute, a teaching hospital, a graduate school in biomedical sciences, and is in partnership with the Weill Cornell Graduate School of Medical Sciences and Cornell University to train students in research and patient care. MSKCC also partners with New York-Presbyterian Hospital, the Hospital for Special Surgery, and the Rockefeller University. Via these partnerships, the majority of the faculty of the Weill Cornell Medical Graduate School of Medical Sciences has their research laboratories and other facilities located within the Weill Cornell Medical College-New York-Presbyterian Hospital Complex and the MSKCC's research laboratory buildings. Another outgrowth of this partnership is that MSKCC jointly administers a Ph.D. program with Cornell and Weill Medical College in computational biology and medicine. Finally, besides its own graduate school of biomedical sciences, MSKCC offers two certificate programs for students to learn cytotechnology and radiation therapy.

As shown in the example above, a non-profit research institute owned or formally affiliated with a college or university may be so closely associated with the college and university that excluding them will prevent colleges and universities from establishing one laboratory waste management system, introducing confusion among researchers working in laboratories at both institutions. In this situation, such non-profit research institutes are virtually identical to a college and university and their hazardous waste generation patterns and student presence fit within the rationale of this rule. This information made it clear to us that non-profit research institutes often are "academic" and should be eligible to opt into today's final rule, when they are owned by or formally affiliated with a college or university.

One commenter recommended that EPA expand the scope of the rule to any institution that has a formal affiliation with a college or university. While the Agency does not believe it should expand the scope of the rule to all institutions that have any kind of an affiliation with a college or university, we do believe it is appropriate to allow those non-profit research institutes that have a formal written affiliation agreement with a college or university to opt into Subpart K. In order to ensure that the formal written affiliation agreement between the two entities represents an affiliation that is longstanding, we believe that the affiliation must be at the institutional level, as opposed to an agreement between staff or professors at the two eligible academic entities. Of the nine non-profit research institutes that are identified as LQGs in the BR, we determined that eight had formal affiliations with colleges and universities on an institutional level. For example, the Burnham Institute not only administers its own graduate program, it also has an institutional affiliation with the University of California at San Diego by participating in a joint graduate training program in molecular pathology (where approximately 30 graduate students a year obtain their primary scientific training at the Institute).

The reason we are requiring a formal written affiliation agreement at the institutional level is because having a formal affiliation at the institutional level with a college or university seemed to increase the likelihood that the non-profit research institutes would have students in their laboratories. The presence of a significant transient student presence is an important rationale of today's rule. Typically, a formal affiliation at the institutional level allows students at a college or university to conduct thesis research at the non-profit research institute, use non-profit researchers as mentors, and at times, take some of their degree classes at the non-profit research institute. Further, requiring a formal written affiliation agreement between the non-profit research institute and a college or university will assist the implementing agency verify that an affiliation at the institutional level exists. Thus, for these reasons, we decided to limit today's rule to those non-profit research institutes that have a formal written affiliation at the institutional level with a college or university. For a discussion of the definition of "formal written affiliation agreement," see section III.B.3 of this preamble or § 262.200.

4. Laboratories Owned by Eligible Academic Entities That Are Conditionally Exempt Small Quantity Generators (CESQGs)

EPA recognizes that laboratories at eligible academic entities that are CESQGs share the same hazardous waste generation patterns as laboratories at larger generators, except the eligible academic entities that are CESQGs generate smaller quantities of hazardous waste. However, while laboratories at CESQGs fit within the rationale used to define the scope of this rule, the proposal did not allow them to opt in. At the time of the proposal, we had thought CESQGs would not want to opt into Subpart K since they currently are not subject to the controls that apply to satellite accumulation areas (SAAs) and do not have to comply with most of the other requirements that apply to LQGs and SQGs. In fact, many of the

provisions in today's final rule would be more stringent than those to which they are currently subject under § 261.5. At proposal, we solicited comment on whether the final rule should include laboratories at CESQGs.

Numerous commenters indicated that we should provide CESQGs with the same opportunity as SQGs and LQGs to assess which set of generator regulations is most appropriate for their laboratories and that we should not prohibit them from opting into Subpart K. Additionally, many comments from colleges and universities indicated that laboratory management would improve if their CESQG sites with laboratories could operate under this rule and follow the required LMP. Further, commenters explained that since colleges and universities often have CESQG sites, as part of a larger campus, a college or university may want to be able to manage all of its laboratories under one management system and that EPA should allow CESQGs to participate in Subpart K. This issue is particularly pertinent for urban college and university campuses that are divided by public roads. One campus can potentially include many separate generator sites, some LQGs, some SQGs, and some CESQGs. In light of the comments received, EPA agrees that it makes sense that at least some CESQGs would want to opt into Subpart K. Thus, EPA is allowing eligible academic entities to opt into Subpart K for their CESQG sites and is allowing stand-alone CESQGs to opt into Subpart K, as well. CESQG sites at an eligible academic entity may include field laboratories and small laboratories separated from the main campus by public roadways. In addition, we expect that some eligible academic entities that are themselves CESQGs (i.e., stand-alone CESQGs), such as small non-profit research institutes, may choose to opt into the rule to take advantage of the clean-out provisions.

Other commenters argued that the rule would encourage better environmental performance by extending the laboratory clean-out provisions to eligible academic entities that are themselves CESQGs or have CESQG sites without requiring them to comply with the rest of the Subpart K requirements. EPA agrees that stand-alone CESQGs and CESQG sites that are part of a larger eligible academic entity will benefit by removing legacy chemicals from the laboratory by taking advantage of the clean-out incentives of today's rule. However, EPA is not allowing a stand-alone eligible academic entity or a CESQG site that is part of a larger eligible academic entity to partake only in the laboratory clean-out provisions and not the other Subpart K requirements because this would prevent CESQGs from taking advantage of the two main benefits of today's final rule. That is, if a CESQG site only participated in the laboratory clean-out provisions, it would not be able to take advantage of the flexibility in where and when to make the hazardous waste determination. Second, if a CESQG site that is part of a larger eligible academic entity only participated in the laboratory clean-out provisions, it would be unable to establish one hazardous waste management system in all the laboratories at the eligible academic entity. The ability to establish a unified hazardous waste management system for all laboratories is one of the priorities cited by academic commenters. Therefore, in order for a CESQG site at an eligible academic entity or an eligible academic entity that is itself a CESQG to take part in the laboratory clean-out incentives, the eligible academic entity must opt into Subpart K in its entirety and follow the management standards for unwanted materials in the laboratories.

5. Facilities With Laboratories Not Eligible To Participate in Subpart K

As explained above, EPA solicited comment on whether to expand the scope of the rule beyond laboratories at colleges and universities to laboratories at other types of facilities. Many commenters supported expansion of the scope of the rule. We received comments from both government research laboratories and commercial R&D laboratories requesting to be included in this rulemaking. Overall, from the information available at this time, it appears that laboratories at both of these types of facilities have hazardous waste generation patterns similar to laboratories at colleges and universities—generating small quantities of many types of waste that vary over time at many points of generation—since they are research laboratories. However, information about the other key aspect of the rationale for today's rule, that is, significant student presence, has led EPA to determine that, at this time, laboratories at government research and commercial R&D facilities are not eligible to participate in Subpart K.

(a) Government Research Laboratories: We received comments from a number of governmental organizations that have research laboratories requesting that they be allowed to participate in (or opt into) Subpart K. These commenters, all from the Federal government, asserted that they fit the hazardous waste generation pattern explained by EPA as part of the rationale for Subpart K. In addition to the public comments, EPA collected readily available information on hazardous waste generation patterns and student presence in government research laboratories. From EPA's BR on hazardous waste generated by LQGs, we identified 39 LQG government research laboratories. In addition, in its comments on the proposal, one Federal agency provided student numbers for ten of its laboratories, three of which we have identified as LQGs. We also acquired aggregated student numbers or estimates for three other Federal agencies. We were unable to obtain student population data at laboratories at the remaining government research laboratories, including State and local governmental laboratories. Based on this lack of available information, EPA has decided to defer our decision on government research laboratories and therefore, government research laboratories are not included in this final rulemaking. Rather, in 2009, EPA expects to prepare a **Federal Register** Notice soliciting additional information about government research laboratories, particularly the presence of students at such research laboratories in order to make a more informed decision regarding whether or not to allow them to opt into Subpart K in the future.

(b) Commercial R&D Laboratories: EPA requested comment on whether private laboratories fit within the rationale of Subpart K and received comments from pharmaceutical companies, engineering companies, and a utility solid waste activity group, all requesting to be included in Subpart K because their laboratories fit within the rationale of the hazardous waste generation pattern. Based on these comments and responses to follow-up letters to commercial research and development laboratories (copies of which are in today's docket), it appears that there is a similar hazardous waste generation pattern (*i.e.*, small amounts of many different types of waste generated at multiple points of generation) as at laboratories at colleges and universities. However, there is little evidence of student presence in these laboratories as indicated in the follow-up responses from commenters and EPA's own research. Without the presence of students, commercial R&D laboratories do not have the same challenges in making hazardous waste determinations for their laboratory hazardous wastes and in training their laboratory personnel. Having similar hazardous waste generation patterns is

only one element in determining which entities should be eligible to opt into Subpart K. EPA believes that having a significant student presence in the laboratories (which increases the difficulty in training and in making hazardous waste determinations) is extremely important. Therefore, without meeting the rationale that a significant number of students must be present, EPA has decided not to allow commercial R&D laboratories to opt into Subpart K.

6. Non-Laboratory Facilities at Eligible Academic Entities

The Agency received many comments requesting that the rule address all types of facilities at a college or university where hazardous waste is generated, rather than limiting the rule to teaching and research laboratories. Commenters requested that non-laboratory areas, such as vehicle maintenance shops, machine shops, maintenance shops, fabrication units, athletic departments, power plants/energy generation units, print shops, and facilities operations be included in the scope of the final rule. Some commenters suggested that we include these areas by modifying the definition of laboratory to include them. Other commenters stated that creating a dual regulatory system for hazardous waste management on college or university campuses would hinder their participation in Subpart K and ultimately be confusing.

While the Agency understands the concerns raised by the commenters, we also believe that the Subpart K requirements were developed to address specific concerns raised by the academic community as they relate to hazardous wastes generated in their laboratories—that is, the situations and challenges that exist in teaching and research laboratories are unique (e.g., having to identify which of the potentially hundreds of different wastestreams meet the definition of hazardous waste). The academic community has not raised such concerns about the hazardous wastes generated outside of the laboratories. For this reason, we believe it is inappropriate to expand the scope of the rule beyond laboratories at eligible academic entities.

B. Discussion of Definitions

All of the definitions that appear in today's final rule are only for the purposes of 40 CFR part 262, Subpart K. Therefore, the definitions are relevant only to the eligible academic entities that have laboratories and choose to be subject to the provisions of today's final rule. This section discusses: (1) Those definitions that were proposed and have not changed since the proposal; (2) those definitions that were proposed, but have been modified based on comments received on the proposal; and (3) any new definitions that are being added, based on modifications to the final rule or comments on the proposed rule.

1. Definitions That Have Not Changed From the Proposed Rule

The following definitions have not been changed from the proposal. In general, we received few comments on these definitions and the comments we received on these definitions were supportive. Refer to the preamble from the proposed rule for a detailed discussion of these definitions (71 FR 29722).

College/University means a private or public, post-secondary, degree—granting, academic institution, that is accredited by an accrediting agency listed annually by the U.S. Department of Education.

Laboratory clean-out means an evaluation of the inventory of chemicals and other materials in a laboratory that are no longer needed or that have expired and the subsequent removal of those chemicals or other unwanted materials from the laboratory. A clean-out may occur for several reasons. It may be on a routine basis (e.g., at the end of a semester or academic year) or as a result of a renovation, relocation, or change in laboratory supervisor/occupant. A regularly scheduled removal of unwanted material as required by § 262.208 does not qualify as a laboratory clean-out.

Laboratory worker means a person who handles chemicals and/or unwanted material in a laboratory and may include, but is not limited to, faculty, staff, post-doctoral fellows, interns, researchers, technicians, supervisors/managers, and principal investigators. A person does not need to be paid or otherwise compensated for his/her work in the laboratory to be considered a laboratory worker. Undergraduate and graduate students in a supervised classroom setting are not laboratory workers.

Commenters pointed out that the definition of "laboratory worker" in the preamble to the proposed rule differed slightly from the definition in the proposed regulatory text. In the definition included the regulatory text, the last sentence of the definition included the words "Undergraduate and graduate" when referring to students. However, the definition included in the preamble discussion omitted the words "Undergraduate and graduate." Today, we are finalizing the definition, as it was proposed, so that the final sentence reads, "Undergraduate and graduate students in a supervised classroom setting are not laboratory workers."

It is worth noting that EPA would consider undergraduate or graduate students in an unsupervised research setting to be laboratory workers. Additionally, any student performing duties of a trained professional, such as transferring unwanted materials and hazardous wastes outside of a laboratory, would be considered a trained professional, rather than a student.

2. Definitions That Have Changed From the Proposed Rule

This section discusses comments on the definitions that were included in the proposed rule, as well as the changes that have been made to these definitions in today's final rule.

Central accumulation area—The Agency proposed to define "central accumulation area" as: an on-site hazardous waste accumulation area subject to either § 262.34(a) of this Part (large quantity generators) or § 262.34(d) of this Part (small quantity generators). A central accumulation area at a college or university that chooses to be subject to this subpart must also comply with § 262.211 when accumulating unwanted material.

The Agency has made three minor changes to the proposed definition of central accumulation area (CAA). First, we added a reference to the hazardous waste accumulation area regulations that are applicable to Performance Track members. There are currently three Performance Track members that would likely qualify as eligible academic entities (the MD Anderson Cancer Center, the University of Texas Medical Branch, and Washington State University), and we did not intend to imply that these eligible academic entities could not opt into Subpart K when we omitted a reference to the hazardous waste accumulation area regulations of § 262.34 that pertain to them.

The second change is to make more complete the reference to the hazardous waste accumulation area regulations for SQGs. The proposed definition referred only to § 262.34(d), which among other things, allows 180 days or less for the on-site accumulation of hazardous waste. However, SQGs also have the option of complying with § 262.34(e), which allows them to accumulate hazardous waste on-site for 270 days or less, if they must send their hazardous waste more than 200 miles for treatment, storage or disposal. In

addition, SQGs are subject to § 262.34(f), which states that if more than a total of 6000 kg of hazardous waste is accumulated on-site, the generator is a storage facility that is subject to the requirements for TSDFs. The third change was made to reflect the expansion of the applicability of the final rule beyond colleges and universities to eligible academic entities.

The definition of "central accumulation area" in the final rule is:

an on-site hazardous waste accumulation area subject to either § 262.34(a) (or 262.34(j) and (k) for Performance Track members) of this part (large quantity generators); or § 262.34(d)–(f) of this part (small quantity generators). A central accumulation area at an eligible academic entity that chooses to be subject to this subpart must also comply with § 262.211 when accumulating unwanted material and/or hazardous waste.

Laboratory—The Agency proposed to define "laboratory" as:

an area within a college or university where relatively small quantities of chemicals and other substances are used on a non-production basis for teaching or research purposes and are stored and used in containers that are easily manipulated by one person. An area where the same hazardous wastes are routinely generated, such as photo processing, is not a laboratory.

In response to comments and as a result of the expansion of scope of the final rule, the Agency has made several changes to the definition of laboratory. Specifically, the Agency has made two changes to reflect the expansion of scope, as discussed in section III.A of today's preamble. The first is to change the phrase "colleges and universities" to the phrase "eligible academic entities." The second change is to indicate that clinical diagnostic laboratories at teaching hospitals are included within the scope of the final rule, as well as teaching and research laboratories at all eligible academic entities. This change is being made due to the expansion of the scope to include teaching hospitals.

As discussed in section III.A.2 of today's preamble, the Agency believes, and commenters have supported the conclusion, that it is the research laboratories at a teaching hospital that are most similar to laboratories at colleges and universities in their hazardous waste generation patterns. However, we realize that it would be confusing and difficult for institutions to implement today's rule if the research laboratories at a teaching hospital were allowed to operate under Subpart K, but diagnostic laboratories at the same teaching hospital were not allowed to operate under Subpart K. In fact, some commenters have indicated that in many cases at teaching hospitals, it is not possible to distinguish a research laboratory from a clinical laboratory because they share physical space and staff. Therefore, the Agency has amended the definition of laboratory to include clinical diagnostic laboratories at teaching hospitals so that unwanted materials from all of the laboratories at a teaching hospital can be managed under the same management standards.

In addition, in response to numerous comments, the Agency has deleted the last sentence from the proposed definition of laboratory: "An area where the same hazardous wastes are routinely generated, such as photo processing, is not a laboratory." The reason the Agency originally included this statement in the proposed definition is that part of our basis for proposing this rule is that laboratories at colleges and universities, unlike other types of hazardous waste generators, generate many different types of wastes that vary over time. However, based on the comments received, we believe it is no longer appropriate to include this sentence for the following reasons. First, comments indicated that some photo laboratories do, in fact, generate many wastestreams that vary over time—this is especially true when the photo laboratories are art studios where students may be experimenting with different photographic techniques, such as daguerreotype and calotype finishing.

Second, commenters pointed out that it is not unusual for an individual research laboratory to generate the same hazardous waste routinely for lengthy periods of time, as it focuses on a single area of research. Additionally, commenters pointed out that teaching laboratories can have an experiment that is part of the ongoing curriculum and that generates the same hazardous wastes each semester. We did not intend to create a system whereby some laboratories at the eligible academic entity would be eligible and some would not, based on the hazardous waste generation pattern of each individual laboratory. To the contrary, for ease of implementation and enforcement, if the eligible academic entity chooses to be subject to Subpart K, the Agency is requiring that all laboratories covered under an individual EPA Identification Number must operate under those provisions. Therefore, we believe that it is sufficient that an eligible academic entity's laboratories, as a category, rather than each laboratory, generate many different wastes every day.

Third, based on comments and follow-up discussion, we now understand that in many cases photo processing takes place alongside teaching and research and that it would be difficult to regulate differently the various laboratory operations, as the same students and laboratory workers operate in both areas. Therefore, we have revised the definition of laboratory to include photo laboratories.

The Agency also received many comments suggesting that the definition of laboratory should include chemical stockrooms, preparatory laboratories and other areas ancillary to the laboratory. EPA agrees with these commenters that the definition of laboratory should include chemical stockrooms and preparatory laboratories and other areas that provide a support function to teaching or research laboratories (or diagnostic laboratories at teaching hospitals). The reason for this change is that the operation of these areas is well integrated with the operation of the laboratories; that is, they are often in close proximity to the laboratories, and share laboratory personnel, and thus should properly be viewed as part of the laboratory. Chemical stockrooms that are not associated with laboratory operations would not, however, be eligible to operate under Subpart K. For example, a chemical stockroom that stores cleaning chemicals or pesticides for maintenance at the facility would not be providing a support function to a laboratory and would not be considered a laboratory that is allowed to operate under Subpart K.

The Agency also agrees with commenters that field laboratories should be considered laboratories because we agree that field laboratories, like other laboratories under this rule, exhibit similar hazardous waste generation patterns. By considering field laboratories as laboratories, laboratory workers would thus only need to operate under one set of hazardous waste regulations. However, if the field laboratory is off-site and/or has a separate EPA Identification Number from the rest of the campus, the eligible academic entity must notify separately that the field laboratory will be subject to Subpart K. In the proposal, we stated that we expected many field laboratories to be CESQGs, which under the proposal were not eligible to opt into Subpart K. Commenters confirmed that many field laboratories are, indeed, CESQGs. Therefore, with the modifications that the Agency is making in today's rule regarding the eligibility of CESQGs and the definition of "laboratory," field laboratories, whether they are located on-site or off-site from the rest of the eligible academic entity, would be allowed to operate under the

Subpart K requirements. See Section III.C.9 regarding the implementation of Subpart K at CESQG sites.

Furthermore, a number of commenters agreed with the Agency's position that art studios at eligible academic entities should be considered laboratories, despite the fact that they are rarely referred to as laboratories. These commenters confirmed that art studios have similar hazardous waste generation patterns as scientific laboratories, and, like other classroom settings, have students generating much of the hazardous waste. Therefore, the definition has been changed to clarify that the Agency considers art studios to be laboratories for the purposes of Subpart K.

Finally, we proposed that a "laboratory" is "an area within a college or university * * *" We received comments suggesting that we modify the definition of laboratory to be "an area under the administrative or managerial control of a college or university * * *" However, this terminology is not currently used or defined under RCRA. The Agency agrees that the definition should be more specific and we have incorporated into today's definition of "laboratory" a similar concept as suggested by the commenters. However, we have relied on terminology that is already used and defined in RCRA. Specifically, under today's final rule, a laboratory is "an area that is owned by an eligible academic entity * * *" Therefore, in today's preamble and final rule, when we use the term laboratory, we are referring to laboratories that are owned by an eligible academic entity.

To be eligible to opt into today's final rule, an institution first must meet the definition of "eligible academic entity." That is, it must be a college or university, or a non-profit research institute or teaching hospital that is owned by or has a formal written affiliation agreement with a college or university, as these terms are defined in today's rule. Second, an eligible academic entity may opt into Subpart K for the laboratories that it owns. Therefore, government facilities with laboratories that are operated by colleges and universities (such as many of the Department of Energy's laboratories) would not be eligible to opt into Subpart K, because the government facility is not an eligible academic entity and the laboratories are not owned by an eligible academic entity.

For the reasons discussed above, today's final rule defines "laboratory" as follows:

> an area owned by an eligible academic entity where relatively small quantities of chemicals and other substances are used on a non-production basis for teaching or research (or diagnostic purposes at a teaching hospital) and are stored and used in containers that are easily manipulated by one person. Photo laboratories, art studios, and field laboratories are considered laboratories. Areas such as chemical stockrooms and preparatory laboratories that provide a support function to teaching or research laboratories (or diagnostic laboratories at teaching hospitals) are also considered laboratories.

Reactive acutely hazardous unwanted material—The Agency proposed to define "reactive acutely hazardous unwanted material" as:

> an unwanted material that is one of the acutely hazardous commercial chemical products listed in § 261.33(e) for reactivity and toxicity.

At proposal, the Agency intended to maintain more stringent regulations in the laboratory for the "P-listed" commercial chemical products that are listed for reactivity because of their high potential for causing immediate harm. In the preamble to the proposed rule, we provided a list of seven commercial chemical products that we believed met this definition:

(1) P006 (CAS Number: 20859–73–8) Aluminum phosphide;

(2) P009 (CAS Number: 131–74–8) Ammonium picrate; Pheno, 2,4,6-trinitro-, ammonium salt;

(3) P042 (CAS Number: 51–43–4) 1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl];

(4) P065 (CAS Number: 628–86–4) Fulminic Acid, mercury(2+) salt; Mercury fulminate;

(5) P081 (CAS Number: 55–63–0) Nitroglycerine; 1,2,3-Propanetriol, trinitrate;

(6) P112 (CAS Number: 509–14–8) Methane, tetranitro-; Tetranitromethane; and

(7) P122 (CAS Number: 1314–84–7) Zinc phosphide Zn_3P_2 when present at concentrations greater than 10%.

Many commenters correctly pointed out that P042 (CAS Number 51–43–4) 1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, which is actually Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-, (and is also known as epinephrine) is not listed on the "P-list" because of reactivity. They pointed out that the (R)- following the listing for P042 refers to the R enantiomer of the chemical and does not refer to the reactivity characteristic. The Agency acknowledges that the commenters are, indeed, correct, and if epinephrine were an unwanted material in a laboratory, it would not meet the definition of reactive acutely hazardous unwanted material. EPA's acknowledgment is simply a matter of clarification and does not affect the definition as proposed.[3]

Many commenters also correctly pointed out that three of the chemicals on the list above are listed only for reactivity (P009, P081, P112), and not for toxicity and, therefore, do not meet the definition of reactive acutely hazardous unwanted material, as proposed. While the commenters are correct that P009, P081, and P112 are listed only for reactivity, we believe that the proposal was clear as to the Agency's intent—that a "reactive acutely hazardous unwanted material" includes those chemicals included on the P-list for reactivity, and that *some* of those chemicals were listed for toxicity, as well. The wording of the proposed definition, however, did not convey that clearly. Therefore, we are revising the definition of "reactive acutely hazardous unwanted material" to be consistent with the intent discussed in the preamble, by omitting the reference to toxicity, as follows:

> an unwanted material that is one of the acutely hazardous commercial chemical products listed in § 261.33(e) for reactivity.

Trained professional—The Agency proposed to define a "RCRA-trained individual" as:

> a person who has completed the applicable RCRA training requirements of § 265.16 for large quantity generators, or § 262.34(d)(5)(iii) for small quantity generators. A RCRA-trained individual may be an employee of the college/university or may be a contractor or vendor.

The Agency is replacing the term "RCRA-trained individual" with "trained professional." This does not affect the substance of the definition, but is merely a change in terminology since Subpart K is part of the RCRA hazardous waste regulations and including "RCRA" as part of the term is unnecessary and may, in fact, imply that anyone who is trained under Subpart K is not "RCRA" trained.

In addition, because the final rule has been expanded to include eligible academic entities that include CESQG sites or that are themselves CESQGs, we have added to the definition of "trained professional" a requirement that a trained professional at an eligible academic entity that is a CESQG must be trained in accordance with the SQG training requirements of

[3] The Agency has recently issued a memo clarifying that the scope of the P042 listing does not include epinephrine salts (see memo from Hale to EPA Regions, October 15, 2007, RCRA Online # 14778).

§ 262.34(d)(5)(iii). As discussed in more detail in Section III.C.4 of today's preamble, the hazardous waste determination and on-site transfers of unwanted materials outside the laboratory must be performed by trained professionals (also see § 262.207). The proposed definition of "RCRA-trained individual" (which is re-named "trained professional" in today's final rule) relied on references to the existing generator training requirements, which vary based on generator status. The existing CESQG regulations, however, do not include training requirements. It would be counter to the intent of today's rule to allow CESQGs opting into Subpart K to have untrained personnel making the hazardous waste determination and transferring unwanted materials outside the laboratory. Therefore, today's final rule requires that trained professionals at eligible academic entities that are CESQGs must be trained in accordance with the SQG training requirements.

Finally, because the applicability of the final rule has been broadened beyond colleges and universities, the Agency has modified the definition of "trained professional" accordingly, as follows:

> a person who has completed the applicable RCRA training requirements of § 265.16 for large quantity generators, or is knowledgeable about normal operations and emergencies in accordance with § 262.34(d)(5)(iii) for small quantity generators and conditionally exempt small quantity generators. A trained professional may be an employee of the eligible academic entity or may be a contractor or vendor who meets the requisite training requirements.

Unwanted material—The Agency proposed to define "unwanted material" as:

> means any chemical, mixtures of chemicals, products of experiments or other material from a laboratory that are no longer needed, wanted or usable in the laboratory and that are destined for hazardous waste determination by a RCRA-trained individual. Unwanted material includes reactive acutely hazardous unwanted materials. Unwanted material includes material that may eventually be determined not to be solid waste pursuant to § 261.2 or a hazardous waste, pursuant to § 261.3.

The Agency has made two changes to the definition of unwanted material. The first is to reflect the change from the term "RCRA-trained individual" to "trained professional." The second change is to reflect the additional flexibility that we have added to the final rule that allows an eligible academic entity the option of using another "equally effective term" in lieu of the term "unwanted material." In the preamble and the regulations, the Agency continues to use the term, "unwanted material," but an eligible academic entity that opts into Subpart K may use another term if it chooses, provided the term is used consistently and is identified in its LMP. Regardless of the term that is used, however, it will have the same meaning as found in the definition for unwanted material, and it will be subject to the same requirements under Subpart K. This additional flexibility allowed for using another term in lieu of "unwanted material" is discussed in more detail in preamble section III.C.2 (also see § 262.206).

For the reasons discussed above, today's final rule defines "unwanted material" as:

> any chemical, mixtures of chemicals, products of experiments or other material from a laboratory that is no longer needed, wanted or usable in the laboratory and that is destined for hazardous waste determination by a trained professional. Unwanted materials include reactive acutely hazardous unwanted materials and materials that may eventually be determined not to be solid waste pursuant to § 261.2, or a hazardous waste pursuant to § 261.3. If an eligible academic entity elects to use another equally effective term in lieu of "unwanted material," as allowed by § 262.206(a)(1)(i), the equally effective term has the same meaning and is subject to the same requirements as "unwanted material" under this subpart.

3. Definitions That Are New

The definitions discussed in this section of today's preamble are those definitions that have been developed and added since the proposal. All new definitions, except one, pertain to the expansion of the scope to other eligible academic entities.

Eligible academic entity—Today's final rule defines "eligible academic entity" as:

> a college or university, or a non-profit research institute that is owned by or has a formal written affiliation agreement with a college or university, or a teaching hospital that is owned by or has a formal written affiliation agreement with a college or university.

Since we have expanded the scope of the final rule to allow non-profit research institutes and teaching hospitals that are either owned by or have a formal written affiliation agreement with a college or university to opt into Subpart K, we believe it is appropriate to add a new term to refer to these types of institutions collectively.

Incorporated in the definition above is the concept that teaching hospitals and non-profit research institutes must be either owned by or have a formal written affiliation agreement with a college or university. As explained in section III.A. of today's preamble, we are requiring a formal written affiliation agreement with a college or university because the affiliation indicates that an entity is integrated with the college or university and that the entity has a significant transient student presence. Our research also demonstrated that in some instances, a teaching hospital or non-profit research institute is owned by a college or university. We assume that if a non-profit research institute is owned by a college or university it would not have a formal written affiliation agreement. Similarly for teaching hospitals, we assume that a formal written affiliation agreement, defined below for teaching hospitals as a master affiliation agreement and program letter of agreement, would not exist when the teaching hospital is owned by the college or university. Thus, this definition allows teaching hospitals and non-profit research institutes that are located on-campus or off-campus to opt into this rule, provided they are owned by or have a formal written affiliation agreement with a college or university.

Formal written affiliation agreement—Today's final rule defines "formal written affiliation agreement" as:

> for a non-profit research institute means a written document that establishes a relationship between institutions for the purposes of research and/or education and is signed by authorized representatives, as defined by § 260.10, from each institution. A relationship on a project-by-project or grant-by-grant basis is not considered a formal written affiliation agreement. A formal written affiliation agreement for a teaching hospital means a master affiliation agreement and program letter of agreement, as defined by the Accreditation Council for Graduate Medical Education, with an accredited medical program or medical school.

For non-profit research institutes, "formal written affiliation agreement" is defined in a manner to reflect the importance of having an official legal written agreement documenting the affiliation, partnership, collaboration, or association between the non-profit research institute and a college or university. In order for a non-profit research institute to be eligible to opt into Subpart K, it must have this documentation.

The Agency is requiring that this agreement be signed by authorized representatives with the authority to obligate the institution as a whole. The term "authorized representative" is already defined in 40 CFR 260.10 as "the person responsible for the overall

operation of a facility or an operational unit (i.e., part of a facility), e.g., the plant manager, superintendent, or person of equivalent responsibility." The Director or Chief Executive Officer (CEO) of a non-profit research institute and the President or Dean of a college or university, among others, would be considered authorized representatives.

The Agency also stresses that the formal written affiliation agreement must be between the institutions: The non-profit research institute and the college or university. This agreement is intended to represent a long-standing collaboration between the two institutions rather than simply a relationship between two principal investigators or researchers, working jointly for the duration of a particular project or grant. An example of what we would consider to be an affiliation at the institutional level includes being a member of a research consortium with colleges and universities. For instance, the Southwest Research Institute is a member of the Southwest Research Consortium which combines the research capabilities of nine research and educational organizations, including the University of Texas at San Antonio, Trinity University, and St. Mary's University. Another example of what we would consider an institutional-level affiliation agreement is when there are joint faculty appointments on a departmental or other large-scale basis. For instance, Seattle Biomedical Research and the University of Washington have a formal affiliation where all researchers at Seattle Biomedical Research are also faculty members at the University of Washington. A third example of what we would consider an institutional-level affiliation agreement is when a non-profit co-sponsors degrees with a college or university. For instance, Fred Hutchinson Cancer Research Center and the University of Washington jointly administer or co-sponsor a Ph.D. program in Molecular and Cellular Biology. Thus, EPA developed this definition to be broad to encompass the various working situations that we understand to be currently in existence.

For the definition of formal written affiliation agreement for teaching hospitals, EPA researched definitions and terms to describe the concept of "affiliated teaching hospitals," such as "academic health centers," "major teaching hospital," and "university teaching hospital." We quickly discovered that an industry-wide standard term for referring to teaching hospitals affiliated with colleges and universities does not exist. Without a standard definition, we looked into how college or university medical schools are linked with hospitals. We learned that the ACGME has established a mechanism for medical schools to send residents to hospitals that are not part of the medical school. In such cases, ACGME requires a master affiliation agreement and a program letter of agreement between the medical school and the teaching hospital. Since the ACGME defines these two types of agreements and requires them in certain arrangements between teaching hospitals and colleges and universities, and since the industry already follows and understands these agreements, we have decided to refer to these agreements in the definition of "formal written affiliation agreement" for teaching hospitals in this rule.

Non-profit research institute—Today's final rule defines "non-profit research institute" as:

> an organization that conducts research as its primary function and files as a non-profit organization under the tax code of 26 U.S.C. 501(c)(3).

EPA's definition, which refers to a well-known, existing definition under the tax code of 26 U.S.C. 501(c)(3), is intended to make the definition as clear as possible, as well as easy for implementers and inspectors to verify. We are emphasizing through this definition that not every non-profit organization is eligible to opt into the Subpart K requirements. Rather, the non-profit must conduct research as its primary function. We require this because, as explained in sections II.B and III.A of this preamble, research laboratories, as a category of laboratories, have a hazardous waste generation pattern that fits within the rationale of today's final rule. Further, as discussed above, the non-profit research institute must either be owned by a college or university or have a formal written affiliation agreement with a college or university in order to be eligible to opt into this rule.

Teaching hospital—Today's final rule defines "teaching hospital" as:

> a hospital that trains students to become physicians, nurses or other health or laboratory personnel.

EPA believes it is important to capture the basic purpose of a teaching hospital in this definition: training students in medicine. A teaching hospital will train nursing students, medical residents, technicians, and others in the laboratories at the hospital's facilities ensuring that teaching hospitals fit within a key aspect of the rationale of today's rule: a significant transient student presence in the laboratories. In addition, the teaching hospital must either be owned by a college or university or have a formal written affiliation agreement with a college or university in order to be eligible to opt into this rule.

Working container—The Agency did not include a definition of "working container" in the proposed rule. In the preamble to the proposed rule, however, we did discuss a possible definition for working container and solicited comment on whether the final rule should include such a provision. The definition of "working container" in the preamble to the proposed rule was:

> A small container (of one gallon or less), managed under the control of a laboratory worker and used at a bench or work station, whose contents are emptied into a container of unwanted material at the end of the procedure.

There generally was broad support among commenters for including a definition of working container in the final rule. A number of commenters suggested, however, that the Agency increase the maximum size limit of a working container to five gallons. Since one gallon is equal to 3.78 liters, the one-gallon limit discussed in the preamble to the proposed rule would have precluded the use of four-liter solvent bottles as working containers. The Agency believes that a 5-gallon limit for working container is too large to be appropriate despite suggestions from commenters. Given that water weighs 8.34 pounds per gallon, a full 5-gallon container would weigh in excess of 40 pounds, which may be pushing the limits of what can be easily manipulated by one person (without the aid of equipment or other devices). This is especially true considering that the contents of many working containers will be transferred to other containers for disposal.

Nevertheless, the Agency does agree that since 4-liter solvent bottles are commonly used as collection containers in laboratories and are easily manipulated by one person, even if full, the Agency believes a two-gallon limit for working containers is more appropriate. Furthermore, two gallons is consistent with an interpretive letter signed by both Region I and the State of Massachusetts (September 2004; a copy of which is in today's docket), that originally introduced the concept of a working container under RCRA. Therefore, in response to these comments, the Agency has increased the maximum size of a working container to two gallons. The Agency is not limiting the type of containers that can be used as working containers. Thus, the types of containers that we would expect to be

used as working containers are beakers, flasks, bottles, and other types of containers typically used in a teaching or research laboratory.

The Agency also has deleted from the definition of working container that appeared in the preamble to the proposed rule the requirement for the contents of a working container to be emptied into a container of unwanted material at the end of a procedure. We believe it is more appropriate to include any management standards for working containers in § 262.206(b), which addresses the management standards for all containers.

Finally, the Agency has added to the definition that working containers are those that are used to collect "unwanted material." The Agency believes that this modification is necessary in order to distinguish "working containers" from other containers used during an experiment or procedure that may contain product and are not subject to the RCRA Subtitle C regulations. See section III.C.3 of today's preamble for a detailed discussion of the container management standards that apply to working containers (also see § 262.206).

The definition of "working container" in today's final rule is:

> a small container (i.e., two gallons or less) that is in use at a laboratory bench, hood, or other work station, to collect unwanted material from a laboratory experiment or procedure.

C. Specific Requirements of the Alternative Regulations

Today's final Subpart K regulations will allow laboratories at eligible academic entities to send unwanted materials that are generated in the laboratory to an on-site CAA or an on-site TSDF before making the hazardous waste determination for the unwanted materials, or to make the hazardous waste determination in the laboratory prior to its removal. However, the eligible academic entity must meet certain requirements such as notifying, complying with performance-based standards in the laboratory, and developing and implementing an LMP with nine required elements as described in the sections below.

1. Notification

Because today's final rule provides eligible academic entities the option to manage their hazardous wastes from laboratories under the existing generator regulations or their laboratories' unwanted materials under today's provisions, it is important that EPA, or the authorized State, know to which set of regulations an eligible academic entity's laboratories are subject. Therefore, this rule requires that an eligible academic entity choosing to manage its unwanted materials in compliance with the alternative set of generator requirements being promulgated today submit a one-time notification to the appropriate EPA Regional Administrator or, when appropriate, State Director in authorized States that have adopted the final rule. Should an eligible academic entity decide not to opt into Subpart K, it will continue to operate under the existing generator regulations and there is no need to notify.

EPA proposed that the notification be provided by letter, but requested comment on whether the RCRA Subtitle C Site Identification Form (EPA Form 8700–12; or Site Identification Form) should be used to provide this notice, and whether the form should be modified to include a checkbox to indicate that a college or university is choosing to be subject to Subpart K. One commenter pointed out the advantage to using a letter would be to allow a college or university to submit one notice for several sites with different EPA Identification Numbers. However, most commenters supported the option of using the Site Identification Form to notify EPA (or the authorized State) regarding their decision to manage laboratory hazardous waste under the Subpart K requirements. The commenters noted that the regulated community is already familiar with this form and the form requires much of the necessary information required by the notification requirement that was proposed under Subpart K, such as name of the facility, address, and EPA Identification Number. Further, most commenters agreed that by using the Site Identification Form, there would be increased consistency in reporting. When eligible academic entities notify by Site Identification Form, the information is included in the RCRAInfo database, which provides an additional benefit of being able to monitor the extent to which eligible academic entities are taking advantage of this new Subpart.

Based on these comments, EPA is requiring the use of the Site Identification Form for notification of opting into, as well as withdrawing from Subpart K. In order to use this form for this purpose, we will be modifying the Site Identification Form to include a checkbox for an eligible academic entity to indicate what type of entity it is (i.e., a college or university, or a teaching hospital or a non-profit research institute that is either owned by or has a formal written affiliation agreement with a college or university) and that it is choosing to be subject to the 40 CFR part 262, Subpart K requirements.[4] There is also a checkbox for an eligible academic entity to indicate that it is withdrawing from the Subpart K requirements, if after having decided to be subject to Subpart K, it determines it would prefer to be regulated under the existing hazardous waste generator standards.

Since we are requiring the use of the Site Identification Form, an eligible academic entity will have to submit one Site Identification form for each EPA Identification Number, or site as defined by RCRA.[5] Thus, if the eligible academic entity is composed of multiple sites (i.e., it has multiple EPA Identification Numbers) and all its sites will operate under Subpart K, separate Site Identification Forms must be submitted for each site. For example, if an urban college or university composed of multiple sites divided by public roads wants all of its laboratories to operate under Subpart K, the college or university must notify the appropriate authority that each of its sites is going to be subject to 40 CFR part 262, Subpart K by submitting a Site Identification Form for each distinct site (i.e., EPA Identification Number) opting into today's rule.

As indicated in the example above, an eligible academic entity can be composed of multiple sites because of the way RCRA defines "on-site." We believe that where this is the case, the eligible academic entity will choose to have all its sites at a single campus opt into Subpart K. This would allow eligible academic entities to have a unified institution-wide hazardous waste management system for all its laboratories on campus, which is one of the highest priorities for Subpart K cited by the academic community in their public comments. However, since a campus or institution opts in for each individual site, via EPA Identification Number, there is nothing in today's rule

[4] If an eligible academic entity chooses to opt into Subpart K prior to the completion of the revisions to the Site Identification Form (8700–12), it should indicate in the comment field of the form what type of eligible academic entity it is and that it is opting into Part 262 Subpart K.

[5] RCRA 40 CFR part 260.10 defines, "on-site" to mean the same or geographically contiguous property which may be divided by public or private right-of-way provided the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along, the right-of-way. Non-contiguous properties owned by the same person, but connected by a right-of-way which he controls and to which the public does not have access, is also considered on-site property. For further interpretations, see Memo, Shapiro to Wojdyla; May 1, 1996, (RCRA Online #14031), a copy of which is in today's docket.

that requires an eligible academic entity to have all of its separate sites opt into the Subpart K requirements. Thus, by not requiring that all the sites with different EPA Identification Numbers at an eligible academic entity opt into this rule together, we are providing additional flexibility for the eligible academic entity to determine the best hazardous waste management practices for its facility.

Teaching hospitals and non-profit research institutes, as defined in this rule, may be located on a college or university campus or located nearby. In rare instances, they may even be located in a separate State from the college or university with which they are affiliated. Since eligible academic entities opt in by filling out the Site Identification Form, a teaching hospital or non-profit research institute that has a separate EPA Identification Number from a college or university must decide independently whether it wants to opt into today's final rule. When a teaching hospital or non-profit research institute is owned by or formally affiliated with a college or university and located on campus, it does not have to opt in when the college or university opts in, if it is a separate site or has a separate EPA Identification Number, although, as noted above, we believe that teaching hospitals and non-profit research institutes will likely opt into Subpart K, if the colleges or universities with which they are affiliated opt in, to create a more integrated laboratory waste management system on campus.

As explained above, while not all the sites of an eligible academic entity must choose to be subject to today's rule, we continue to stress that all laboratories owned by the eligible academic entity within one EPA Identification Number must comply with the same set of regulations. In other words, the alternative approach cannot be applied to only one or a few laboratories within that EPA Identification Number, but rather must apply to all laboratories or no laboratories. The reason for this is that EPA believes it would be difficult for an eligible academic entity to keep track of which set of generator regulations apply to which laboratory or group of laboratories. Moreover, it would be extremely difficult, if not impossible, for the States or Regions to keep track of the applicable set of regulations if, within a single EPA Identification Number, different laboratories were choosing to be regulated under different requirements. No mechanism currently exists at EPA or the States to track such distinctions.

The required notice must be submitted to the appropriate EPA Regional Administrator (or State Director in authorized States that adopt the final rule). At all times, an eligible academic entity's laboratories must comply with either the existing hazardous waste generator regulations or the Subpart K regulations. Once an eligible academic entity notifies by Site Identification Form that it is opting into Subpart K, EPA expects that the site will be in compliance with the Subpart K requirements. Therefore, we strongly suggest that an eligible academic entity prepare its LMP and ready its facilities for the Subpart K laboratory hazardous waste management system before it submits a Site Identification Form to the EPA Regional Authority (or State Director in authorized States). Further, an eligible academic entity may, for example, want to train its employees in the Subpart K labeling requirements and container management standards before notifying. In addition, an eligible academic entity may want to contact its hazardous waste vendors to prepare the vendor for the eligible academic entity's switch to Subpart K.

It is also possible that after an eligible academic entity has chosen to manage its unwanted materials under the Subpart K regulations and has gained some experience with the program, it may decide that this approach is not meeting its needs, and that it would prefer to return to regulation under the now existing applicable generator regulations, 40 CFR part 262 (or 40 CFR 261.5 for CESQGs). Under this final rule, an eligible academic entity that chooses to end its participation in the Subpart K program would be required to submit another Site Identification Form to the EPA Regional Administrator (or State Director in authorized States) checking the box for withdrawing from 40 CFR part 262, Subpart K. Then, the eligible academic entity's laboratories would no longer be subject to Subpart K and would be subject to the existing applicable generator regulations. Once the Agency receives the Site Identification Form from the eligible academic entity indicating that it is withdrawing from the Subpart K program, the Agency expects that the eligible academic entity will be in compliance with the 40 CFR part 262 applicable generator requirements (or 40 CFR 261.5 for CESQGs).

Finally, EPA sought comment on whether the Regional Administrator (or State Director in authorized States) should provide the eligible academic entity with a written receipt of the one-time notice before it could manage its unwanted materials in accordance with the Subpart K requirements. Most commenters did not want to wait for EPA or the State to provide a written receipt of the one-time notice before managing their unwanted materials under these alternative generator requirements; they argued that it would cause delay and confusion. Other commenters pointed out that many States already respond in writing when the Site Identification Form is received. Therefore, we are not requiring that the Regional Administrator (or State Director in authorized States) provide a written receipt of the one-time notice before the eligible academic entity can manage its unwanted materials under the Subpart K requirements. (For more information on how CESQGs notify, see section III.C.9 and § 262.203.)

2. Labeling Standards

Because today's rule provides laboratories owned by eligible academic entities with flexibility in where and when to make the hazardous waste determination, labeling requirements for unwanted materials in the laboratory are needed. For example, labeling is critical to ensure that non-laboratory personnel, such as firefighters can quickly ascertain the hazardous materials that are in the laboratory in case of an emergency. In order to provide the necessary information to laboratory personnel, EH&S staff, inspectors, emergency responders, and others, today's rule includes performance-based labeling requirements that are informative, yet flexible to fit the varying situations at eligible academic entities.

The labeling requirements in the proposed rule consisted of two sets of performance-based labels. First, the proposal required that a label be affixed to or physically accompany the container of unwanted material. This label was intended to convey the most essential information that one needs to know about the contents of the container in an emergency situation. It also was intended to convey the notion that "unwanted material" was no longer wanted in the laboratory. Thus, the proposal required that this label include the words "unwanted material," as well as sufficient information to alert emergency response personnel to the container's hazards or contents.

The second part of the proposed labeling requirements provided flexibility by allowing information to be "associated with the container." We proposed that this label contain sufficient information for the RCRA-trained professional (which has been changed to trained professional in today's final rule) to make the hazardous waste determination. At a minimum, the information "associated" with containers of unwanted materials

was intended to ensure that a hazardous waste determination of the contents can be made by a trained professional. Additionally, the proposal required that the date when the unwanted materials first began accumulating in the container be associated with the container, so that EH&S staff or other trained professionals would know when to remove the containers of unwanted materials from the laboratory. The preamble to the proposed rule indicated that the accumulation start date and information sufficient to make a hazardous waste determination could be on the label that is affixed to or physically accompanies the container, but must, at a minimum, be associated with the container.

In the preamble to the proposed rule, we discussed examples of how the required information might be "associated" with a container. One example is that laboratory personnel could number containers of unwanted material and create an accompanying spreadsheet containing sufficient information to identify the material for each numbered container of unwanted material that would be given to the trained professional to make the hazardous waste determination. Another example is that laboratories could affix a bar code to each container of unwanted material that when scanned would provide the necessary information to make the hazardous waste determination of the unwanted material. Alternatively, laboratory personnel might choose to include a printed inventory of the unwanted materials and the associated information for each container that would provide the necessary information for a trained professional to make the hazardous waste determination.

The Agency received a large number of comments from academia in support of the performance-based labeling requirements in lieu of prescriptive requirements. In keeping with the original intent of the rulemaking, today's final rule maintains the performance-based two-tiered labeling structure; however, we have revised the labeling requirements to take into account public comments received on the proposal.

Specifically, we have revised the proposed labeling requirements in today's final rule to clarify that the first part of the labeling requirement requires the label to be "affixed or attached to" the container of unwanted material rather than be "affixed to or physically accompany" the container. We believe this modified language provides clarity and ensures that, during the accumulation period in the laboratory or during on-site transfer, the identifying information will not be inadvertently separated from a container of unwanted material and thus the contents of any container can be quickly identified in an emergency situation. Examples of labels that are "affixed or attached to" containers of unwanted materials are stickers that have been affixed on the container by adhesive, or labels that are attached to a small container of unwanted material (i.e., too small for an adhesive label) by wire or a piece of tape.

Many commenters expressed concern about the proposed requirement to label containers with the words "unwanted material," preferring a more flexible labeling requirement. As one commenter stated, "The purpose of adding an additional label [unwanted material] to a reagent chemical container, for instance, is to differentiate it from others that a lab still wants or needs in their work so that the pickup crew or contractor knows which containers to take. The exact terminology is not important to meeting this goal." In response to this and other similar comments, in the final rule, we are requiring that containers be labeled with the words "unwanted material" or another "equally effective term" that is used consistently by the eligible academic entity and is identified in Part I of the eligible academic entity's LMP. Examples of an "equally effective term" include, but are not limited to, "laboratory waste" or "chemical lab waste." We believe this approach is responsive to the comments in that it provides each eligible academic entity with flexibility, yet conveys the basic information that the material is no longer needed or wanted in the laboratory. To this end, if an eligible academic entity elects to use another equally effective term in lieu of "unwanted materials," that term must address and have the same meaning as "unwanted material," and is subject to the same requirements in Subpart K for "unwanted material." Additionally, if an eligible academic entity chooses to use an equally effective term instead of "unwanted materials," the eligible academic entity must use the term consistently in all its laboratories that are covered by its LMP. It would not be acceptable for each laboratory at an eligible academic entity to be free to use its own term of choice because the use of different terms at the same eligible academic entity would cause confusion for implementers and enforcers.

A number of commenters opposed the proposed requirement that the label that is "affixed to or physically accompany" the container provide sufficient information to alert emergency responders to the contents or the hazards of the container, arguing that the requirement is unnecessary and burdensome.[6] EPA disagrees with these comments and believes that maintaining this information is necessary to protect the safety of workers, students, emergency responders, and others that may come into contact with containers of unwanted materials. For safety purposes, emergency responders need to have a quick way to assess the contents of a container. However, we understand that at least part of the concern was the use of the term "hazards," in that it caused some confusion among commenters, many of whom thought that the Agency was proposing to require Department of Transportation (DOT) hazard classes or National Fire Protection Agency (NFPA) chemical hazard labels to be on the label that must be "affixed to or attached to" the container. This was not the Agency's intent. To address this misunderstanding in today's final rule, we have clarified the requirement that the label contain sufficient information to alert emergency responders to the contents of the container. This performance-based standard could be met by including information, such as the name of the chemical(s) in the container or, alternatively, a descriptive phrase, such as "inorganic solvents," "halogenated organic solvents," or "water reactive chemicals." This requirement is flexible, yet provides sufficient information to emergency responders in an easily understandable manner that would allow them to ascertain the potential dangers associated with the contents of containers in the laboratory, while being protective of health and safety.

As proposed, today's final rule requires that each container of unwanted material must have associated with the container the date that the unwanted material begins accumulating and information sufficient to make a hazardous waste determination. We are allowing this information to be "associated with" the container, as opposed to requiring that it be "affixed or attached to" the container, in order to facilitate the use of technology in conveying this information. This could be done using an electronic spreadsheet, a bar code, or some other printed inventory of containers (see previous examples of "affixed or attached to" or

[6] As discussed previously, the requirement that the label be "affixed to or physically accompany" the container has been changed in the final rule to that the label must be "affixed or attached to" the container.

"associated" labels). We also point out that this labeling requirement maintains the flexibility of the proposed rule, such that an eligible academic entity can use the container labeling approach that works best for the institution. That is, while it is acceptable to have the accumulation start date and information sufficient to make a hazardous waste determination "associated with" the container, some eligible academic entities may prefer to have all required container labeling information in a single place. Therefore, it is also acceptable to place the accumulation start date and the information sufficient to make a hazardous waste determination on the label that is "affixed or attached to" the container. We have reworded the container labeling regulations accordingly to reflect the intended flexibility and to indicate that, at a minimum, the accumulation start date and information sufficient to make a hazardous waste determination must be "associated with" the container, but that it can be on the label that is "affixed or attached" to the container, if that is preferred.

Many commenters had concerns about the burden imposed by the requirement to associate the accumulation start date with containers of unwanted material because it is not required in the current satellite accumulation area regulations. We maintain that this requirement is necessary to ensure that accumulation time limits in the laboratory are complied with for containers of unwanted material. Some commenters argued that alternatively, EPA should add a requirement to log regular removals from each laboratory in lieu of the container "dating" requirement. We disagree with this comment because we believe that the suggested method would not provide the information necessary to verify that a particular container had not been accumulating unwanted material for more than six months in the laboratory and, therefore, would not allow EPA or an authorized State to determine whether the laboratory was in compliance with Subpart K. Therefore, the dating requirement for each container of unwanted material has been retained in today's final rule.

Finally, we have retained the requirement from the proposal that the label associated with the container must contain information sufficient to make a hazardous waste determination. As discussed above, this requirement provides flexibility to eligible academic entities in that this information can be on the label that is "affixed or attached to" the container, but it must at least be on the label that is "associated with" the container. However, we stress that "information sufficient" to make a hazardous waste determination, whether that information is "associated with" or "affixed or attached to" containers of unwanted materials, must ensure that a hazardous waste determination of the contents can be made. Examples of information sufficient to make a hazardous waste determination include, but are not limited to: the name and/or description of the chemical contents or composition of the unwanted material, or, if known, the product of the chemical reaction, whether the unwanted material has been used or is unused, and a description of the manner in which the chemical was processed, if applicable.

In summary, today's rule finalizes the proposed performance-based two-tiered labeling structure, but has modified it to address a number of comments received on the proposal. The first part of the final labeling requirement consists of information that must be "affixed or attached to" the container. The information must consist of the words "unwanted material" or another equally effective term that is used consistently by the eligible academic entity and is identified in Part I of the eligible academic entity's LMP. Additionally, the label must contain sufficient information to alert emergency responders to the contents of the container. The second part of the final labeling requirement consists of information that must be "associated with" the container in some manner, which could include affixing or attaching it to the container. The information required includes the date that unwanted material first begins accumulating in the container, and information sufficient to allow trained professionals to determine whether the unwanted material is a solid and hazardous waste, as well as assign the proper hazardous waste code(s), pursuant to § 262.11. For more detail on specific labeling requirements for when volume limits are exceeded in the laboratory and after hazardous waste determinations are made, see section III.C.5, Removal Frequency of Unwanted Materials and Section III.C.6, Making the Hazardous Waste Determination, respectively.

3. Container Standards

When accumulating unwanted materials in the laboratory, proper container management is essential to protect human health and the environment. We proposed performance-based container management standards, requiring that the containers be stored to prevent leaks, spills, emissions to the air, adverse chemical reactions, and to avoid dangerous situations that may result in harm to human health and the environment. The proposed container management standards also included two specific standards as a means to achieve these goals: (1) Containers must be kept in good condition and damaged containers must be replaced; and (2) containers must be compatible with their contents.

In the preamble to the proposed rule, we solicited comment on two alternative approaches for container management. First, we requested comment as to whether the rule should include more specific container management requirements in the regulations, potentially going beyond what was proposed. In the preamble, we included some examples of specific requirements we were considering, such as secondary containment and imposing a minimum safe distance for the storage of incompatibles. Another example that was discussed in the preamble was requiring that containers of unwanted material always be closed during storage, except for cases of in-line collection. An in-line collection system is a piece of laboratory equipment, such as a high performance liquid chromatograph (HPLC) that is directly connected to a container that collects unwanted material, including hazardous waste, typically by tubing. The tube carries the waste from the equipment directly into the container.

The second alternative approach for container management that we requested comment on was the concept of a "working container." In the preamble to the proposal, a working container was defined as a small container (one gallon or less), managed under the control of a laboratory worker and used at a bench or work station, whose contents are emptied into a container of unwanted material at the end of the procedure. Similar to the previous alternative, we indicated that if we added "working container" to the final rule, we would also add a more specific requirement that any container of unwanted material that does not fit the definition of working container, be closed at all times, except when necessary to add or remove unwanted materials.

We received many comments on the proposed container management standards. Most commenters were supportive of the performance-based container management standards in lieu of the more prescriptive standards. Commenters argued that performance-based container management standards

would allow them the flexibility to tailor the standards to laboratory-specific operations. On the other hand, a few State commenters preferred more prescriptive container management standards as they found them easier to enforce than performance-based standards. However, we decided to maintain the performance-based container standards because we believe they are protective of human health and the environment, while providing flexibility to eligible academic entities.

Today's rule finalizes the proposed container management standards with one minor change and adds a new requirement. The requirement that eligible academic entities must properly manage containers of unwanted material to assure safe storage of the unwanted materials, to prevent leaks, spills, emissions to the air, adverse chemical reactions, and dangerous situations that may result in harm to human health or the environment has remained the same from proposal. Similarly, containers must be compatible with their contents. A minor clarification was added to the requirement that damaged containers be replaced. Several commenters requested that the Agency add language clarifying that replacing damaged or degraded containers is not the only method of reducing their threat. We agree and have added the requirement in the final rule that damaged or degraded containers be replaced, overpacked, or repaired, in order to prevent releases of the container's contents into the environment. An example of overpacking a container is taking a damaged container of unwanted materials and placing it into a second container in good condition and then packing the second container with absorbent filler similar to the practice of lab-packing. An example of repairing a damaged container would be if a small leak appears in the cap of a container of unwanted material, and a laboratory worker covered the broken cap with a polymer film.

Many commenters also provided comments in support of the concept of a "working container," although a few commenters were opposed to allowing a "working container" in the final rule. Opponents believed that the approach is not protective of the environment, while supporters felt that the prescriptive requirement that containers be kept closed, except when adding or removing waste, which we said would be added if a working container provision were added to the final rule, is easier to enforce. In addition, commenters in support of adding a working container wrote that this concept "recognizes the fact that many unwanted laboratory materials are actively accumulated in small containers at a bench, work station, or fume hood." Academic and State commenters supported the inclusion of a working container provision because it allows containers that are in use for collecting unwanted materials to be open while the experiment is running, while at the same time it provides protection by requiring that non-working containers be closed at all times, except when adding, removing, or consolidating unwanted materials.

After evaluating all of the comments, we have decided to include a provision in the final rule allowing laboratories to use "working containers." As discussed in the definition section above (section III.B.3), a working container is defined in the final rule as a small container (i.e., two gallons or less) that is used at a laboratory bench, hood, or other work station in order to collect unwanted material from a laboratory experiment or procedure. We have added to the container management standards a requirement that a working container may be open until the end of the procedure or work shift, or until it is full, whichever comes first, at which time it must either be closed or the contents must be emptied into a container that is closed after the contents of the working container are added.

In reference to the other containers of unwanted materials in the laboratory (i.e., non-working containers), several commenters opposed the requirement that these non-working containers remain closed, except to add or remove unwanted material. We disagree with these commenters. We believe that the requirement that containers remain closed, except when adding, removing, or consolidating unwanted material is straightforward and is protective of human health and the environment. Requiring that containers remain closed, except in certain instances, will prevent or mitigate accidents in the laboratory that could otherwise lead to spills or releases.

Commenters identified two additional situations (besides working containers) where they believed a requirement to keep containers closed is problematic. One commenter stated, "* * * tightly capping containers after addition of waste is sometimes impractical and dangerous. Capping systems should be allowed which preclude excessive evaporation while providing for displacement of air while filling from in-line systems such as an HPLC or allow pressure relief from wastes which have not fully reacted." The comment about "in-line" collection of unwanted materials is consistent with what the Agency has heard over the years through our Project XL with the three New England colleges and universities, as well as through public meetings. In many cases, automated laboratory equipment will shut down if air is not able to escape from an in-line collection system because of a build-up of pressure. Another commenter stated, "* * * that the closed container rule may also have a negative effect by creating a compromised container in certain situations. Chemical reaction residues may react slowly over several days, thus building up pressure in a container. The semiconductor etching solution known as "piranha solution" is one example. Proper management of these solutions requires that the container be able to safely vent the excess pressure."

In response to the two public comments above, we have modified the container management regulations to add these two additional situations (besides working containers) in which containers are not required to be completely closed, because in these two situations keeping a container of unwanted materials closed may be problematic. Specifically, the final rule allows containers to be vented when it is necessary (1) for the operation of laboratory equipment, such as in-line collection, and (2) to avoid dangerous situations, such as the build-up of extreme pressure. Thus, as we have explained, we have determined that a combination of both performance-based and prescriptive approaches (as it relates to whether containers must be kept closed) is more protective of human health and the environment than performance-based requirements alone. The Agency believes it is preferable to maintain the requirement that containers remain closed, except when adding, removing or consolidating unwanted material in most instances, while allowing for a few specific instances in which it is not appropriate, rather than to eliminate the requirement for closed containers altogether. This is because such an approach provides the flexibility in specific situations where commenters have shown that requiring closed containers is inappropriate and does not compromise protection for all the other containers of unwanted materials that have no cause to be open. Furthermore, this approach is simpler for an eligible academic entity to implement and is more easily enforceable.

In summary, today's final rule contains container management standards that require that containers be managed to assure the safe storage of the

unwanted material to prevent leaks, spills, emissions to the air, adverse chemical reactions, and dangerous situations that may result in harm to human health or the environment. Specifically, today's final rule requires that containers be maintained and kept in good condition and that damaged containers be replaced, overpacked, or repaired. Additionally, containers must be compatible with their contents to avoid reactions between the contents and the container and must be made of, or lined with, material that is compatible with the unwanted material so that the container's integrity is not impaired. Finally, containers of unwanted material must be kept closed at all times, with three exceptions: (1) When adding, removing or consolidating unwanted material, (2) when using working containers, which may be open until the end of the procedure or work shift, or until they are full, whichever comes first, and (3) allowing containers to be vented if necessary for the proper operation of laboratory equipment, such as with in-line collection, or to prevent dangerous situations, such as build-up of extreme pressure.

4. Training Requirements

The Agency intends to provide flexibility in the content and method of training for laboratory workers and students, while ensuring that unwanted materials are properly managed and that an eligible academic entity is in full compliance with the Subpart K requirements. Thus, EPA has included performance-based standards in today's final rule for training of laboratory workers and students.

EPA proposed that under Subpart K a college or university be required to provide training or instruction to all individuals working in the laboratory. Specifically, the proposal required that laboratory workers be trained commensurate with their duties so they understand the requirements of Subpart K and can implement them to ensure the laboratories' compliance with the requirements of the rule. In addition, we proposed that students in a laboratory where unwanted material is generated must receive instruction relevant to their activities in the laboratory. We proposed that instruction may include proper container labeling, collection procedures for unwanted material, and emergency response procedures. Further, the proposal required that on-site transfers of unwanted materials (which ultimately may prove to be hazardous wastes) and the hazardous waste determination could only be conducted by RCRA-trained individuals (called "trained professionals" in the final rule). The proposal indicated that a college or university could provide training and instruction for laboratory workers and students in a variety of ways, including, but not limited to, instruction by the professor or laboratory manager before or during an experiment, formal classroom training, electronic or written training, on-the-job training, or written or oral exams. Finally, the proposal required that a college or university that is an LQG must maintain training records for the laboratory workers that are sufficient to determine whether such workers have been trained.

Many commenters expressed general or partial support for the proposed performance-based training and instruction requirements, in lieu of prescriptive training requirements. However, many commenters requested that the training requirements be made more performance-based and include greater flexibility in training approaches (e.g., use of postings and signs). In contrast, a few commenters expressed support for a more prescriptive approach to training and instruction, including a clear and concise required curriculum for RCRA training in order to make the Subpart K requirements more meaningful.

We maintain that performance-based training requirements are appropriate for laboratory workers and students. Eligible academic entities should have the flexibility to offer training to laboratory workers and students through their choice of an effective method, provided the information is sufficient and thorough enough to ensure proper management of the unwanted materials by laboratory personnel in order to avoid dangerous situations. However, EPA disagrees that merely posting a sign would adequately instruct laboratory workers and students on the proper and safe management of unwanted materials, believing that some active training is necessary to ensure that all laboratory personnel fully comprehend their duties and assignments with respect to unwanted materials management. As stipulated in the proposal and supported by comments, today's final rule maintains that training methods may consist of a variety of approaches, including formal classroom or electronic on-line training, on-the-job training, or instruction by a professor or manager. Use of postings or signs may supplement and serve as a reminder of the more formal training, but does not itself constitute "training" for the purposes of today's final rule. While we do not believe the use of postings or signs alone constitute "training," EPA believes that the use of signs and postings to supplement and reinforce the knowledge gained from the required training program would be beneficial. Training must be sufficient to enable individual laboratory workers and students in the laboratory to conduct their duties in an environmentally safe manner and in accordance with all applicable regulations.

Many commenters stated that all training and instruction should be commensurate with the duties and activities of the personnel, irrespective of their status as students or laboratory workers. We concur with these commenters and thus the final rule has been modified to reflect that principle. Therefore, as opposed to the proposed rule, which distinguished between training for laboratory workers and instruction for students, today's final rule requires that both laboratory workers and students be trained commensurate with their duties. Therefore, commensurate training constitutes training aligned with an individual's assigned duties and the degree of involvement with the management of the unwanted materials. EPA believes that training commensurate with ones duties should correspond with the level of knowledge or practical application needed by individuals to perform their assigned functions or fulfill their job or enrollment classification (i.e., professor, researcher, graduate student, undergraduate student) within an eligible academic entity.

We believe that training commensurate with the duties for students constitutes familiarization or transference of knowledge to perform tasks and assignments in the laboratory in a safe and environmentally sound manner for unwanted materials handling, in accordance with the Subpart K requirements. Specifically, students conducting experiments will come in contact with and use a variety of chemicals which may potentially become hazardous waste following experimentation or may react adversely if incorrectly stored or managed. Students in a supervised classroom setting generally would require less training than students in a research setting. In a teaching laboratory, containers for the unwanted materials that are generated during an experiment are typically pre-labeled by the laboratory instructor. Therefore, students in a supervised classroom setting should be trained to place the products of experiments in the appropriate containers of unwanted materials. On the other hand, students conducting research where such

containers are not provided should be trained to store unwanted materials in containers to minimize risk and label containers with the words "unwanted materials," or another equally effective term, so that EH&S staff know that the containers are not longer wanted, as well as the contents of the container and the accumulation start date. There is also the potential for dangerous or hazardous situations, such as explosions, fires, spills, or other hazards from mishandling chemicals of unwanted materials which would require emergency response actions by qualified personnel. It is not necessary that students have the capability of an emergency response coordinator or other qualified individual to respond and perform emergency procedures and other remedial actions. Rather, it is sufficient for students to know how to correctly handle and manage unwanted materials to avoid dangerous or hazardous situations and in case of an emergency, know the correct information or procedures to follow, such as how to contact emergency responders and when to evacuate the laboratory.

Training commensurate with the duties for laboratory workers and graduate students working as laboratory workers may be more formalized or technical instruction whereby upon completion of training, personnel are qualified to perform the functions of their job descriptions or assigned duties. For the purpose of Subpart K, laboratory workers must receive training or technical instruction in direct correlation to their individual job description or assignments. Under Subpart K, the definition of "laboratory worker" includes a broad array of job classifications with different duties, such as supervisor or manager of a laboratory, faculty, staff, researcher, post-doctoral fellows, interns, technicians and principal investigators. Examples of training for laboratory workers commensurate with ones duties include, but are not limited to, training to perform their duties to comply with the Subpart K labeling and container management standards, supervising students in the laboratory, preparing containers for transport, emergency response duties, and/or other duties, as appropriate.

Several commenters expressed concern about the requirement that personnel conducting on-site transfers of unwanted materials be RCRA-trained. The commenters stated that this requirement is unnecessary and does not recognize that these entities have been safely transferring hazardous waste on-site for years and that a person can safely transfer unwanted materials with appropriate safety training. In contrast, the Agency heard from one commenter stating that students and non-RCRA trained staff should not transfer hazardous wastes outside of the laboratory. We believe that the person transferring unwanted materials on-site must be a "trained professional" according to the definition in § 262.200, which requires that the individual complete the applicable RCRA training requirements of § 265.16 for LQGs, or § 262.34(d)(5)(iii) for SQGs and CESQGs. Despite the fact that commenters stated otherwise, this requirement is consistent with the Agency's existing interpretation for on-site transfers of hazardous waste (see memo March 17, 2004, Springer to Regions, RCRA Online #14703). Furthermore, we believe that this level of training is "commensurate" with the duties of the individual transferring the unwanted materials on-site, which are to transfer the materials safely, to avoid spills or releases, and to respond properly to any releases, among other things. Specifically, we believe that the on-site transfer of unwanted materials outside of the laboratory should be conducted by an individual who has received the full complement of RCRA training in accordance with the eligible academic entity's generator status, to ensure that that individual is knowledgeable about the RCRA requirements, especially with regard to the compatibility of chemicals, spill prevention, and emergency response. This is especially important considering that the unwanted materials from many individual laboratories will often be collected together during the on-site collection and transfer of those materials.

We also heard from two commenters who emphasized the importance of training for personnel who make the hazardous waste determination at an eligible academic entity. We agree with the commenters, and, as proposed, require in today's final rule that the individual making the hazardous waste determination, whether it is in the laboratory, at the on-site CAA or on-site TSDF, be a trained professional who has the full complement of RCRA training in accordance with the eligible academic entity's generator status (SQG status for CESQGs). Individuals making the hazardous waste determination must be aware of all applicable RCRA requirements in order to complete their duties, which are to classify the unwanted materials properly as solid and/or hazardous wastes and to apply the correct hazardous waste code(s). Thus, we are continuing to require that the person making the hazardous waste determination be a "trained professional" according to the definition set out in § 262.200.

Therefore, today's final rule maintains the requirement that trained professionals make the hazardous waste determination and transfer unwanted materials (or hazardous wastes, if the hazardous waste determination is made in the laboratory) outside the laboratory and that the trained professionals must meet the existing RCRA generator training requirements applicable to the eligible academic entity's generator status. In addition, today's final rule has added the requirement that trained professionals at CESQGs must receive RCRA training in accordance with the training requirements for SQGs, at a minimum (see definition of "trained professional" in Section III.B.2 of today's preamble, as well as § 262.200).

Several commenters described other regulatory bodies (e.g., DOT; U.S. Nuclear Regulatory Commission (NRC); Occupational Safety and Health Administration (OSHA)) that require training on hazardous chemicals, emphasizing that Subpart K's training requirements should avoid redundancy with other required training. Some of these commenters stated that they would use OSHA training to satisfy the proposed Subpart K training requirements. In contrast, we heard from one commenter expressing concern that there are no other appropriate regulatory requirements for training specific enough to be appropriate for RCRA because they do not effectively cover the RCRA hazardous waste determination. The Agency believes that neither the "traditional" RCRA generator regulations nor Subpart K prohibits the use of other training programs to satisfy the training requirements of Subpart K, provided the other training program(s) address the relevant RCRA requirements for trained professionals, and the relevant Subpart K requirements to train laboratory workers and students commensurate with their duties.

Several commenters argued that eligible academic entities should be able to provide evidence of training, in lieu of training records, which they believe are too burdensome to keep. Furthermore, a few commenters advocated eliminating the proposed recordkeeping requirements for LQGs, arguing that such requirements would be more burdensome than the existing requirements for satellite accumulation areas, which do not require documented training for personnel. The Agency recognizes that the satellite

accumulation area regulations do not require documented training for personnel and is not requiring that records be retained for training of students in the laboratory. However, we believe it is appropriate that eligible academic entities that are LQGs retain the records for training of laboratory workers in order to demonstrate that the laboratory worker received the necessary training. The records that are required for laboratory workers at LQGs are the same that are required for trained professionals at eligible academic entities that are LQGs (and which they are subject to today), both of which reference the current LQG training regulations in § 265.16.

Finally, we heard from a few commenters who stated that the maintenance of training records for trained professionals or laboratory workers at SQGs is unnecessary. We did not propose to require such recordkeeping for training of laboratory workers or trained professionals at SQGs, nor has the Agency included such a requirement in today's final rulemaking.

In summary, under today's final rule, eligible academic entities managing their laboratory hazardous wastes under Subpart K must provide training for laboratory workers and students, and the training must provide sufficient information so that laboratory workers and students can understand and implement the requirements of Subpart K, commensurate with their duties. An eligible academic entity can provide training and instruction for laboratory workers and students in a variety of ways, including, but not limited to, instruction by the professor/manager before or during an experiment, formal classroom training, electronic/written training, on-the-job training, or written or oral exams. LQGs managing their laboratory waste under Subpart K must maintain documentation demonstrating that the training has been provided to laboratory workers and trained professionals. Documentation demonstrating training can include, but is not limited to, sign-in or attendance sheet(s) for training session(s), syllabi for training session(s), certificate(s) of completion, or test results. Finally, the training requirements in today's final rule restrict who may conduct certain activities under Subpart K. Specifically, only "trained professionals," as defined in § 262.200, may transfer unwanted materials on-site and make the hazardous waste determination, pursuant to § 262.11, for unwanted material.

5. Removal Frequency of Unwanted Materials

Currently, most laboratories operate under what is commonly referred to as the satellite accumulation area (SAA) regulations (see 40 CFR 262.34(c)). At SAAs, removal of hazardous waste is dependent on the volume of hazardous waste that is accumulated in each SAA. That is, once more than 55 gallons of hazardous waste (or more than 1 quart of acutely hazardous waste) is accumulated in an SAA, a generator has three days to remove the excess of 55 gallons (or excess of 1 quart of acutely hazardous waste) from the SAA and transfer it to an on-site CAA or TSDF, or transport it off-site.

In large part because colleges and universities explained to us that they rarely accumulate 55 gallons of hazardous waste in a laboratory, except during a laboratory clean-out, in Subpart K we proposed to require the removal of unwanted materials from laboratories based primarily on time, and secondarily by the volume of unwanted materials. Specifically, we proposed that all unwanted materials, including reactive acutely hazardous unwanted materials (as defined in the proposal), generated in laboratories must be removed from the laboratory at a regular interval that is specified in the entity's LMP, and that such interval for routine removals must not exceed six months. College and university representatives had told EPA that tying the removal of laboratory wastes with the academic calendar would facilitate removal of laboratory wastes that accumulate during the course of the semester with a minimum of disruption. Therefore, the Agency believed that six months was an appropriate length of time to allow colleges and universities to schedule routine removals of unwanted materials at the end of each semester.

We also proposed that if a laboratory accumulates more than 55 gallons of unwanted materials (including reactive acutely hazardous unwanted materials) prior to the regularly scheduled removal specified in the entity's LMP, then all of the unwanted materials, including the reactive acutely hazardous unwanted materials, must be removed from the laboratory within ten calendar days of exceeding 55 gallons, or at the next regularly scheduled removal, whichever occurs first. For reactive acutely hazardous unwanted materials, we proposed that if a laboratory accumulates more than 1 quart prior to the regularly scheduled removal, then the reactive acutely hazardous unwanted materials would have to be removed from the laboratory within ten calendar days of exceeding 1 quart, or at the next regularly scheduled removal, whichever occurs first. The Agency proposed that the reactive acutely hazardous unwanted materials be subject to the 1-quart volume limit for accumulation in the laboratory, instead of the 55-gallon limit, because when these reactive chemicals are stored for long periods, they can become unstable, posing an extreme danger because these reactive chemicals have the potential to cause significant harm to laboratory personnel and property.

Many commenters generally supported the shift to the time-driven removal of unwanted materials from laboratories. However, they also requested that the maximum time between regularly scheduled removals be lengthened from six months to a year, or an "academic year," which commenters defined as "the 11–13 month period that corresponds to a college or university's annual teaching and research activities." Some commenters argued that six months was too frequent because some laboratories generate very small quantities of unwanted material in that time period. While some laboratories may generate small quantities of unwanted material, we have determined, based on all the available information, to keep six months as the maximum time between regularly scheduled removals.

We have retained six months as the maximum time between regularly scheduled removals of unwanted materials from the laboratory for several reasons. First, we believe that implementing regular removals on the basis of an "academic year" could be confusing. Second, as we indicated in the preamble to the proposed rule, our goal is to have unwanted materials removed from laboratories at least once each semester. One commenter indicated that a schedule that allows removals on a semester basis is preferred by stating, "colleges and universities generally use the semester's end to encourage laboratory workers and students to have unwanted materials removed from their laboratories before leaving campus. This practice reduces the risk that unknown materials will be left behind by a student or laboratory worker who does not return the following semester. Also it limits the amount of waste material stored in laboratories during the break, when fewer people are around to monitor or be aware of the conditions in the laboratory." Finally, as discussed in the proposal, we do not believe that allowing unwanted materials to accumulate for longer than six months

would reduce risk to laboratory personnel and provide the benefits to human health and the environment to the same extent and therefore the anticipated benefits from moving to a time-driven rather than a volume-driven approach would be diminished.

We realize that some laboratories will not generate any unwanted materials during a six month period and we do not intend for EH&S personnel or other staff or contractors to make a trip to the laboratory if they know that the laboratory does not have any unwanted materials. The eligible academic entity must describe in Part II of its LMP how it will determine whether a removal of unwanted material is necessary at each individual laboratory. For example, a form or an e-mail could be sent to each laboratory asking whether the laboratory has any unwanted material accumulating and the EH&S could respond accordingly. Eligible academic entities have flexibility with respect to how they intend to comply with the requirements for regular removals of unwanted materials. However, each eligible academic entity is responsible for ensuring that it meets the time-driven requirement (i.e., every six months) for the method it has selected for removing unwanted materials from the laboratory. The accumulation start date associated with each container (or affixed or attached to each container, if that is preferred) of unwanted material is intended to be used as the mechanism for determining compliance with regularly scheduled removals. Of course, unwanted materials may always be picked up with greater frequency than specified in either the regulations or the eligible academic entity's LMP.

A number of commenters expressed concern over the requirement to remove "all" containers of unwanted materials from the laboratory either during a regularly scheduled removal or when the volumes have been exceeded, because this would require partially-filled containers to be removed from the laboratory, which could require the use of more containers. Many of these commenters requested that EPA modify the requirement to remove "all" unwanted material from the laboratory to require that only full containers of unwanted material have to be removed from the laboratory.

We recognize the commenters' concerns regarding the requirement to remove "all" unwanted materials from the laboratory during regularly scheduled removals or when volumes have been exceeded. However, we do not consider the alternative suggested by commenters—to require that only full containers of unwanted material have to be removed from the laboratory—to be practical. It would be easy to circumvent the intent of the regulations for regular systematic removals of unwanted materials from the laboratory by simply not completely filling containers of unwanted materials. In this scenario, the removal of unwanted materials from the laboratory would be based primarily on volume, rather than based on EPA's preferred approach of time. We prefer the time-driven approach, with the maximum volumes as a backup because, for most laboratories, it is rare to accumulate 55 gallons of unwanted material. Without a time limit, unwanted materials could remain in the laboratory for extended periods of time. As for the concern about using too many containers, consolidation of compatible materials is allowed within in a laboratory, as well as at an on-site CAA or on-site TSDF, which could then return some or most of the reusable containers for use in collecting unwanted material.

One commenter suggested adopting a system that mirrors the Universal Waste system for tracking the amount of time that unwanted materials remain in the laboratory. This commenter suggested that a laboratory should be allowed to demonstrate the length of time that each container has been accumulating unwanted material and that EPA should base the removal on how long each container is in the laboratory. We also heard from many commenters that we should be more flexible in the removal provisions.

In response to these comments, there are now two alternative approaches allowed for regular removals of unwanted materials. The first approach is the one that was proposed. That is, all containers of unwanted material must be removed from the laboratory on a regular basis, not to exceed six months. Under this approach, however, it is possible that a container that began accumulating unwanted materials the day before the regularly scheduled removal would be required to be removed. This approach is easy to implement, as all containers of unwanted material would be removed from the laboratory, regardless of when they began accumulating unwanted materials.

The second alternative being added today allows the removal of containers of unwanted material using a "rolling" six months approach. That is, no individual container of unwanted material could remain in the laboratory for more than six months. We believe this alternative approach provides additional flexibility that many commenters sought by adding a choice of implementation methods for the removal of unwanted materials, while maintaining the intent of the regulations by requiring regular, systematic, time-driven removals of unwanted materials. Since there is already a requirement that all containers have an accumulation start date associated with them, this approach would rely on checking the dates associated with each container in order to determine which containers would have to be removed from the laboratory. Individual containers could potentially remain in the laboratory longer than under the other alternative approach and therefore, would be more likely to be full or nearly full. On the other hand, this approach would likely require more frequent removals from the laboratory to ensure that no container accumulating unwanted materials remains in the laboratory longer than six months.

Each eligible academic entity choosing to be subject to Subpart K must select and identify in Part I of its LMP, the approach it chooses for complying with regular removals of unwanted materials from the laboratory. In Part II of its LMP, the eligible academic entity must describe how it plans to comply with the approach it has chosen for regular removal of unwanted materials from the laboratory.

Under the SAA regulations of § 262.34(c), if the maximum volumes are exceeded, the excess of 55 gallons of hazardous waste (or 1 quart of acutely hazardous waste) must be removed from the area within three days. We have frequently heard that the three-day time limit was problematic, especially during long weekends and holidays. Under Subpart K, we proposed to extend from three days to ten calendar days the removal of unwanted materials from the laboratory when the maximum volumes are exceeded. Many commenters supported this change, although a few commenters believed that three days was sufficient. One State commenter suggested that laboratories should remove their unwanted materials before the maximum volumes are reached, which would remove the need for providing additional time for the removal of unwanted materials from the laboratory. We have decided to retain ten calendar days for removing unwanted materials from the laboratory when the maximum volumes are exceeded. We believe that ten calendar days will provide sufficient flexibility to respond to the occasions when 55 gallons of unwanted material (or 1 quart of reactive acutely hazardous unwanted material) is exceeded, while maintaining protection to human health and the environment.

With regard to which unwanted materials must be removed from the laboratory when maximum volumes are exceeded, we proposed that when a laboratory exceeds 55 gallons of unwanted material, it must remove all unwanted materials—including the reactive acutely hazardous materials. This is because all reactive acutely hazardous materials are unwanted materials and should be considered in calculating whether the 55 gallons has been exceeded. On the other hand, we proposed that when a laboratory exceeds 1 quart of acutely reactive unwanted material, it must remove only the reactive acutely hazardous unwanted material, not all containers of unwanted material, because not all unwanted materials are reactive acutely hazardous unwanted materials, and therefore should not be subject to the lower accumulation limits in the laboratory. We have retained these requirements in today's final rule, with some minor rewording to clarify our intent. Of course, in the case where a laboratory exceeds 1 quart of reactive acutely hazardous unwanted material, an eligible academic entity may choose to remove all unwanted materials from the laboratory. If a trained professional has to make a trip to the laboratory to remove reactive acutely hazardous unwanted materials in excess of 1 quart, it may be more efficient to remove all unwanted materials at the same time, even if they are not required to be removed at that time.

We proposed that if a laboratory accumulates more than 55 gallons of unwanted material, then all containers of unwanted materials (including reactive acutely hazardous unwanted materials) must be dated with the date the 55 gallons is exceeded. We also proposed that if a laboratory accumulates more than 1 quart of reactive acutely hazardous unwanted material, then all containers of reactive acutely hazardous unwanted materials must be dated with the date the 1 quart is exceeded. This date is necessary to determine whether the ten calendar days had elapsed and, therefore, when the containers must be removed from the laboratory. In the proposed regulations, we did not specify which label this date must go on—the label that is "affixed to or physically accompanies" (which has been changed to "affixed or attached to" in the final rule) the container, or the label that is "associated with" the container. However, in the preamble to the proposed rule, we did indicate that, as with the requirement to date containers with their accumulation start date, this date may be included on either label—the label that is "affixed or physically accompanies" the container, or the label that is "associated with" the container (see 71 FR 29730). In today's final rule, we have revised the regulatory text to be consistent with the preamble discussion from the proposed rule. Therefore, when 55 gallons of unwanted material (or 1 quart of reactive acutely hazardous unwanted material) is exceeded in a laboratory, the date that the maximum volume is exceeded may be added to either type of label. That is, it may be added to the label that is "affixed or attached to" the container, but at a minimum it must be added to the label that is "associated with" the container.

One commenter pointed out that if an eligible academic entity does not have an on-site CAA and one of its laboratories exceeds the specified volume limits, the generator must be prepared to have a vendor ship the unwanted materials from the laboratory to an off-site TSDF within 10 calendar days. We agree with the commenter's assessment and point out that this is an increase in the time allowed under the current SAA regulations, under which the same generator would have only three days in which to ship the hazardous waste off-site (or come into compliance with the requirements for 90/180/270-day generator accumulation areas).

One commenter suggested that in order to be consistent with the SAA regulations, the 55-gallon limit should be on a "per wastestream" basis, rather than a "total volume" basis. We disagree with the commenter and find the commenter's interpretation of the SAA regulations to be incorrect. To the contrary, EPA has consistently interpreted the SAA regulations such that 55 gallons is based on a total volume of all wastestreams combined (see memo from Robert Springer, Director, OSW to EPA Regional Directors, March 17, 2004, RCRA Online #14703). Thus, Subpart K is consistent with the SAA regulations with respect to this provision.

a. Reactive Acutely Hazardous Unwanted Materials

Under the SAA regulations of § 262.34(c), if more than 1 quart of an acutely hazardous waste listed in § 261.33(e) is accumulated, the excess of 1 quart must be removed from the SAA within three days and taken either to an on-site CAA or TSDF, or transported off-site. Section 261.33(e), which is commonly referred to as the "P list" of hazardous wastes, currently comprises 124 chemicals. The P-list is a list of commercial chemical products that are considered acutely hazardous waste when discarded because they are considered hazardous even when managed in small quantities. Under Subpart K, the Agency is reducing the number of chemicals that are subject to removal from the laboratory at the 1-quart threshold from all 124 chemicals on the P-list to the six chemicals that are on the P-list because they are reactive. We focused on the reactive chemicals on the P-list because, as reactive chemicals, they have the potential to cause significant and immediate harm to individuals and property. We are finalizing this provision as proposed, along with the change to the definition of reactive acutely hazardous unwanted material that was previously discussed in section III.B.2 of today's preamble (also see § 262.200).

We also would like to clarify that this regulatory revision—that is, the number of P-listed chemicals that are subject to removal from the laboratory if they exceed the 1-quart threshold—does not impact other aspects of the hazardous waste regulations. That is, we have not changed the regulations with respect to which chemicals are identified as acutely hazardous wastes or the 1 kg/month threshold for becoming an LQG. Therefore, the entire P-list must be considered when a trained professional makes the hazardous waste determination for unwanted materials. If an eligible academic entity generates more than 1 kg/month of acutely hazardous waste, it is an LQG for that calendar month, except if the acutely hazardous waste is from a laboratory clean-out conducted in accordance with § 262.213 of today's rule, in which case it need not be counted toward the eligible academic entity's generator status. See section III.C.7 of today's preamble for a discussion of the laboratory clean-out provisions, as well as § 262.213.

b. Transferring Unwanted Materials or Hazardous Wastes From the Laboratory to an On-site CAA or On-site TSDF

To ensure that unwanted materials removed from the laboratory are brought promptly to their next destination, such as an on-site CAA or TSDF, the Agency proposed to require that when unwanted materials (or hazardous wastes, if the hazardous waste determination was made in the laboratory) are removed from a laboratory, they must be brought "directly" from the laboratory(ies) to an on-site CAA or TSDF. We sought comment on whether it was necessary to define "directly" or to replace it with a more specific time-frame, such as a same day requirement.

We received several comments in support of defining the term "directly." Other commenters, however, stated that it was not necessary to define the term, especially given our preamble discussion in the proposed rule. In reviewing the comments, we have decided not to add a regulatory definition of "directly" and will simply reiterate and expand upon the preamble discussion from the proposed rule.

In general, if the unwanted material is sent from the laboratory or laboratories to the on-site CAA or TSDF within the same work day, this would meet the intent of the regulation. We realize that many eligible academic entities will collect unwanted materials from many laboratories at a time, in series, and will deliver all the unwanted materials to an on-site CAA or TSDF at the end of the collection process. This would be an acceptable practice under today's regulations, provided the unwanted materials are in continuous custody of the trained professional that is collecting and transferring the unwanted materials and they are delivered to the on-site CAA or TSDF at the end of the work shift. It is not necessary to bring the unwanted material from each individual laboratory directly to the on-site CAA or TSDF and then in a separate trip bring the unwanted materials from the next laboratory. Such an arrangement would only increase the amount of time that trained professionals would spend in removing unwanted materials from laboratories and that unwanted materials would spend in transport, with no benefit. On the other hand, if unwanted materials were left on a cart in the hallway overnight, this would not be an acceptable practice and would not meet the intent of the regulation.

c. On-site Consolidation Areas

Under the existing regulations, generators may accumulate hazardous waste in two types of areas without having a permit or interim status: (1) An SAA or (2) an on-site generator accumulation area (≤90, ≤180 or ≤270 day areas).[7] Under Subpart K, eligible academic entities also may accumulate unwanted materials and hazardous wastes in two types of areas without having a permit or interim status: (1) Laboratories (in lieu of SAAs) and (2) an on-site CAA ("CAA" is a term that has been defined under Subpart K, but is the same as what has sometimes been called "generator accumulation areas" or "90/180/270-day areas").

At proposal, we solicited comment on whether an additional accumulation area beyond what is already allowed in the rules should be created to allow for the consolidation of unwanted materials after they have been removed from the laboratory. We received many comments in favor of establishing a consolidation area as a new type of area for the accumulation of unwanted materials after such material has been removed from the laboratory. Some commenters even included suggested regulatory text for how these new consolidation areas would be regulated, including specific requirements for labeling/dating, container management, training, removal frequency, hazardous waste determinations, inspections, spill response, signage, and documentation in the LMP. A few commenters, however, opposed the creation of another type of accumulation area, primarily because they were concerned that the addition of another accumulation area would cause confusion.

After analyzing the comments and considering the flexibility that is already provided in the regulations, we have decided not to establish a "consolidation area" as another type of accumulation area for unwanted materials. We agree with the commenters that argued that adding another type of accumulation area with another set of standards would be confusing for implementers and enforcers with little, if any, benefit. We believe that the flexibility that is already in Subpart K can provide the benefits of a consolidation area, without establishing a new regulatory category for them.

It has been EPA's regulatory interpretation that hazardous wastes can not be moved from one SAA to another (see memo from Robert Springer, Director, OSW, to EPA Regional Directors; March 17, 2004, RCRA Online #14703). One reason for this prohibition is that it would be easy to circumvent the 55-gallon limit in an SAA by moving hazardous wastes from one SAA to another SAA and thus remain below the volume limits, allowing hazardous wastes to remain in the SAA indefinitely.

In today's rule, however, the removal of unwanted materials is based on time primarily, and volume secondarily. Containers must be marked with the date that unwanted materials first begin to accumulate. This requirement is necessary in order to verify that unwanted materials are being removed from the laboratory on a regular basis. The requirement for a date to be associated with each container provides laboratories with additional flexibility that does not exist in SAAs. That is, under Subpart K, unwanted materials can be safely consolidated within an on-site laboratory, such as in a chemical stockroom. As with all on-site transfers of unwanted material outside of a laboratory, the transfer of unwanted materials between laboratories must be accompanied by a trained professional. Further, any laboratory in which unwanted materials are consolidated from other laboratories is subject to the time and volume limits for all laboratories that are subject to Subpart K (i.e., if the laboratory accumulates more than 55 gallons of unwanted material (or 1 quart of reactive acutely hazardous unwanted material), the unwanted material must be removed from the laboratory within 10 calendar days). In addition, the date that an unwanted material first begins to accumulate in a container would remain the same, regardless of where the container is moved. In other words, no re-dating of a container would be permitted if it were moved to another laboratory or chemical stockroom. If the contents of two or more containers with compatible materials are combined into one container; however, the earliest date associated with the original containers must be used. The date that is associated with each container will allow inspectors to verify that containers are being removed from the laboratory on a routine basis not to exceed six months, as required. The 55-gallon volume limit will ensure that large quantities of unwanted materials are not consolidated without the additional protections required at CAAs.

We envision this flexibility to be particularly useful for eligible academic entities that do not have on-site CAAs. Commenters have indicated that by consolidating their unwanted materials in a laboratory or chemical stockroom themselves prior to a vendor's arrival, they can save money because the vendor will be able to collect unwanted materials from fewer laboratories, thus spending less time on-site. In such a situation, if an eligible academic entity (or the vendor) makes the hazardous waste determination in the laboratory, the eligible academic entity does not have to make the hazardous waste

[7] LQGs may accumulate hazardous waste for 90 days or less on-site without a permit or interim status, provided the provisions of § 262.34(a) (or § 262.34(g)–(i) for F006 recyclers; or § 262.34(j)–(k) for Performance Track members) are met. SQGs may accumulate hazardous waste for 180 days or less on-site without a permit or interim status, provided the provisions of § 262.34(d) and (f) are met. SQGs that must send their hazardous waste more than 200 miles for off-site treatment, storage, or disposal are allowed to accumulate hazardous waste for 270 days or less on-site without a permit or interim status, provided the provisions of § 262.34(d) and (f) are met (see § 262.34(e)).

determination when the unwanted material is removed from the first laboratory. Rather, the hazardous waste determination may be made when the unwanted material is removed from the final laboratory where the unwanted materials are consolidated, before it is sent off-site. Consolidating unwanted materials from multiple laboratories will provide another opportunity to consolidate unwanted materials that are compatible with one another, thereby allowing containers to be reused. We emphasize that trained professionals must transfer unwanted materials between laboratories and that any laboratory where unwanted materials are consolidated also is subject to the Subpart K requirements, including the time and volume limits.

6. Making the Hazardous Waste Determination

One of the primary benefits that Subpart K provides over the existing generator regulations is flexibility in where and when to make the hazardous waste determination. The Agency has consistently interpreted the existing generator regulations to require that the hazardous waste determination be made at the point of generation. We now recognize that making the hazardous waste determination at the point of generation is difficult and impractical in teaching and research laboratories, because of the high number of individual wastes, the variability in such wastes, and the transient nature of those generating many of the wastes, namely students. Therefore, in Subpart K, we proposed to allow the hazardous waste determination to be made in the laboratory before the unwanted materials are removed from the laboratory, or within four calendar days of arriving at an on-site CAA or interim status or permitted TSDF. We proposed that when the hazardous waste determination is made in the laboratory, it does not have to be made at the initial time that the hazardous waste is generated, as is required under the existing generator regulations, only that it must be made before the unwanted materials are removed from the laboratory. This alternative approach ensures that the hazardous waste determination is made by a trained professional, rather than by students, who would likely lack the necessary training, and allows much greater flexibility in where and when to make the hazardous waste determination.

In general, we received favorable comments about the flexibility provided by Subpart K with regard to making the hazardous waste determination. Today, we are finalizing the regulations pertaining to where and when the hazardous waste determination must be made with some minor changes to address the expansion of the applicability of the final rule to include eligible academic entities that are CESQGs. Eligible academic entities that are LQGs or SQGs will continue to have the choice of making the hazardous waste determination in the laboratory before the unwanted material is removed from the laboratory, or within four calendar days of arriving at an on-site CAA or interim status or permitted TSDF. Because CESQGs would not have an on-site CAA or TSDF, CESQGs are required to make the hazardous waste determination in the laboratory before the unwanted material is removed from the laboratory. See section III.C.9 of today's preamble for further discussion of how Subpart K is implemented at CESQGs.

At the time of the proposal, the Agency was aware that many smaller eligible academic entities contract with outside vendors to make the hazardous waste determination on their behalf. We expected that the smaller eligible academic entities, which do not have on-site CAAs or on-site TSDFs, would be relying on vendors to make the hazardous waste determination in the laboratory(ies) prior to the hazardous waste being brought off-site. As proposed, the regulations of Subpart K, specifically § 262.210, allowed for this scenario.

From comments, we learned that even eligible academic entities with on-site CAAs contract with vendors to make and/or confirm their hazardous waste determinations. Thus, we received many comments arguing against the requirement that the hazardous waste code(s) be placed on the container within four days of arriving at the on-site CAA because this essentially would preclude these entities from using vendors to make the hazardous waste determinations for them. These commenters believe that placing the words "hazardous waste" on the container is sufficient to indicate that a hazardous waste determination has been made and that they should be allowed to delay putting the hazardous waste code(s) on the container until the vendor comes to ship the hazardous wastes off-site.

We agree with these commenters that the practice of using vendors to make the hazardous waste determination should not be limited to those eligible academic entities that make the hazardous waste determination in the laboratory. Eligible academic entities that make the hazardous waste determination in an on-site CAA or interim status or permitted TSDF also should be able to use vendors to assist them with their hazardous waste determination. In today's final rule, therefore, the hazardous waste determination must still be made within four calendar days of arriving at an on-site CAA or TSDF, and for those unwanted materials that are hazardous waste, the words "hazardous waste" still must be added to the label that is affixed or attached to the container within those four calendar days. However, the Agency is amending the final rule so that eligible academic entities may delay assigning the hazardous waste code(s) until immediately prior to shipping the hazardous waste(s) off-site. When containers of unwanted materials arrive at an on-site CAA, they are subject to the CAA regulations appropriate to the site's generator status, including dating of the containers to calculate the 90/180/270 days that the containers may be accumulated on-site, and the container management standards. Likewise, when containers of unwanted materials arrive at an on-site TSDF, the unwanted material becomes subject to the terms of the facility's hazardous waste permit or interim status, as soon as it arrives. Therefore, since the containers must be managed as hazardous waste upon arriving at an on-site CAA or TSDF, we believe there is no decrease in protection of human health and the environment by delaying the addition of the hazardous waste code(s). The hazardous waste code(s) are necessary for determining the LDR regulations that apply to the hazardous wastes, but do not provide additional protection while the hazardous wastes are being accumulated on-site. We emphasize that, in all cases, regardless of generator status, or where the eligible academic entity chooses to make the hazardous waste determination, the hazardous waste determination must be made on-site before the unwanted material can be treated at an on-site CAA, or treated or disposed at an on-site TSDF, or sent off-site.

Many commenters stated that four calendar days was not sufficient to make the hazardous waste determination in an on-site CAA or TSDF. However, given that (1) the hazardous waste determination is usually required to be made at the point of generation and that the Agency is providing considerable flexibility in Subpart K for where and when to make the hazardous waste determination and (2) the initial hazardous waste determination should be more straightforward without the addition of the hazardous waste code(s),

we are not providing additional time. Thus, under today's final rule, the hazardous waste determination must be made within four calendar days of arriving at an on-site CAA or TSDF. Commenters also gave various suggestions for changing "calendar" days to "working" or "business" days. We believe that this would be confusing because not everyone shares the same "working" or "business" days. By relying on "calendar" days, we are providing consistency and clarity in calculating the timeframes within the rule.

The Agency solicited comment on whether the four calendar days should be included within the 90/180/270 day timeframe allowed for accumulation in an on-site CAA or whether it should be separate from these timeframes. Most commenters preferred the proposed option of including the four calendar days for making the hazardous waste determination as part of the 90/180/270 days allowed for the on-site accumulation of hazardous wastes. They expressed this preference, in large part, to avoid additional dating of containers that would be necessary if the four days were separate from, and additional to, the 90/180/270 days of accumulation time. Therefore, under today's final rule, a container's date of arrival at an on-site CAA will be used for two purposes: (1) Calculating the four calendar days allotted for making the hazardous waste determination and (2) calculating the maximum accumulation time in the CAA.

Many commenters objected to the proposed requirement that the hazardous waste code(s) be placed on the label that is affixed to or physically accompanies the container (as previously discussed, today's final rule changes this requirement so that the label must be "affixed or attached" to the container). They pointed out that the majority of hazardous wastes generated in a laboratory are lab-packed when they are transported off-site and that putting the hazardous waste code(s) on the label that is affixed to the container, then placing the container inside of a lab pack is of no value because the hazardous waste code(s) would not be able to be seen. The commenters suggested allowing the hazardous waste code(s) to be placed on the label that is "associated with the container" rather than the label that is "affixed or physically accompanies the container." We had proposed that, as part of the hazardous waste determination, the hazardous waste code(s) must be placed on the containers within four days of arriving at an on-site CAA or interim status or permitted TSDF. In this instance, the hazardous waste code(s) on the container label would have been visible during accumulation in an on-site CAA or storage in an on-site TSDF. However, since the final regulations have been revised so that the hazardous waste code(s) do not need to be added until just before the hazardous waste is transported off-site and since most containers will be lab-packed, we agree that placing the hazardous waste code(s) on the container label that is affixed or attached to the container provides no value. Therefore, we have revised the regulatory language in §§ 262.210(b)(2), 262.211(e)(2), and 262.212(e)(2) to allow the appropriate hazardous waste code(s) to be placed on the container label that is associated with the container. This will allow the practice of putting hazardous waste code(s) on a packing slip or inventory list for a lab pack to continue.

One commenter expressed concern about the statement in the preamble to the proposed rule (see 71 FR 29735) that, "* * * regardless of whether an employee or non-employee makes the hazardous waste determination, the college or university could (emphasis added) still be responsible if the hazardous waste determination is not made correctly and for any mismanagement of hazardous waste." The commenter was concerned "that such wording could be used to contradict current RCRA requirements that the generator is always responsible for the proper waste determination regardless of who does the actual designation." We did not intend this language to suggest the potential interpretation for which the commenter expressed concern. Indeed, we agree with the commenter that making the proper hazardous waste determination is, and always has been, the responsibility of the generator (as described in 40 CFR 262.11), which in this case, would be the eligible academic entity, and did not intend to suggest otherwise.

Another commenter requested that the Agency clarify that the hazardous waste determination can be made in "any" of the three areas, rather than in "one" of the three areas identified in § 262.209(a). We agree with the commenter and have changed the regulatory language to reflect the comment. For LQGs and SQGs, it is not necessary for the eligible academic entity to limit itself to making the hazardous waste determination in the same place all the time. We realize that this could change depending upon circumstances. For instance, during typical operations, an eligible academic entity may choose to make the hazardous waste determination in its on-site CAA. However, during a laboratory clean-out, the hazardous waste determination might be made in the laboratory. Eligible academic entities that are CESQGs, however, are limited by regulation to making the hazardous waste determination in the laboratory before the unwanted materials are removed from the laboratory and sent off-site.

Several commenters requested that the Agency clarify the status of chemicals or unwanted materials that can be redistributed to other laboratories. It has always been the case under existing RCRA regulations, and continues to be the case under Subpart K, that chemicals that are fit for continued use are not solid or hazardous wastes (see § 261.2(e)(1)) and can be transferred between SAAs, laboratories, and chemical stockrooms. Under Subpart K, we realize that some chemicals that are initially identified as unwanted materials will turn out not to be solid or hazardous wastes. If, for example, an unwanted material is brought to an on-site CAA or TSDF for a hazardous waste determination, and it is determined that such unwanted material can be reused, then it is not a solid or hazardous waste and is not subject to Subpart K or the Subtitle C hazardous waste regulations, once the determination is made. That is, if a chemical is initially labeled as an unwanted material and then it is subsequently discovered that it can continue to be used, the chemical can be returned to a laboratory or chemical stockroom for redistribution. EPA selected the term "unwanted material" over "laboratory waste," in part to indicate that the material may still be useable.

Sometimes laboratories end up discarding chemicals for which little or no identifying information is available. We recognize that, in some cases, chemicals will be managed in the laboratory and that when those chemicals are eventually disposed, it may not be possible to identify the chemicals. This sometimes happens when a researcher retires and leaves unlabeled chemicals behind. In addition, some laboratories synthesize new compounds as part of their research. When these "unknowns" are disposed of, it may not be possible to make a hazardous waste determination without analysis. A few commenters requested that the Agency address more specifically how to handle the hazardous waste determination for such unknown chemicals. As a result, we have added a requirement that an eligible academic entity must develop,

in Part II of its LMP, procedures for the timely and reliable characterization of unknown chemicals. See section III.C.8, of today's preamble for more detail, as well as § 262.214.

7. Laboratory Clean-outs

a. Summary of the Proposed Laboratory Clean-out Provisions

EPA inspections and enforcement cases have revealed that used and unused chemicals that are clearly no longer useable, have in some cases remained in laboratories at academic institutions for years and even decades. Sometimes these chemicals have not been discarded because the eligible academic entity did not want to change its RCRA generator status. In fact, one of EPA's goals in promulgating Subpart K has been to provide incentives for eligible academic entities to remove such "legacy" chemicals from their laboratories. We proposed to provide two incentives for conducting voluntary laboratory clean-outs. First, we proposed that a college or university would have 30 days to conduct a laboratory clean-out. It is during a laboratory clean-out that a laboratory is most likely to accumulate more than 55 gallons of unwanted material (or 1 quart of reactive acutely hazardous unwanted material). If a laboratory accumulates more than 55 gallons, the current SAA regulations require that the excess of 55 gallons of hazardous waste (or 1 quart of acutely hazardous waste) be removed within three days. Under Subpart K, we proposed that if a laboratory accumulates more than 55 gallons of unwanted material, all unwanted material, including reactive acutely hazardous unwanted material, must be removed within ten calendar days, and if a laboratory accumulates more than 1 quart of reactive acutely hazardous unwanted material then all reactive acutely hazardous unwanted material must be removed from the laboratory within ten calendar days. In a laboratory clean-out conducted under Subpart K, however, a laboratory has 30 days from the starting date of the laboratory clean-out to complete the laboratory clean-out without being required to remove the assembled unwanted materials from the laboratory, even if the laboratory exceeds 55 gallons of unwanted material (or 1 quart of reactive acutely hazardous unwanted material). This incentive provides flexibility by giving an extension in the time allowed for removal of the unwanted material over the three days allowed in the satellite accumulation area regulations, as well as the ten days allowed in Subpart K for unwanted materials that are routinely generated.

Second, we proposed that unwanted materials that are generated during the 30 days of a laboratory clean-out and that are hazardous wastes do not need to be counted toward the facility's generator status. However, with this "no counting" incentive, we were and remain concerned about inadvertently encouraging eligible academic entities to retain unwanted materials that are generated in the laboratory on a routine basis and to remove them only during a laboratory clean-out, thereby improperly manipulating their generator status. Two provisions in the proposal were intended to safeguard against this. First was the proposed requirement for the college or university to identify the start date of the laboratory clean-out in its records. This, in combination with the proposed labeling requirement for each container to have an accumulation start date associated with it, provides a method of verification to ensure that any container of unwanted material that has a date that pre-dates the onset of the laboratory clean-out would not be considered to be from the laboratory clean-out and the unwanted material would have to be counted toward calculating the facility's generator status, assuming it is determined to be hazardous waste. The second safeguard that was proposed was that each laboratory at an eligible academic entity could take advantage of the laboratory clean-out incentives only once per 12 month period. Given that each laboratory is required to have a regularly scheduled removal of unwanted material at least every six months, this was intended to ensure that each laboratory would have at least one regularly scheduled removal during a calendar year between laboratory clean-outs.

We received a large number of comments, covering all aspects of the laboratory clean-out provisions. In general, there was overwhelming support for the concept of the laboratory clean-out incentives, although there was opposition expressed by some commenters, as well. Based on these comments, in today's final rule, we have made some revisions to the proposed laboratory clean-out provisions. Below, we discuss the revisions to the proposed laboratory clean-out provisions, as well as the aspects of the laboratory clean-out provisions that are being finalized as proposed, and we provide clarifications regarding the laboratory clean-out provisions.

b. Changes Made to the Laboratory Clean-Out Provisions

Many commenters expressed support for the laboratory clean-out incentive that allowed them not to count their laboratory clean-out hazardous wastes toward their generator status. On the other hand, several commenters expressed concern that the Agency was creating a system that would encourage laboratories to hold onto their routinely generated unwanted materials until a laboratory clean-out, in order to manipulate their generator status. We share the commenters' concerns and have changed the provision of the laboratory clean-out incentive so that only laboratory clean-out hazardous wastes that are unused commercial chemical products are not counted toward the eligible academic entity's generator status. Unused commercial chemical products include chemicals that are discarded P- or U-listed commercial chemical products, and unused discarded chemicals that are hazardous waste because they exhibit one or more characteristics. Any unwanted material that has been used and is a hazardous waste must be counted toward the eligible academic entities generator status, even if it is removed during the 30-day period of a laboratory clean-out. We intend for routinely generated unwanted materials to be removed from the laboratory during regularly scheduled removals, and we expect that the bulk of these routinely generated unwanted materials will be used chemicals. We do not consider these used, routinely generated unwanted materials to be laboratory clean-out wastes and thus, they must be counted toward the eligible academic entity's generator status. Therefore, we have revised the regulatory language to be consistent with our intent and to safeguard against the potential for abuse of the laboratory clean-out incentive. This change will also emphasize that the purpose of the laboratory clean-out is to remove unneeded or unusable chemicals from the laboratory's inventory in order to increase safety within the laboratory.

We will rely on existing regulations and guidance for defining what is considered a used or unused commercial chemical product. For example, the P- or U-listings of § 261.33(e) and (f) apply only to unused commercial chemical products. Therefore, a P- or U-listed hazardous waste generated during a laboratory clean-out would not have to be counted toward the eligible academic entity's generator status, because, by definition, it would be unused. An unused

chemical that is a hazardous waste because it exhibits one or more characteristics also would not have to be counted toward the eligible academic entity's generator status if it were generated during a laboratory clean-out. In a memo dated June 14, 1990, (Bussard to Wilson, RCRA Online #11523), the Agency answered a series of specific questions relating to the definition of "used." In summary, the memo states that dissolving or diluting P- or U-listed chemicals in water, acids, bases, preservatives, or solvents to make laboratory standards (in lieu of buying such solutions) does not constitute use of these chemicals. In addition, any unused, leftover chemical (either P- or U-listed, or characteristic) in an original container, either unopened or opened, or that has been transferred to another container, such as a squirt bottle, for use would also be considered unused.

Some commenters were concerned about the possibility that as a result of the laboratory clean-out provision that allows some hazardous waste not to count toward the eligible academic entity's generator status, some eligible academic entities that are typically CESQGs but would become either SQGs or LQGs as a result of a laboratory clean-out (absent Subpart K), would be able to maintain their CESQG status. If this were the case, the commenter was concerned that hazardous wastes that should normally be managed as hazardous waste would be eligible to be disposed of in a municipal solid waste landfill, which is allowed under the CESQG regulations of § 261.5. The Agency shares the commenter's concern. In fact, in the preamble to the proposed rule we stated, "any hazardous waste that is not counted toward generator status during a laboratory clean-out is still a hazardous waste and is subject to all applicable regulations, including the land disposal regulations, and the regulations for on-site and off-site management, transportation, and treatment and disposal of hazardous waste. The incentive that the Agency is proposing to provide for hazardous wastes generated during a laboratory clean-out affects only the length of time that hazardous wastes are stored on-site and other associated regulations of 40 CFR 262.34 pertaining to generator status, such as biennial reporting and contingency plans" (see 71 FR 29739).

Nevertheless, we believe that for clarity it is appropriate to revise the regulatory language of § 262.213 to reflect the intent of the rule as stated in the preamble to the proposed rule. This is made all the more necessary by the expansion of the final rule to include eligible academic entities that are CESQGs. If an SQG avoided LQG status as the result of a laboratory clean-out incentive, the hazardous waste would still be regulated as hazardous waste once it is taken off-site, since both SQGs and LQGs must comply with the same transportation and disposal regulations. With the inclusion of CESQGs into the final rule, however, if a CESQG avoided becoming an SQG or LQG as the result of a laboratory clean-out incentive, then potentially regulated hazardous waste would be allowed to be disposed of at a municipal solid waste landfill. Therefore, we are modifying the language of § 262.213(a)(2) to indicate that the effect of not counting hazardous wastes that are unused commercial chemical products toward the eligible academic entity's generator status is limited to the *on-site accumulation* of the hazardous waste. In tandem, we also are including a new paragraph, § 262.213(a)(3), to indicate that for the purposes of *off-site management,* if an eligible academic entity generates more than the monthly CESQG limits (i.e., >1 kg of acutely hazardous waste, or >100 kg of hazardous waste), then the eligible academic entity must manage its hazardous waste according to all applicable hazardous waste regulations for SQGs and LQGs. When determining whether these monthly limits have been exceeded, the eligible academic entity must count all of its hazardous wastes, including those generated during laboratory clean-outs. In other words, even when hazardous wastes are not counted toward the site's generator status, if they are generated in excess of the CESQG monthly limits, they are regulated as hazardous waste when they are transported, treated, stored or disposed of off-site. EPA intended to create an incentive to conduct laboratory clean-outs by relieving the generator of some of the additional burden that would be incurred by changing generator status. However, we did not intend to allow regulated hazardous waste in excess of the CESQG monthly limits to be disposed of in municipal solid waste landfills.

We illustrate how this would work by providing an example of a likely scenario. An eligible academic entity that is normally a CESQG conducts a laboratory clean-out. As a result of the laboratory clean-out, the eligible academic entity generates 5 kg of P-listed hazardous waste. Because P-listed hazardous wastes are all acute hazardous wastes, the eligible academic entity generates more than 1 kg of acute hazardous waste that month. Normally, this would mean that the eligible academic entity would become subject to the LQG regulations for that month. However, because the laboratory clean-out provisions allow the eligible academic entity not to count the 5-kg of P-listed hazardous waste from the laboratory clean-out toward its generator status, the eligible academic entity will remain a CESQG under § 261.5 for the purposes of on-site accumulation of its hazardous waste, including the acute hazardous waste. However, once the hazardous waste is sent off-site, the eligible academic entity would not be allowed to send its hazardous waste to a non-hazardous waste facility, such as a municipal solid waste landfill, as allowed by the CESQG regulations of § 261.5. Instead, because the eligible academic entity generated acute hazardous waste in excess of the CESQG monthly limits (i.e., >1 kg acute hazardous waste), the hazardous waste would have to be managed as hazardous wastes when sent off-site. This means, for example, that the hazardous waste would have to be manifested, comply with the LDRs, and be either recyled or treated and disposed of at a hazardous waste TSDF.

A number of commenters expressed support for extending the laboratory clean-out incentives to ancillary spaces, such as stockrooms and laboratory preparatory rooms. As discussed in the preceding section on the definition of laboratory (see Section III.B.2 and § 262.200), these ancillary spaces would be considered laboratories, whether they support individual laboratories or the laboratories of a department, and thus would be eligible to take advantage of the laboratory clean-out provisions. In fact, since these ancillary areas typically store chemicals for use by nearby or surrounding laboratories, we believe the clean-out provisions are especially important for these ancillary areas.

Two commenters pointed out an inconsistency between the preamble and the regulatory text with respect to how long records of laboratory clean-outs must be kept. The preamble to the proposed rule stated that records must be kept "for as long as the college or university operates under this new subpart" (see 71 FR 29739), while the proposed regulatory text stated that records pertaining to laboratory clean-outs must be kept "for a period of three years from the date the clean-out ends." The proposed regulatory text reflects what we intended for record retention pertaining to laboratory clean-outs. Thus, the final rule makes clear that records for laboratory clean-outs must be kept for three years from the date the clean-out ends.

c. Changes Not Made to the Laboratory Clean-Out Provisions

Many commenters expressed support for the 30-day timeframe for conducting laboratory clean-outs, believing that 30 days is sufficient time to conduct a laboratory clean-out. About the same number of commenters, however, requested a longer timeframe for conducting laboratory clean-outs. Suggestions ranged from 60 days to 180 days. One commenter indicated that "60 days is a more reasonable length of time to arrange for and mobilize a hazardous waste contractor for on-site lab-packing services, especially if the clean-out was unexpected or the institution is in a remote location." We anticipate that in most instances, laboratory clean-outs will be planned events. Therefore, we continue to believe that 30 days is sufficient time to conduct a thorough laboratory clean-out and we are finalizing the time limit for laboratory clean-outs, as proposed.

Commenters asked the Agency when the 30 days of a laboratory clean-out would begin—while the inventory of laboratory chemicals is being sorted or when they are discarded? The definition of "laboratory clean-out" in today's final rule is:

> an evaluation of the inventory of chemicals and other materials in a laboratory that are no longer needed or that have expired and the subsequent removal of those chemicals or other unwanted materials from the laboratory. A clean-out may occur for several reasons. It may be on a routine basis (e.g., at the end of a semester or academic year) or as a result of a renovation, relocation, or change in laboratory supervisor/occupant. A regularly scheduled removal of unwanted material as required by § 262.208 does not qualify as a laboratory clean-out.

Therefore, the 30 days of a laboratory clean-out starts when a trained professional or laboratory personnel begins sorting through and evaluating the inventory of laboratory chemicals, making decisions about whether they are unwanted materials or not. Once it has been determined that a chemical is, indeed, an unwanted material, as opposed to a chemical or other material that can be kept in the laboratory for further use, then the unwanted material becomes subject to the requirements of Subpart K. We realize that a laboratory clean-out can involve considerable planning before the laboratory clean-out begins. Advanced planning for a laboratory clean-out prior to sorting and evaluating a laboratory's chemical inventory is not considered the start of the 30 days allowed for a laboratory clean-out.

At the conclusion of the laboratory clean-out, all unwanted materials (or hazardous waste, if the hazardous waste determination is made in the laboratory) must be removed from the laboratory. Note that, as with routinely generated unwanted materials, unwanted materials from a laboratory clean-out can be taken to an on-site CAA or TSDF to make the hazardous waste determination. Eligible academic entities without an on-site CAA, or on-site interim status or permitted TSDF will have to make the hazardous waste determination for unwanted materials generated during a laboratory clean-out in the laboratory before they are removed from the laboratory and will have to be prepared to send the hazardous wastes off-site at the conclusion of the 30-day clean-out.

Finally, although a few commenters suggested that the Agency require that eligible academic entities conduct laboratory clean-outs, the Agency has decided not to do so. Rather, we believe that the laboratory clean-out provisions are attractive enough to eligible academic entities such that they will avail themselves of the clean-out provisions without EPA forcing them to do so through a mandate.

d. Clarifications About the Laboratory Clean-Out Provisions

The Agency wants to reiterate the point that we view laboratory clean-outs to be distinct from routine, regularly scheduled removals of unwanted materials. In the course of normal laboratory operations, many chemicals are used and will become unwanted materials and ultimately may be determined to be hazardous wastes. This can occur as a result of teaching or research activities or, in the case of teaching hospitals, as a result of clinical or diagnostic activities. We expect that these routinely generated wastestreams will comprise the bulk of the unwanted materials that are removed from the laboratory during regularly scheduled removals. On the other hand, a laboratory often can accrue a large number of unused chemicals in its inventory, some of which can become dangerous over time, developing the potential to cause significant harm. It has been our observation that it is unusual for laboratories to remove unused chemicals from their inventories on any regular basis. We have developed the laboratory clean-out provisions to provide incentives for laboratories to assess their inventory and remove chemicals from the laboratory that are either dangerous or have the potential to become dangerous, or are unlikely to be used in the future, regardless of the reason. We anticipate that many eligible academic entities will take advantage of the laboratory clean-out provisions when a researcher or faculty member retires or moves, or when a building is renovated. However, we are not limiting the use of the laboratory clean-out provisions to these events because we would like to encourage laboratories to develop the practice of more frequent reviews and removals of their unneeded or unusable chemicals. However, the laboratory clean-out incentives (i.e., having 30 days to conduct a laboratory clean-out and not counting toward the eligible academic entity's generator status the hazardous waste that consists of unused commercial chemical products) is still limited to once per laboratory per 12 month period.

Two commenters asked for clarification about the labeling and container management standards that apply to laboratory clean-out wastes. During the course of a laboratory clean-out, some chemicals will be considered unwanted materials and ultimately hazardous wastes, while others will not. Those laboratory clean-out chemicals that become unwanted materials are subject to all the same labeling and container management standards—as well as all other applicable requirements of Subpart K—as any other unwanted material in the laboratory, with the exceptions noted in § 262.213(a)(1)–(4). On the other hand, those chemicals that can continue to be used in the same laboratory would be considered products, not unwanted materials, and would not be subject to the labeling and container management standards of Subpart K. If a clean-out chemical from one laboratory can be used in a different laboratory, we can envision two probable scenarios. If the determination is made in the laboratory that a chemical can be used in another laboratory, it would not be considered an unwanted material; rather, it would be considered a product and thus not regulated under RCRA. If, on the other hand, the determination that the chemical can be used in another laboratory is made after it is removed from the laboratory, in an on-site CAA or TSDF, the clean-out chemical would be regulated as an unwanted material until it is redistributed from the CAA to another laboratory for further use.

Several commenters were concerned that if hazardous wastes generated as a result of a laboratory clean-out do not have to be counted toward the eligible academic entity's generator status, fewer generators will have to submit a BR and the result would be under-reporting of hazardous wastes from those eligible academic entities that choose to be subject to the Subpart K requirements.

We acknowledge that there may be fewer generators reporting hazardous waste generation as a result of the laboratory clean-out provisions not to count hazardous waste that consists of unused commercial chemical products toward the eligible academic entity's generator status because under the Federal regulations, only LQGs have to submit the BR. Nevertheless, we anticipate that even after subtracting laboratory clean-out wastes when calculating their generator status, many eligible academic entities will still generate enough hazardous waste to be LQGs, based on their routinely generated laboratory waste, as well as their non-laboratory hazardous wastes, in which case they will still be required to submit the BR. Moreover, some States require SQGs to submit a BR. For information on how to submit the BR with respect to hazardous wastes generated during laboratory clean-outs, see Section III.D.1.

8. Laboratory Management Plan

Today's final rule requires that eligible academic entities choosing to be subject to the Subpart K requirements must develop an LMP. As EPA explained in the preamble to the proposed rule, the goal of the LMP is for a college or university to plan carefully how it is going to implement Subpart K's performance-based requirements for safely managing the unwanted materials generated in laboratories. We believe that the LMP provides a necessary supplement to the flexibility provided in this rule and will ultimately work to increase environmental performance and protection. EPA received positive feedback from commenters about requiring the LMP. Many commenters explained that requiring an LMP along with a performance-based approach will help make it possible for eligible academic entities to achieve their environmental goals, such as regulatory compliance, pollution prevention and laboratory safety.

Some commenters misinterpreted EPA's intent for the LMP. One commenter believed that each laboratory within a college or university had to develop an LMP. That is not the case at all. Rather, EPA intended that the eligible academic entity—a college or university, or non-profit research institute or teaching hospital that is owned by or has a formal written affiliation agreement with a college or university—would create one LMP for all its laboratories that are operating under Subpart K. In addition, if an eligible academic entity has multiple EPA Identification Numbers or sites, then it can develop one LMP to cover operations for all laboratories at all sites operating under the Subpart K requirements. Also, a number of commenters suggested that an eligible academic entity should list in its LMP which laboratories would be covered under Subpart K and its LMP. The commenters go on to state that each eligible academic entity should be allowed to determine which of its laboratories will operate under Subpart K and document this in its LMP. In response, and as described earlier in the preamble, if multiple sites with separate EPA Identification Numbers operate under one LMP, the LMP must identify which sites are covered by the LMP. However, there is no requirement to identify each laboratory within each site, as all laboratories at a participating eligible academic entity within that site or covered by an EPA Identification Number must operate under Subpart K (see section III.C.1, Notification and § 262.203). Nevertheless, should an eligible academic entity choose to list all its laboratories that are participating in Subpart K, it could be a valuable tool to manage removals of unwanted material, as well as assist EPA and State inspectors in determining compliance with the Subpart K requirements.

Another commenter argued that requiring an LMP would be redundant documentation since laboratories are required to have a Chemical Hygiene Plan under OSHA's Laboratory Standard. We disagree. As the proposal clearly explained, a college or university (and now eligible academic entities) can take an existing plan, such as the Chemical Hygiene Plan and revise it to include the additional necessary information or procedures required by today's rule.

Two requirements for the LMP are remaining the same in today's final rule. First, an eligible academic entity must make its LMP "available" to laboratory workers, students, and anyone requesting the LMP at the eligible academic entity. Examples may include, but are not limited to, posting the LMP on the Web site of the participating eligible academic entity or keeping a copy of the LMP at each individual site of the eligible academic entity that is participating in Subpart K. Second, since the LMP is a document to plan how an eligible academic entity will meet the performance-based standards of Subpart K, EPA requires the LMP to be reviewed and updated, as needed, so that it is current with the waste management practices at the eligible academic entity's laboratories.

Most of the comments received about the LMP centered on the two options EPA co-proposed regarding the enforceability of the contents of the LMP. Both proposed options required development of an LMP that addressed how the college or university would achieve the performance-based standards of the rule. The difference between the two options was in the enforceability of the contents of the LMP. Under one proposed option, compliance with the performance-based regulations was enforceable, but the contents of the LMP were not enforceable. In the other proposed option, the contents of the LMP were enforceable, as well as compliance with the performance-based regulations.

EPA received comments supporting both options. There was a strong belief from some commenters that if the EPA did not make the LMP's contents enforceable, then the LMP would not be a meaningful document and would not be followed. On the other side, commenters argued that the LMP should not be enforceable; these commenters believed that an enforceable LMP would compel colleges or universities to develop vague, minimum procedures and that an enforceable LMP would be contrary to the goals of a performance-based regulation.

Reviewing the Agency's reasons for proposing the requirement for an LMP, EPA wanted colleges and universities to give careful thought regarding the management of unwanted materials and hazardous waste generated in their laboratories. Moreover, we wanted to encourage colleges or universities to go above and beyond the regulations and to think holistically about waste management on campus by planning and developing best management practices (BMPs) in the LMP. We continue to believe strongly that the LMP is necessary in order to provide the planning component for implementing the provisions of this rule. Based on our views regarding the purpose of the LMP and the comments we received, we have decided to split the LMP into two parts—with the contents of one part enforceable and the contents of the other part not enforceable, although in order to be in compliance with Subpart K, an eligible academic entity must address all nine elements in its LMP.

Thus, under the final rule, the LMP must be comprised of two parts with a total of nine elements as specified in 40 CFR 262.214. The specific contents in Part I of the LMP are enforceable, while the specific contents in Part II of the LMP are not enforceable. Below is a discussion of the required elements in the two Parts of the LMP. If an element has remained the same as proposed, it is simply enumerated without discussion.

a. Part I of the LMP

As a way to incorporate more flexibility into the regulations, while maintaining the accountability in this Subpart, the contents of Part I of the LMP are enforceable. This part of the LMP contains necessary information for inspectors and other officials about what options within Subpart K the eligible academic entity is exercising. The two elements of Part I of the LMP are explained here:

1. Describe procedures for container labeling in accordance with § 262.206(a), including

i. Identifying whether the eligible academic entity will use the term "unwanted material" on the containers in the laboratory. If not, identify the equally effective term that will be used in lieu of "unwanted material" and consistently by the eligible academic entity. The equally effective term, if used, has the same meaning and is subject to the same requirements as "unwanted material."

ii. Identifying the manner in which information that is "associated with the container" will be imparted.

The first sub-element allows flexibility in using different terminology other than "unwanted materials." Many commenters wrote that they disliked the term "unwanted materials" because it was overbroad and would cause confusion. While we do not necessarily agree with these commenters, EPA does not object to including additional flexibility concerning the terminology that can be used in the laboratory instead of "unwanted materials." [8] However, in order for an eligible academic entity to take advantage of this option, it must identify another equally effective term (e.g., laboratory waste) in the first element of Part I of its LMP. This equally effective term must be used consistently in all of its laboratories operating under Subpart K (see Section III.C.2 and § 262.206(a)(1)(i)).

The second sub-element of the first element of Part I of the LMP in today's final rule requires eligible academic entities to describe the manner in which information associated with the container will be provided. For example, if an eligible academic entity chooses to use barcodes and a computer tracking system to meet the requirement to have information associated with a container, it must describe this in the enforceable Part I of the LMP, so that inspectors know where the associated container information resides.

[8] If an eligible academic entity elects to use another equally effective term in lieu of "unwanted material," in compliance with § 262.206(a)(1)(i), the equally effective term will have the same meaning as "unwanted material." In addition, the equally effective term shall be subject to all of the same requirements in this rule that apply to unwanted materials.

2. Identify whether the eligible academic entity will comply with § 262.208(a)(1) or § 262.208(a)(2) for regularly scheduled removals of unwanted material from the laboratory.

In the second element of Part I of the LMP, an eligible academic entity must describe which method it will exercise for the removal of unwanted materials. Today's final rule adds another option for the removal of unwanted materials, as described in Section III.C.5 of today's preamble, in order to increase the flexibility for eligible academic entities. However, with the added flexibility, we require that the eligible academic entity documents which removal method it chooses to use. For example, if an eligible academic entity elects to comply with 40 CFR 262.208(a)(2), where it must remove containers of unwanted material from each laboratory within six months of each container's accumulation start date, then the eligible academic entity must record this choice in Part I of the LMP. If the eligible academic entity elects to comply with the other approach, that must be documented in Part I of the LMP.

b. Part II of the LMP

As with Part I of the LMP, Part II of the LMP is required and must reasonably address the seven required elements. EPA envisions that eligible academic entities will use this section to capture BMPs for holistic waste management within laboratories. In order to encourage the development of BMPs, the specific contents of Part II of the LMP are not enforceable. For example, should an eligible academic entity explain that it will train students commensurate with their duties by showing a video, but instead provides classroom instruction because the video is broken, then the eligible academic entity is not in violation of its LMP. The following are the seven elements that an eligible academic entity must address in Part II of its LMP; discussed in the order in which they appear in the regulations.

- The first three elements of Part II of the LMP are essentially the same as proposed.

The second element includes a minor change that was necessary because of the change in the training and instruction requirements for laboratory workers and students. Under the proposed rule, training was required for laboratory workers, while instruction was required for students. Today's final rule requires that for both laboratory workers and students, training be commensurate with their duties. Elements one, two, and three of Part II of the LMP are below:

1. Describe its intended best practices for container labeling and management standards, including how the eligible academic entity will manage containers used for in-line collection of unwanted materials, such as with high performance liquid chromatographs and other laboratory equipment (see the required standards at § 262.206).

2. Describe its intended best practices for providing training for laboratory workers and students commensurate with their duties (see the required standard at § 262.207(a)).

3. Describe its intended best practices for providing training to ensure safe on-site transfers of unwanted material by trained professionals (see the required standard at § 262.207(d)(1)).

- The fourth element of Part II of the LMP has changed since proposal.

The fourth element of Part II of the LMP concerns the procedures of regularly removing unwanted materials from the laboratory. While EPA is not adding anything to this element, the regulatory language has been modified to clarify what the Agency intends as part of this element. That is, we have included two different types of removals of unwanted materials from laboratories—regularly scheduled removals, and removals when maximum volumes are exceeded—because they require different procedures. This clarification will ensure that an eligible academic entity develops a method to communicate with EH&S personnel or vendors when laboratories exceed the maximum volume and a pickup of the unwanted materials is needed. See the fourth element below:

4. Describe its intended best practices for removing unwanted material from the laboratory, including:

a. For regularly scheduled removals—Develop a regular schedule for identifying and removing unwanted materials from its laboratories (see the required standards at § 262.208(a)(1) and § 262.208(a)(2)).

b. For removals when maximum volumes are exceeded

A. Describe its intended best practices for removing unwanted materials from the laboratory within 10 calendar days when unwanted materials have exceeded their maximum volumes (see the required standards at § 262.208(d)).

B. Describe its intended best practices for communicating that unwanted materials have exceeded their maximum volumes.

- The fifth and sixth elements of Part II of the LMP have remained essentially the same as proposed. The second part of element six reflects one minor change. In the preamble to the proposed rule and as finalized today, one of the requirements for a laboratory clean-out is that an eligible academic entity must document its clean-out activities (see section III.D.2 or § 261.213(a)(4)). Because we are not mandating that an

eligible academic entity document its laboratory clean-out in a particular format or media, we are requiring that an eligible academic entity develop procedures for documenting it as part of element six of Part II of the LMP. See elements five and six below:

5. Describe its intended best practices for making hazardous waste determinations, including specifying the duties of the individuals involved in the process (see the required standards at § 262.11 and §§ 262.209–262.212).

6. Describe its intended best practices for laboratory clean-outs if the eligible academic entity plans to use the incentives for laboratory clean-outs provided in § 262.213, including:

a. Procedures for conducting laboratory clean-outs (see the required standards at § 262.213(a)(1)–(3)) and

b. Procedures for documenting laboratory clean-outs (see the required standards at § 262.213(a)(4)).

• The seventh element of Part II of the LMP has changed since proposal.

The seventh element has been expanded in the final rule based on several comments about the characterization of unknown chemicals and chemicals that degrade over time. The proposed rule required colleges and universities to develop emergency prevention, notification, and response procedures appropriate to the hazards in the laboratory, and the final rule keeps this requirement as the first sub-element of element seven. In comments, however, we were informed that laboratories face issues with chemicals that expire and/or become dangerous as they degrade. A good example of this is picric acid, which becomes explosive if it becomes dehydrated/crystallized. Because of the threat some chemicals may pose, the final rule requires that the seventh element of Part II of the LMP includes a list of chemicals that the eligible academic entity has or is likely to have that can degrade over time and become more dangerous with age; the list of chemicals is intended to facilitate the removal of these chemicals before a problem develops. The third sub-element requires eligible academic entities to develop procedures to dispose of these chemicals safely.

Finally, a number of commenters suggested that eligible academic entities should develop procedures in their LMPs for identifying and characterizing unknown chemicals in a timely manner. Since transporters and TSDFs often will not accept unknown chemicals, the unknown chemicals tend to remain on-site for extended periods. We agree with the commenters and believe this requirement will assist in the timely removal of these unknown chemicals and in emergency prevention for laboratories. Thus, we have added it as the fourth sub-element of the seventh element of Part II of the LMP. See the seventh element below:

7. Describe its intended best practices for emergency prevention, including:

a. Procedures for emergency prevention, notification, and response, appropriate to the hazards in the laboratory, and

b. A list of chemicals that the eligible academic entity has, or is likely to have, that become more dangerous when they exceed their expiration date and/or as they degrade, and

c. Procedures to safely dispose of chemicals that become more dangerous when they exceed their expiration date and/or as they degrade, and

d. Procedures for the timely characterization of unknown chemicals.

In summary, an eligible academic entity must develop an LMP with two parts covering a total of nine elements. The contents of the two elements in Part I of the LMP are enforceable. Part II of the LMP is intended to encourage eligible academic entities to develop BMPs for their laboratories. While the contents of Part II of the LMP are not enforceable, eligible academic entities must reasonably address the seven required elements.

9. How CESQGs Comply With Subpart K and How They Differ From LQGs and SQGs

In most respects, an eligible academic entity that opts into Subpart K is regulated the same, regardless of whether the eligible academic entity is a CESQG, SQG, or LQG. However, because CESQGs are regulated differently than SQGs and LQGs under the existing generator regulations, we have had to tailor some sections of the Subpart K requirements to reflect their inclusion. This section discusses how the Subpart K requirements will be implemented for CESQGs.

Specifically, Subpart K provides an alternative set of requirements for generators of laboratory hazardous waste. For SQGs and LQGs, Subpart K provides an alternative to §§ 262.11 and 262.34(c) (the SAA regulations). For CESQGs, however, the Subpart K requirements provide an alternative to the conditional exemption in § 261.5(b), which exempts hazardous waste from regulation under 40 CFR Parts 124, 262–266, 268, 270, and the notification requirements of RCRA section 3010, provided the CESQG complies with the conditions of the exemption. Thus, by choosing to become subject to Subpart K, an eligible academic entity relinquishes its conditionally exempt status and becomes subject to the requirements of 40 CFR part 262, Subpart K, while managing its unwanted materials and hazardous wastes in its laboratories. However, a CESQG also will be able to take advantage of the two main benefits of the alternative standards: Making the hazardous waste determination before the unwanted materials are removed from the laboratory (but at a time after the initial generation) and the laboratory clean-out provisions.

As with other eligible academic entities, an eligible academic entity that is a CESQG and that opts into Subpart K must notify EPA of its intended participation using the Site Identification Form (EPA Form 8700–12). One of the fields on the Site Identification Form asks for the site's EPA Identification Number. We realize that most CESQGs will not have EPA Identification Numbers when they submit their notifications for Subpart K and they are not required to apply for one, although some States may choose to assign an Identification Number once a Site Identification Form is submitted. If an eligible academic entity that opts into Subpart K is a CESQG and does not have an EPA Identification Number, all of the laboratories owned by the eligible academic entity and that are on-site (as opposed to under the same EPA Identification Number) will be subject to Subpart K.

Many college and university commenters informed the Agency that they have multiple EPA Identification Numbers (or sites) within a single campus. When a campus is divided into numerous sites, each site has its own generator status, based on its monthly generation of hazardous waste. Therefore, a single campus may be comprised of sites that are CESQGs, SQGs, and LQGs. Some other commenters also indicated that they have field laboratories, which may not be on campus, that are typically CESQGs, and which may not be on campus, but that laboratory personnel often work in both the campus laboratories and the field laboratories. Commenters requesting that CESQGs be allowed to be subject to Subpart K argued that it would be to their benefit to have the same management standards for the hazardous wastes generated in all of their laboratories. The Agency agrees and is clarifying that when eligible academic entities that are CESQGs choose to be subject to the Subpart K requirements, their laboratories must follow the same container labeling, container management, training requirements and all other management standards for the management of their unwanted materials in the laboratory as other generators operating under Subpart K.

Since CESQGs will not have an on-site CAA or TSDF, CESQGs must make the hazardous waste determination in the laboratory before the unwanted materials may be removed from the laboratory (but at a time after the initial generation of the unwanted materials). We realize that a CESQG may be part of a larger "main" campus that has a CAA and that the eligible academic entity may want to bring the unwanted materials from the CESQG site to the main campus's CAA to make the hazardous waste determination. However, today's rule does not allow for this and all hazardous waste determinations must be made on-site before the unwanted material may be treated or disposed of on-site or transported off-site. Today's rule does not allow for off-site consolidation of unwanted materials or hazardous wastes, with two exceptions that are discussed in section III.C.10 of today's preamble. As discussed previously, eligible academic entities, including CESQGs, may consolidate unwanted materials on-site in another laboratory (see section III.C.5.c of today's preamble for more detail).

Once the hazardous waste determination is made in accordance with § 262.11, the eligible academic entity must count the unwanted materials that are hazardous wastes toward calculating its monthly generator status and it must remove the hazardous waste from the laboratory directly. If the total quantity of hazardous waste for the month for the site is below the CESQG limits (i.e., <1 kg of acutely hazardous waste and <100 kg of hazardous waste), the hazardous waste may be managed as CESQG hazardous waste when removed from the laboratory. That is, the hazardous waste may be managed at any of the types of facilities listed in § 261.5(f)(3) for acute hazardous waste, or § 261.5(g)(3) for hazardous waste:

(i) Permitted under 40 CFR part 270.

(ii) In interim status under 40 CFR parts 265 and 270.

(iii) Authorized to manage hazardous waste by a State with a hazardous waste management program approved under 40 CFR part 271.

(iv) Licensed, registered or permitted by the State to manage municipal solid waste, and if managed in a solid waste landfill is subject to 40 CFR part 258.

(v) Licensed, registered or permitted by the State to manage non-municipal non-hazardous waste, and if managed in a non-municipal non-hazardous waste disposal unit is subject to 40 CFR 257.5–257.30.

(vi) Beneficially uses, reuses, legitimately recycles or reclaims its waste; or treats its waste prior to beneficial use, reuse, legitimate recycling or reclamation, or

(vii) For universal waste, a universal waste handler or destination facility subject to the requirements of 40 CFR part 273.

Eligible academic entities that are CESQGs or have CESQG sites also will be able to take advantage of the laboratory clean-out provisions in the final rule. That is, CESQGs can have up to 30 days to conduct a laboratory clean-out and not be required to count hazardous wastes that are unused commercial chemical products and that are generated during a laboratory clean-out toward calculating their generator status. Thus, we believe that the laboratory clean-out incentives will now provide a considerable benefit to generators that are typically CESQGs, but become LQGs on an episodic or periodic basis when they discard unused commercial chemical products (either listed or characteristic) from their laboratories. As discussed in section III.B.7 of today's preamble, even if the laboratory clean-out incentives allow an eligible academic entity to maintain its conditionally exempt status, if the eligible academic entity generates hazardous waste in quantities in excess of the CESQG monthly limits, the hazardous waste is fully regulated as hazardous waste when it is transported, treated, stored or disposed of off-site (also see § 262.213).

10. Off-site Consolidation

a. Off-site Consolidation by CESQGs

Several commenters suggested that the Agency allow the off-site consolidation of unwanted materials at a centralized, off-site location. These commenters generally suggested this as part of their request to expand the applicability of the final rule to include CESQGs. The current generator regulations, for any generator status, provide limited opportunities for a generator to accept off-site shipments of another generator's hazardous waste. Under both the existing generator regulations, as well as under today's final rule, there are two situations that allow for a generator to receive hazardous waste from another, off-site generator.

The first situation applies to the off-site consolidation of hazardous waste generated only by CESQGs. Under § 261.5, in order to qualify as a CESQG, a CESQG must ensure delivery of its acute hazardous waste and hazardous waste to one of the seven types of facilities listed in § 261.5(f)(3) and 261.5(g)(3):

(i) Permitted under 40 CFR part 270.

(ii) In interim status under 40 CFR Parts 265 and 270.

(iii) Authorized to manage hazardous waste by a State with a hazardous waste management program approved under 40 CFR part 271.

(iv) Licensed, registered or permitted by the State to manage municipal solid waste, and if managed in a solid waste landfill is subject to 40 CFR part 258.

(v) Licensed, registered or permitted by the State to manage non-municipal non-hazardous waste, and if managed in a non-municipal non-hazardous waste disposal unit is subject to 40 CFR 257.5 through 257.30.

(vi) Beneficially uses, reuses, legitimately recycles or reclaims its waste; or treats its waste prior to beneficial use, reuse, legitimate recycling or reclamation, or

(vii) For universal waste, a universal waste handler or destination facility subject to the requirements of 40 CFR part 273.

If a CESQG that generates hazardous waste wants to send its hazardous waste to an off-site consolidation area for centralized collection, it must send its hazardous waste to a collection site that would qualify as one of the above mentioned facilities in order to still qualify as a CESQG. Thus, a receiving generator could be an acceptable collection site if it qualified as one of the seven categories of facilities above. For example, a CESQG could send its hazardous waste to an eligible academic entity if such receiving entity was an interim status or permitted TSDF or was authorized by the State to manage hazardous waste under the State approved program. If the CESQG that generates hazardous waste sends it to another generator that does not qualify as one of the facilities specified above, the generating CESQG would not meet the conditions of the CESQG exemption and would be subject to the applicable generator regulations of 40 CFR part 262 (see Q&A dated April 4, 1987; RCRA Online #12894).

b. Off-site Consolidation by CESQGs, SQGs, and LQGs

The second situation applies to all generator categories. A generator can send its hazardous waste to another generator's site if the receiving site qualifies as a transfer facility (see Q&A dated April 4, 1987; RCRA Online #12894). Under § 263.12, hazardous waste may be stored in containers at a transfer facility for ten days or less without requiring interim status or a permit. A transfer facility is defined in 40 CFR 260.10 as " * * * any transportation related facility including loading docks, parking areas, storage

areas, and other similar areas where shipments of hazardous waste are held during the normal course of transportation." It is possible that a generator may qualify as a transfer facility, as long as the hazardous waste it receives is not stored on-site for more than ten days. As stated previously, the hazardous waste determination must be made for all unwanted materials prior to transporting them off-site, regardless of whether the off-site transportation includes a stop at a transfer facility.

11. Topics That Are Outside the Purview of This Rulemaking

EPA has consistently interpreted our existing hazardous waste regulations to allow generators to non-thermally treat the hazardous waste they generate on-site in their accumulation tanks and containers, without needing to obtain a RCRA permit or having interim status (51 FR 10168, March 24, 1986). Examples of treatment that may be conducted in accumulation tanks and containers without a permit or interim status include precipitating heavy metals from solutions and oxidation/reduction reactions. A permit or interim status would be required to store and/or treat hazardous waste that is consolidated from off-site locations or if the treatment was thermal treatment.

Many commenters suggested that the Subpart K requirements should specifically address treatment of hazardous waste by generators in laboratories. In the proposal to Subpart K, the Agency did not specifically identify a regulatory approach for the treatment of hazardous waste by generators in laboratories. Therefore, because the Agency did not provide notice and an opportunity for public comment on this subject, it is outside the scope of this rulemaking and EPA does not intend to add any such provisions to the final rule. While today's final rule does not specifically address the treatment of hazardous waste in laboratories, it also does not change EPA's interpretation of its existing regulations.

We have also often been informed, and commenters confirmed, that it is not uncommon for an eligible academic entity to have numerous EPA Identification Numbers per "campus." Typically, this is because the campus is intersected by public roads so that not all areas of the campus are considered "on-site," as defined by RCRA. We received several comments encouraging EPA to allow a single EPA Identification Number per campus. We did not specifically identify in the proposal to Subpart K a regulatory approach for allowing one EPA Identification Number per campus. Therefore, because the Agency did not provide notice and an opportunity for public comment on this subject, it is outside the scope of this rulemaking and EPA does not intend to add any such provisions to the final rule.

D. Reporting and Recordkeeping

1. Reporting to the Biennial Report for Eligible Academic Entities That Are LQGs

Under the existing generator regulations, LQGs are required to submit information about their hazardous waste generation and management activities in the BR. The data are prepared and submitted to the EPA Regions (or authorized States) in even-numbered years (e.g., 2006) and must include waste information from the previous, odd-numbered year (e.g., 2005). The data submitted for the BR is retained in the RCRAInfo System. When developing rulemakings, the Agency often relies on data submitted for the BR to inform us about various aspects of the hazardous waste activities, such as identifying generators of hazardous wastes and waste generation and management activities (i.e., number of hazardous waste generators and volume of hazardous waste being generated and managed). When analyzing data in the RCRAInfo System to support the development of this rulemaking, it became clear to the Agency that there are a variety of ways in which similar entities with similar hazardous waste generation patterns report data for the BR. The Agency recognizes the differences in reporting may be situational; however, we offer suggestions here for reporting future laboratory hazardous waste activities to the BR that will assist the Agency in analyzing data in a more consistent and accurate manner.

On the Generation and Management (GM) form of the BR, we suggest the use of the Source Code G22 (Laboratory analytical wastes (used chemicals from laboratory operations)) would be appropriate in most cases for hazardous wastes that are generated in the laboratory and that are not from a laboratory clean-out. When G22 is not applicable, but the hazardous wastes are generated in a laboratory, the generator should indicate in the comment field (when provided by the State) that the hazardous waste originated in a laboratory. In addition, the Form Codes W001 (Lab packs from any source not containing acute hazardous waste) and W004 (Lab packs from any source containing acute hazardous waste) should be used when applicable.

If an eligible academic entity submits a BR that includes hazardous waste from laboratory clean-outs, the Agency's guidance on preparing the GM Form of the BR is to use the Source Code G11, for the discarding of off-specification or out-of-date chemicals or products. If the State's version of the GM form provides a comment section, we suggest the eligible academic entity indicate that the hazardous waste is from a Subpart K laboratory clean-out.

2. Recordkeeping

Today's final rule requires that eligible academic entities choosing to comply with the Subpart K requirements maintain certain records. Specifically, eligible academic entities must maintain the following records: (1) Notification(s) to the appropriate EPA Regional Administrator (or State Director, in authorized States) of its participation in or subsequent withdrawal from Subpart K (using the EPA Site Identification Form (EPA Form 8700–12)); (2) non-profit research institutes and teaching hospitals that are not owned by a college or university must keep the formal written affiliation agreement on file; (3) training records for laboratory workers defined in 40 CFR 262.200 of this Subpart at participating LQG eligible academic entities; (4) documentation of laboratory clean-out activities identifying the laboratory being cleaned out, the date the clean-out begins and is completed, and the volume of hazardous waste generated during the clean-out that is conducted in accordance with § 262.213; and (5) an LMP (an existing plan may be modified to address the specific requirements of this alternative regulation).

EPA is not requiring that a participating eligible academic entity keep all required records, such as notifications, training records, formal written affiliation agreements and the LMP together. However, EPA believes filing all required records together, if practicable, may enhance the ease of accessibility by those individuals needing access to the records at any given time. Additionally, having the records located in one central location may help increase efficiency of inspections by reducing the amount of time expended to locate records that may be kept in several different locations at a participating institution (e.g., training records might normally be filed with personnel files and the LMP might normally be kept at the EH&S department).

EPA is requiring that an eligible academic entity maintain a copy of its notification to participate in this

Subpart on file in-house (i.e., at the participating eligible academic entity) for the duration that the institution remains subject to the Subpart K requirements. Additionally, an eligible academic entity must maintain a copy of its notification to withdraw from Subpart K on file for three years from the date of the notification of withdrawal from the Subpart K requirements.

Because of the expansion in scope of today's final rule, the Agency has added recordkeeping for teaching hospitals and non-profit research institutes, as defined in the final rule. In order to document that a non-profit research institute or a teaching hospital is eligible to opt into Subpart K, the non-profit research institute or teaching hospital must keep on file for the duration that the institution remains subject to the Subpart K requirements a copy of the formal written affiliation agreement that it has with the college or university. For a teaching hospital, the formal written affiliation agreement must consist of a master affiliation agreement and program letter of agreement with the medical college or school with which it is affiliated.

We reiterate that today's final rule does not change the existing recordkeeping requirements for documenting training of trained professionals at LQGs. Under the existing hazardous waste generator regulations, LQGs must comply with the recordkeeping requirements found at 40 CFR 265.16(e). Since this rule simply refers to the existing applicable training requirements pertaining to an eligible academic entity's generator status, training records for trained professionals (i.e., individuals conducting the hazardous waste determination or transferring unwanted materials on-site) must be maintained at LQGs. SQG training requirements at 40 CFR 262.34(d)(5)(iii) do not require retention of training records; therefore, Subpart K does not require training records to be kept for trained professionals at SQGs. Likewise, training records are not required for trained professionals at CESQGs. Furthermore, training records for students are not required for LQGs, SQGs or CESQGs.

In addition, as proposed, today's final rule requires that LQG eligible academic entities maintain documentation that demonstrates that laboratory workers have been trained commensurate with their duties. As with trained professionals, these records must be kept for the duration specified in § 265.16(e). Thus, these training records must be kept until the institution closes or for three years after the departure of a trained professional or laboratory worker.

Additionally, as proposed, today's final rule includes a recordkeeping provision for laboratory clean-out events at participating eligible academic entities. Section 262.213(a)(4) of today's rule requires eligible academic entities to document their clean-out activities. EPA is not mandating a particular record format or media. Instead, participating institutions may determine the most appropriate type of record that best suits their individual capabilities and recordkeeping systems (e.g., filed hard copy, electronic copy). However, the documentation must contain certain information and be retained at the eligible academic entity for three years from the date the laboratory clean-out ends. Specifically, this documentation must identify the particular laboratory that is being cleaned out, the date the clean-out began and ended, and the volume of hazardous waste generated during the clean-out. This documentation is particularly relevant since a laboratory may only utilize the laboratory clean-out provision incentives (i.e., not counting hazardous wastes that are unused commercial chemical products toward its generator status and the 30-day allowance for removal) once per 12-month period per laboratory.

Also, EPA is requiring that a copy of a participating eligible academic entity's LMP be retained on file at the participating institution for the duration that it is regulated under 40 CFR part 262, Subpart K. Furthermore, we recommend that the LMP be dated. While EPA is not requiring that a copy of the LMP at a participating eligible academic entity be kept at each individual site with a unique EPA Identification Number that has opted in, we do require that the LMP is "available" by anyone involved in the management of unwanted materials (e.g., students in the laboratory, faculty, inspectors and other relevant regulatory authorities). The participating eligible academic entity will determine how best to meet the requirements of making the LMP available since EPA envisions that an LMP will be revised periodically. Examples of "available" may include, but are not limited to, posting the LMP on the participating eligible academic entities Web site or other universally accessible electronic system, or keeping a copy of the LMP at each individual site that has opted in.

Today's rule strives to reduce or minimize additional recordkeeping requirements on eligible academic entities participating in Subpart K. As an example, we believe some participating eligible academic entities will revise their current required planning documents, such as the Chemical Hygiene Plan (CHP), which is required by OSHA's Laboratory Standard regulations at 29 CFR 1910.1450. In such cases, there would be minimal additional recordkeeping associated with an LMP. However, we also understand that this may not be true in all cases. When planning documents don't already exist, an additional recordkeeping requirement would be associated with maintaining an LMP since eligible academic entities will need to develop this document to comply with this Subpart.

We solicited comment on whether there should be a requirement to retain records of the labels associated with containers. The information on the label associated with containers, such as the accumulation start date and information sufficient to make a hazardous waste determination, was assumed to be either electronic, via spreadsheets and bar codes, or written logs and in the proposed rule EPA considered requiring that this information be retained on file as a record. However, commenters noted that records of container labels should not be retained because it would be too burdensome and unnecessary. We agree with the commenters and believe that other recordkeeping requirements sufficiently document the information necessary for inspections of laboratories at eligible academic entities. Therefore, the final rule does not require that records be kept for labeling information associated with containers, beyond the time that a hazardous waste determination is made for the contents.

EPA also solicited comment in the proposal on whether maintenance of any other records or reporting requirements should be required under today's Subpart K regulations for purposes of improving implementation, compliance monitoring and assistance by the relevant regulatory authority or for program implementation. Comments submitted by the academic community stated, "do not add recordkeeping." These comments noted that the proposed recordkeeping or documentation requirements for notification, labeling, laboratory clean-outs and the LMP are sufficient to ensure compliance and measure success. We agree with these commenters that additional recordkeeping or reporting requirements beyond what was included in the proposal are unnecessary to ensure compliance with today's rule. Therefore, in today's final rule, we are not including any new or additional

recordkeeping or reporting requirements to the final rule.

E. Implementation and Enforcement

Subpart K blends traditional regulatory requirements with performance-based standards to maximize flexibility and enable better environmental compliance at eligible academic entities. Subpart K also offers greater flexibility in implementation than the existing generator requirements. As such, we are highlighting some points on compliance for a few of the more flexible requirements of Subpart K.

First, only eligible academic entities, as defined in this final rule, may participate in Subpart K. As this rule is optional, eligible academic entities must at all times comply with either the existing generator regulations or with today's Subpart K requirements. Specifically, under today's final rule, an eligible academic entity must decide under which set of standards (existing generator standards or Subpart K) it will operate all of its laboratories that are covered by the same EPA Identification Number (or that are on-site) and notify EPA if it chooses to opt into Subpart K. Eligible academic entities may have several sites with unique EPA Identification Numbers, and each site may have laboratories. It is important to note that eligible academic entities operating laboratories with different EPA Identification Numbers may elect which laboratories will opt into or withdraw from Subpart K on a site-by-site basis.

Second, since this rule is for laboratories only, it is likely that participating eligible academic entities will be subject to two different sets of requirements for hazardous waste management: 40 CFR part 262, Subpart K for unwanted materials generated in its laboratories, and existing generator requirements for all other hazardous wastes generated at these institutions. As a result, implementers (eligible academic entities and compliance and enforcement individuals) will need to determine whether the laboratories at an eligible academic entity are operating under Subpart K (i.e., under different generator regulations) from the remainder of the site for compliance monitoring and assistance.

Third, because the enforcement of the contents of the LMP differs for Part I and Part II, and participating entities may modify an existing plan to meet the LMP requirements, we reiterate the requirements relating to the different parts below (see preamble section III.C.8 or § 262.214 of today's final rule for all requirements related to the LMP). We also remind eligible academic entities that if they choose to modify an existing plan in order to meet the LMP requirements under Subpart K, today's rule does not supersede or otherwise affect the requirements related to that existing plan.

For Part I of the LMP, the eligible academic entity must implement and comply with the specific contents for all the elements they develop for Part I. For example, if an eligible academic entity chooses to use another "equally effective term" for "unwanted material," then it must identify the term in Part I of its LMP and must use this equally effective term consistently. In addition, the equally effective term is subject to all requirements of this rule that apply to unwanted materials. If the eligible academic entity uses another term, but fails to identify the equally effective term in Part I of its LMP, or uses a different term not identified in Part I of its LMP, then the eligible academic entity would be considered in violation of Subpart K.

While an eligible academic entity's LMP must include, and reasonably address, the required elements in Part II of its LMP, if the eligible academic entity does not meet or implement the specific contents of the elements in Part II of its LMP, an enforcement action would not be brought against it for such deviations. For example, an eligible academic entity must describe in Part II of its LMP how it will provide training for laboratory workers and students commensurate with their duties. If the institution describes a training program that specifies the number of hours of classroom training for laboratory workers or students in its LMP, but they receive either a different number of hours, or a different type of training, such as video instruction, the participating institution would not be in violation of Subpart K, provided the laboratory workers and students are trained commensurate with their duties.

Finally, today's rule would not affect a participating eligible academic entity's obligation to respond promptly to any releases of hazardous wastes that may occur, including releases of unwanted materials in the laboratory. Any management of released unwanted material not in compliance with applicable Federal and State hazardous waste requirements could result in an enforcement action. For example, if a spill or release of hazardous waste occurred and was not immediately cleaned up, the participating eligible academic entity could potentially be subject to enforcement for illegal disposal of the hazardous waste. In addition, solid and hazardous waste releases could potentially be addressed through enforcement orders, such as orders under RCRA sections 3013 and 7003.

IV. State Authorization

A. Applicability of Rules in Authorized States

Under section 3006 of RCRA, EPA may authorize a qualified State to administer its own hazardous waste programs within the State in lieu of the Federal program. Following authorization, EPA retains enforcement authority under Sections 3008, 3013, and 7003 of RCRA, although authorized States have primary enforcement responsibility. The standards and requirements for State authorization are found at 40 CFR part 271.

Prior to enactment of the Hazardous and Solid Waste Amendments of 1984 (HSWA), a State with final RCRA authorization administered its hazardous waste program entirely in lieu of EPA administering the Federal program in that State. The Federal requirements no longer applied in the authorized State, and EPA could not issue permits for any facilities in that State, since only the State was authorized to issue RCRA permits. When new, more stringent Federal requirements were promulgated, the State was obligated to enact equivalent authorities within specified time frames. However, the new Federal requirements did not take effect in an authorized State until the State adopted the Federal requirements as State law.

In contrast, under RCRA section 3006(g) (42 U.S.C. 6926(g)), which was added by HSWA, new requirements and prohibitions imposed under HSWA authority take effect in authorized States at the same time that they take effect in unauthorized States. EPA is directed by the statute to implement these requirements and prohibitions in authorized States, including the issuance of permits, until the State is granted authorization to do so. While States must still adopt HSWA related provisions as State law to retain final authorization, EPA implements the HSWA provisions in authorized States until the States do so.

Authorized States are required to modify their programs only when EPA enacts Federal requirements that are more stringent or broader in scope than the existing Federal requirements. RCRA section 3009 allows the States to impose standards more stringent than those in the Federal program (see also 40 CFR 271.1). Therefore, authorized States may, but are not required to, adopt Federal regulations, both HSWA

and non-HSWA, that are considered less stringent than previous Federal regulations.

B. Effect on State Authorization

Today's rule finalizes regulations that are not being promulgated under the authority of HSWA. Thus, the standards finalized today would be applicable on the effective date only in those States that do not have final authorization of their base RCRA programs. Moreover, authorized States are required to modify their programs only when EPA promulgates Federal regulations that are more stringent or broader in scope than the authorized State regulations. For those changes that are less stringent or reduce the scope of the Federal program, States are not required to modify their program. This is a result of section 3009 of RCRA, which allows States to impose more stringent regulations than the Federal program. However, today's final rule is considered to be neither more nor less stringent than the current standards. Therefore, authorized States would not be required to modify their programs to adopt regulations consistent with and equivalent to today's standards. Nevertheless, because EPA believes that today's rule will increase the ability of eligible academic entities to comply with the RCRA hazardous waste generator regulations which would likely lead to greater environmental protection, EPA strongly encourages States to adopt today's rule. Eligible academic entities located in authorized States wishing to be subject to Subpart K do not have this option until their State has adopted the final rule.

V. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order (EO) 12866 (58 FR 51735, October 4, 1993), this action is a "significant regulatory action" since this action may raise novel legal or policy issues [3(f)(4)]. Accordingly, EPA submitted this action to the Office of Management and Budget (OMB) for review under EO 12866. Any changes made in response to OMB recommendations have been documented in the docket for this action.

This rule is projected to result in benefits to society in the form of cost savings. The aggregate cost savings for all eligible academic entities that are projected to take advantage of the final rule is estimated to be $396,000 per year. This figure is significantly below the $100 million threshold [9] established under part 3(f)(1) of the Order. Thus, this rule is not considered to be an "economically significant action." However, in an effort to comply with the spirit of the Executive Order, we have prepared an economic assessment in support of today's action. This document is entitled: *Assessment of Potential Costs, Benefits and Other Impacts for the Revised Standards Applicable to Generators of Hazardous Waste; Subpart K—Laboratories Owned by Eligible Academic Entities.* This document is otherwise referred to as the "*Economic Assessment.*" The docket established for today's rulemaking maintains a copy of this *Economic Assessment* for public review. For a more detailed discussion regarding the comments received on the economic assessment for the proposed rule, refer to the Response to Comments Document which can be found in the docket for today's final rule.

1. Introduction to the Economic Assessment for the Final Rule

The value of any regulatory action is traditionally measured by the net change in social welfare that it generates. The Agency's economic assessment conducted as part of EPA's obligations under Executive Order 12866 evaluates costs, cost savings (benefits), waste quantities affected, and other impacts, such as environmental justice, children's health, unfunded mandates, regulatory takings, and small entity impacts. To conduct this analysis, we prepared a baseline characterization, developed and implemented a methodology for examining impacts, and followed appropriate guidelines and procedures for examining equity considerations, children's health, and other impacts.

2. Baseline Specification

Proper baseline specification is vital to the accurate assessment of incremental costs, benefits, and other economic impacts associated with any rulemaking. The baseline essentially describes the world absent today's final rulemaking. The incremental impacts of today's final rule are evaluated by assessing anticipated post-rule responses with respect to baseline conditions and actions. The baseline, as applied in this analysis, reflects the practices and requirements of eligible academic entities under the existing hazardous waste generator regulations. A full discussion of the baseline specification is presented in the *Economic Assessment.*

3. Analytical Methodology, Primary Data Sources, and Key Assumptions

The first step in the methodology for the economic assessment of today's final rule was to use data from EPA's *2005 National Biennial Report* database and other sources to estimate the number of eligible academic entities that generate laboratory hazardous wastes and may be affected by the final rule. Several of the comments submitted to EPA expressed concern that in the proposed rule, EPA underestimated the fraction of hazardous waste generated in teaching and research laboratories at colleges and universities compared to total hazardous waste generated at colleges and universities. In contrast to the 9 percent estimate used by EPA for its economic analysis for the proposed rule, these commenters stated that in their experience, laboratory hazardous waste represents a much larger portion (60 to 95 percent) of a college or university's total hazardous waste stream. Several commenters provided detailed data on their hazardous waste generation especially laboratory hazardous waste. To address this concern, a more refined methodology for estimating the quantity of hazardous waste generated by laboratories at eligible academic entities was developed. For more details about the methodology changes, see section III.A.1 of today's preamble or the economic assessment for today's final rule.

Since today's final rule is equally as stringent as the existing Federal hazardous waste regulations, authorized States are not required to adopt Subpart K. Thus, once the number of eligible academic entities was determined, for purposes of the rule's *Economic Assessment,* EPA estimated how many States would adopt Subpart K. EPA assumed that States which have historically adopted at least 85 percent of RCRA's rule changes over a five-year period will adopt Subpart K. Thus, 29 States and Puerto Rico are projected to adopt today's final rule, while 21 States are assumed to not adopt today's rule.

In order to model the various scenarios at eligible academic entities, we employed four factors to categorize eligible academic entities: institution type, laboratory system size, hazardous waste generator status, and whether an eligible academic entity operates a CAA. Using these categorizations, the *Economic Assessment* examines the costs and savings of this rule's new requirements, such as recordkeeping, reporting, training, laboratory clean-outs, etc., compared to the existing

[9] The $100 million threshold applies to both costs, and cost savings.

hazardous waste generator requirements, to determine the net overall cost or cost savings of Subpart K which includes all of these factors.

Finally, a specific annualized before-tax cost analysis was conducted for each affected entity. Before-tax incremental compliance costs were used because they represent a resource or social cost of the rulemaking. A discount rate (real rate of return) of 7 percent was used covering the estimated period of service or life of the product. All costs are adjusted to year 2008 dollars using the Implicit Price Deflator for Gross Domestic Product.

4. Key Analytical Limitations

The Agency was not able to complete a formal RCRA Section 3007 survey of laboratories at colleges and universities, and non-profit research institutes and teaching hospitals that are either owned by or have a formal written affiliation agreement with a college or university. Consequently, for this assessment, it was necessary to rely on publicly available data. The key analytical limitations associated with these data are briefly summarized in the bullets below. Additional limitations and assumptions related to the economic analysis are discussed in more detail in the *Economic Assessment.*

- The analysis relies heavily on information generated in 2005 through a survey by NACUBO and, while this survey represents the best available source of data, the facilities captured by the survey may not be representative of the colleges and universities impacted by the rule.
- This analysis relies on BR data which includes hazardous waste quantity data for a limited number of SQGs and CESQGs. Thus, the number of entities within the universe of potentially eligible academic entities is uncertain.
- Data were not available to estimate the number of laboratories at non-profit research institutes and teaching hospitals. College and university data and Web-based internet information were used to estimate the number of laboratories at these sites.
- The cost impact analysis is very sensitive to the number and size of containers requiring labeling in the laboratory. The analysis assumes that one-third of the containers are pint-size, one-third are quart-size and one-third are gallon-size.
- An eligible academic entity can develop a single LMP that can cover all its laboratories regardless of whether they are located in sites with separate EPA Identification Numbers. Data limitations prevented us from determining which sites generating laboratory hazardous waste may choose to operate under the same LMP.

5. Findings

The findings presented here reflect a number of analytical assumptions and limitations, as touched on above, and as described in more detail in the *Economic Assessment.* Furthermore, we have analyzed additional scenarios and conducted sensitivity analyses that are not presented in today's preamble. Readers wanting to gain a full understanding of our analytical methodology, data, findings, assumptions, and limitations are encouraged to read the *Economic Assessment* document prepared in support of this final rule.

In summary, we have identified a total of 1,580 facilities in operation in the U.S., which generate laboratory hazardous wastes and are eligible academic entities as defined under today's rulemaking. Of this total, 397 are LQGs, 759 are SQGs, and the remaining 424 are CESQGs. However as stated above, we assume the States which have historically adopted at least 85 percent of RCRA's rule changes over a five-year period will adopt Subpart K; thus the universe of eligible academic entities located in these States is 169 LQGs, 323 SQGs and 181 CESQGs (673 facilities in total). Out of this number of eligible academic entities located in the States that adopt Subpart K, we assumed for this analysis that eligible academic entities that experience cost savings by opting into Subpart K will be the only eligible academic entities that participate in the final rule. Thus, the final rule would provide annual aggregate net cost savings of approximately $396,000. These savings would be realized by the estimated 112 eligible academic entities that we project would choose to operate under Subpart K. The greatest savings would accrue to the 25 LQGs projected to elect to be regulated under Subpart K; the analysis estimates average annual cost savings of approximately $12,200 per LQG opting into the rule. Lesser savings would be realized by the 87 SQGs that are projected to elect to be regulated under Subpart K; for each SQG opting into Subpart K, we estimate average annual cost savings of approximately $1,000. Under this *Economic Assessment,* all CESQG eligible academic entities demonstrated cost increases by operating under Subpart K, so we assumed that CESQGs would not opt into the final rule. Overall, average annual savings for eligible academic entities operating under Subpart K are estimated at approximately $3,500 per entity.

An important benefit of Subpart K for some eligible academic entities will be the opportunity to maintain their typical RCRA generator status because of today's rule's laboratory clean-out provisions (see § 262.213). Eligible academic entities that are able to maintain their normal generator status rather than episodically increasing their generator status by generating laboratory clean-out waste can realize savings in reporting, planning, and overall administrative costs when operating under Subpart K. Another significant portion of the cost savings achieved reflects a reduction in the number of off-site hazardous waste shipments, thereby reducing shipment costs, particularly among colleges, universities, and research institutes that are able to maintain their typical generator status from LQG to SQG as a result of the laboratory clean-out provisions. Such a change allows for longer accumulation times and increased efficiencies in the number of laboratories visited per day for entities without CAAs, in order to remove unwanted materials. In addition to reduced shipments, much of the benefits of the rule include reduced costs for on-site travel. This largely reflects the stipulation that a hazardous waste determination for unwanted material in the laboratory may occur at any time before it is removed from the laboratory or within four days of arrival at an on-site CAA or TSDF, unlike the existing generator regulations that stipulate that the hazardous waste determination must be made at the point of generation.

The overall goal of today's action is to promote environmental protection and public health through safer management of laboratory hazardous waste at eligible academic entities. The Agency has not monetized or quantitatively estimated the human health or environmental benefits. However, this rule is expected to result in numerous environmental benefits. The structured nature of the LMP is expected to result in safer laboratory practices and increased awareness of hazardous waste management. This will minimize exposure of humans and the environment to hazardous wastes. Ultimately, LMPs are expected to improve the way eligible academic entities coordinate and integrate their hazardous waste management activities and enhance awareness about proper laboratory waste handling techniques. In addition to the LMP, the rule specifies streamlined, yet cost-neutral training requirements that are expected to increase awareness of waste hazards

and so reduce the potential for mismanagement of the hazardous waste generated in laboratories. Also, the Agency included incentives in today's final rule to encourage more frequent laboratory clean-outs of unwanted and unused reagents, thus reducing the potential for accidental releases of these chemicals into the environment. Further, EPA expects to see a benefit from allowing CESQGs to opt into the rule, because those hazardous wastes generated above CESQGs' monthly volume limits during a laboratory clean-out will be managed within the Subtitle C system, as opposed to being managed as a non-hazardous waste. Finally, we anticipate additional non-quantified economic gains through improved hazardous waste management practices, waste minimization, and waste coordination activities.

B. Paperwork Reduction Act

The information collection requirements in this final rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The Information Collection Request (ICR) document prepared by EPA has been assigned EPA ICR Number 2317.01.

The Paperwork Reduction Act requires that EPA estimate the burden (time, effort, financial resources) on respondents to comply with all actions that involve the collection of information, such as recordkeeping, reporting, or disclosure requirements or other information collection activities required by this rulemaking. Below is a description of the information collection activities required by today's rulemaking.

Since this rule establishes an alternative set of hazardous waste generator requirements for eligible academic entities' laboratories, it is important that EPA or the authorized States know to which set of regulations an eligible academic entity is subject. Therefore, EPA has determined at 40 CFR 262.203 and 262.204 that it is necessary to require an eligible academic entity to submit a notification to the EPA Regional Administrator (or State Director in authorized States) indicating that it is electing to be subject to or withdrawing from Subpart K for all laboratories under the same EPA Identification Number (or on the same site, in the absence of an EPA Identification Number). The Site Identification Form must be used by eligible academic entities to notify the appropriate authority of its participation in or withdrawal from Subpart K. Under 40 CFR 262.206, 262.208, 262.10, 262.11, and 262.12 of Subpart K, an eligible academic entity must label containers of unwanted materials, as specified. These labeling requirements are necessary to: Demonstrate compliance with Subpart K, alert individuals handling the containers of their contents to ensure proper management, assist trained professionals in making the hazardous waste determination and assigning the appropriate hazardous code(s), ensure emergency responders can quickly ascertain and assess the contents of a container in case of an emergency, and utilize for enforcement and monitoring purposes.

Part 40 CFR 262.207 of Subpart K requires training, commensurate with duties, for all students and laboratory workers working in a laboratory. This training is necessary to ensure that unwanted materials are handled safely and in an environmentally sound manner and in compliance with Subpart K. In addition, eligible academic entities that are LQGs must maintain the training records for laboratory workers.

Under 40 CFR 262.313, eligible academic entities must develop and maintain documentation of laboratory clean-outs to ensure compliance with Subpart K. Also under 40 CFR 262.214, eligible academic entities are required to develop, implement and maintain an LMP to document their practices for complying with the performance-based requirements of Subpart K.

Section 3007(b) of RCRA and 40 CFR part 2, Subpart B, defines EPA's general policy on public disclosure of information, and contains provisions for confidentiality. However, the Agency does not anticipate that eligible academic entities will assert any claims of confidentiality in association with the final rule. If such a claim were asserted, EPA must and will treat the information in accordance with the regulations cited above. EPA also will assure that this information collection complies with the Privacy Act of 1974 and OMB Circular 108.

According to the estimates provided in the ICR for this final rule, the average annual incremental burden of new paperwork requirements to respondents as a result of today's final rule is approximately 12,557 hours and $461,632. These estimates are a total net burden to respondents meaning that the burden relief to eligible academic entities under the existing regulations was subtracted from the new paperwork requirements of Subpart K. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

The Agency received one consolidated comment representing six commenters on the ICR for the proposed rule. The comment on burden estimates focused on the notification requirement for Subpart K. In general, the commenters believe the burden estimates for notifying the appropriate authority of an eligible academic entity's decision to opt into or out of Subpart K (see §§ 262.203 and 262.204) were fairly accurate and supported use of the Site Identification Form as the mechanism to be used for notification. The comment specifically stated, "* * * burden for the college to notify appears to be accurate and would be the same regardless of whether a letter or Site Identification Form is used. However, the burden for the implementer for clerical time should be cut in half, from 0.5 to 0.25." In addition the comment stated, "* * * the proposed notification requirement discussed on **Federal Register** notice page 29727 under section B.3 could be met by using the Site Identification Form (EPA form 8700–12)." A vast majority of the comments received supported the use of the Site Identification Form over the use of a letter for notification purposes. Thus, the Agency has chosen to finalize the requirement for eligible academic entities to use the Site Identification Form for notification.

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

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act, or any other statute, unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

The RFA provides default definitions for each type of small entity. Small entities are defined as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. After considering the economic impacts of today's final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. Under the final rule, no small eligible academic entities are projected to adopt the regulation unless they expect to experience a net decrease in costs associated with managing their laboratory hazardous waste. Based on these findings, we do not believe that this rule will result in significant economic impacts on a substantial number of small entities.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, Local, and Tribal governments and the private sector. Under § 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, Local, and Tribal governments, in the aggregate, or to the private sector, of $100 million or more in any one 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.

Today's final rule contains no Federal mandates (under the regulatory provisions of Title II of the UMRA) for State, Local, or Tribal governments or the private sector. The UMRA generally excludes from the definition of "Federal intergovernmental mandate," duties that arise from participation in a voluntary Federal program. This rule is a voluntary program because the States are not required to adopt these requirements as a condition of authorization (or otherwise). Furthermore, EPA has determined that this rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, Local, and Tribal governments, in the aggregate, or the private sector in any one year. The total net benefits (cost savings) of this action are estimated to be $396,000 per year. Finally, EPA has determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments.

E. Executive Order 13132: Federalism

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

Today's rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in the Order. The rule focuses on a set of alternative generator requirements for eligible academic entities generating laboratory hazardous wastes, without affecting the relationships between Federal and State governments. Thus, Executive Order 13132 does not apply to this rule.

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

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by Tribal officials in the development of regulatory policies that have Tribal implications." This final rule does not have Tribal implications, as specified in Executive Order 13175. EPA has concluded that this rule may have Tribal implications only to the extent that qualifying academic institutions could be affected if they have laboratories that are in some way affiliated with Tribal lands. However, this rule will neither impose substantial direct compliance costs on Tribal governments nor preempt Tribal law.

EPA did not consult directly with representatives of Tribal governments in the process of developing this rule. However, EPA did conduct an extensive outreach process with States and potentially affected entities. Furthermore, we received no comments from any Tribal governments on the proposed rule. Thus, we believe we have captured the concerns that would have been expressed by representatives of Tribal governments.

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

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

the Agency must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

Today's final rule is not subject to the Executive Order because it is not economically significant and because the Agency does not have reason to believe the environmental health or safety risks addressed by this action present a disproportionate risk to children.

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

This rule is not subject to Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355 (May 22, 2001)) because it is not an economically significant action under Executive Order 12866. This rule will not seriously disrupt energy supply, distribution patterns, prices, imports or exports. Furthermore, this rule is designed to improve economic efficiency by streamlining the management of laboratory hazardous wastes.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law 104–113, section 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This action does not involve technical standards. Therefore, EPA did not consider the use of any voluntary consensus standards.

J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898 (59 FR 7629 (Feb. 16, 1994)) establishes Federal executive policy on environmental justice. Its main provision directs Federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

EPA has determined that this final rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations. This final action is designed to ensure more effective and efficient management of laboratory hazardous wastes.

K. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A Major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2). This rule will be effective December 31, 2008.

List of Subjects

40 CFR Part 261

Environmental protection, Hazardous waste, Recycling, Reporting and recordkeeping requirements.

40 CFR Part 262

Environmental protection, Exports, Hazardous materials transportation, Hazardous waste, Imports, Labeling, Packaging and containers, Reporting and recordkeeping requirements.

Dated: November 18, 2008.

Stephen L. Johnson,

Administrator.

■ For the reasons set out in the preamble, Parts 261 and 262 of title 40, chapter I of the Code of Federal Regulations are amended as follows:

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

■ 1. The authority citation for part 261 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921, 6922, 6924(y), and 6938.

■ 2. Section 261.5 is amended by removing the period at the end of paragraph (c)(6) and adding in its place a "semicolon" and by adding paragraph (c)(7) to read as follows:

§ 261.5 Special requirements for hazardous waste generated by conditionally exempt small quantity generators.

* * * * *

(c) * * *

(7) Is a hazardous waste that is an unused commercial chemical product (listed in 40 CFR part 261, subpart D or exhibiting one or more characteristics in 40 CFR part 261, subpart C) that is generated solely as a result of a laboratory clean-out conducted at an eligible academic entity pursuant to § 262.213. For purposes of this provision, the term eligible academic entity shall have the meaning as defined in § 262.200 of Part 262.

* * * * *

PART 262—STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE

■ 3. The authority citation for part 262 continues to read as follows:

Authority: 42 U.S.C. 6906, 6912, 6922–6925, 6937, and 6938.

Subpart A—General

■ 4. Section 262.10 is amended by adding paragraph (l) to read as follows:

§ 262.10 Purpose, scope, and applicability.

* * * * *

(l) The laboratories owned by an eligible academic entity that chooses to be subject to the requirements of Subpart K of this part are not subject to (for purposes of this paragraph, the terms "laboratory" and "eligible academic entity" shall have the meaning as defined in § 262.200 of Subpart K of this part).:

(1) The requirements of § 262.11 or § 262.34(c), for large quantity generators and small quantity generators, except as provided in Subpart K, and

(2) The conditions of § 261.5(b), for conditionally exempt small quantity generators, except as provided in Subpart K.

■ 5. Part 262 is amended by adding Subpart K to read as follows:

Subpart K—Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities

Sec.

262.200 Definitions for this subpart.
262.201 Applicability of this subpart.
262.202 This subpart is optional.

262.203 How an eligible academic entity indicates it will be subject to the requirements of this subpart.
262.204 How an eligible academic entity indicates it will withdraw from the requirements of this subpart.
262.205 Summary of the requirements of this subpart.
262.206 Labeling and management standards for containers of unwanted material in the laboratory.
262.207 Training.
262.208 Removing containers of unwanted material from the laboratory.
262.209 Where and when to make the hazardous waste determination and where to send containers of unwanted material upon removal from the laboratory.
262.210 Making the hazardous waste determination in the laboratory before the unwanted material is removed from the laboratory.
262.211 Making the hazardous waste determination at an on-site central accumulation area.
262.212 Making the hazardous waste determination at an on-site interim status or permitted treatment, storage or disposal facility.
262.213 Laboratory clean-outs.
262.214 Laboratory management plan.
262.215 Unwanted material that is not solid or hazardous waste.
262.216 Non-laboratory hazardous waste generated at an eligible academic entity.

Subpart K—Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities

§ 262.200 Definitions for this subpart.

The following definitions apply to this subpart:

Central accumulation area means an on-site hazardous waste accumulation area subject to either § 262.34(a) (or 262.34(j) and (k) for Performance Track members) of this part (large quantity generators); or § 262.34(d)–(f) of this part (small quantity generators). A central accumulation area at an eligible academic entity that chooses to be subject to this subpart must also comply with § 262.211 when accumulating unwanted material and/or hazardous waste.

College/University means a private or public, post-secondary, degree-granting, academic institution, that is accredited by an accrediting agency listed annually by the U.S. Department of Education.

Eligible academic entity means a college or university, or a non-profit research institute that is owned by or has a formal written affiliation agreement with a college or university, or a teaching hospital that is owned by or has a formal written affiliation agreement with a college or university.

Formal written affiliation agreement for a non-profit research institute means a written document that establishes a relationship between institutions for the purposes of research and/or education and is signed by authorized representatives, as defined by § 260.10, from each institution. A relationship on a project-by-project or grant-by-grant basis is not considered a formal written affiliation agreement. A *formal written affiliation agreement* for a teaching hospital means a master affiliation agreement and program letter of agreement, as defined by the Accreditation Council for Graduate Medical Education, with an accredited medical program or medical school.

Laboratory means an area owned by an eligible academic entity where relatively small quantities of chemicals and other substances are used on a non-production basis for teaching or research (or diagnostic purposes at a teaching hospital) and are stored and used in containers that are easily manipulated by one person. Photo laboratories, art studios, and field laboratories are considered laboratories. Areas such as chemical stockrooms and preparatory laboratories that provide a support function to teaching or research laboratories (or diagnostic laboratories at teaching hospitals) are also considered laboratories.

Laboratory clean-out means an evaluation of the inventory of chemicals and other materials in a laboratory that are no longer needed or that have expired and the subsequent removal of those chemicals or other unwanted materials from the laboratory. A clean-out may occur for several reasons. It may be on a routine basis (e.g., at the end of a semester or academic year) or as a result of a renovation, relocation, or change in laboratory supervisor/occupant. A regularly scheduled removal of unwanted material as required by § 262.208 does not qualify as a laboratory clean-out.

Laboratory worker means a person who handles chemicals and/or unwanted material in a laboratory and may include, but is not limited to, faculty, staff, post-doctoral fellows, interns, researchers, technicians, supervisors/managers, and principal investigators. A person does not need to be paid or otherwise compensated for his/her work in the laboratory to be considered a laboratory worker. Undergraduate and graduate students in a supervised classroom setting are not laboratory workers.

Non-profit research institute means an organization that conducts research as its primary function and files as a non-profit organization under the tax code of 26 U.S.C. 501(c)(3).

Reactive acutely hazardous unwanted material means an unwanted material that is one of the acutely hazardous commercial chemical products listed in § 261.33(e) for reactivity.

Teaching hospital means a hospital that trains students to become physicians, nurses or other health or laboratory personnel.

Trained professional means a person who has completed the applicable RCRA training requirements of § 265.16 for large quantity generators, or is knowledgeable about normal operations and emergencies in accordance with § 262.34(d)(5)(iii) for small quantity generators and conditionally exempt small quantity generators. A trained professional may be an employee of the eligible academic entity or may be a contractor or vendor who meets the requisite training requirements.

Unwanted material means any chemical, mixtures of chemicals, products of experiments or other material from a laboratory that is no longer needed, wanted or usable in the laboratory and that is destined for hazardous waste determination by a trained professional. Unwanted materials include reactive acutely hazardous unwanted materials and materials that may eventually be determined not to be solid waste pursuant to § 261.2, or a hazardous waste pursuant to § 261.3. If an eligible academic entity elects to use another equally effective term in lieu of "unwanted material," as allowed by § 262.206(a)(1)(i), the equally effective term has the same meaning and is subject to the same requirements as "unwanted material" under this subpart.

Working container means a small container (*i.e.*, two gallons or less) that is in use at a laboratory bench, hood, or other work station, to collect unwanted material from a laboratory experiment or procedure.

§ 262.201 Applicability of this subpart.

(a) Large quantity generators and small quantity generators. This subpart provides alternative requirements to the requirements in §§ 262.11 and 262.34(c) for the hazardous waste determination and accumulation of hazardous waste in laboratories owned by eligible academic entities that choose to be subject to this subpart, provided that they complete the notification requirements of § 262.203.

(b) Conditionally exempt small quantity generators. This subpart provides alternative requirements to the conditional exemption in § 261.5(b) for

the accumulation of hazardous waste in laboratories owned by eligible academic entities that choose to be subject to this subpart, provided that they complete the notification requirements of § 262.203.

§ 262.202 This subpart is optional.

(a) Large quantity generators and small quantity generators: Eligible academic entities have the option of complying with this subpart with respect to its laboratories, as an alternative to complying with the requirements of §§ 262.11 and 262.34(c).

(b) Conditionally exempt small quantity generators. Eligible academic entities have the option of complying with this subpart with respect to its laboratories, as an alternative to complying with the conditional exemption of § 261.5(b).

§ 262.203 How an eligible academic entity indicates it will be subject to the requirements of this subpart.

(a) An eligible academic entity must notify the appropriate EPA Regional Administrator in writing, using the RCRA Subtitle C Site Identification Form (EPA Form 8700–12), that it is electing to be subject to the requirements of this subpart for all the laboratories owned by the eligible academic entity under the same EPA Identification Number. An eligible academic entity that is a conditionally exempt small quantity generator and does not have an EPA Identification Number must notify that it is electing to be subject to the requirements of this subpart for all the laboratories owned by the eligible academic entity that are on-site, as defined by § 260.10. An eligible academic entity must submit a separate notification (Site Identification Form) for each EPA Identification Number (or site, for conditionally exempt small quantity generators) that is electing to be subject to the requirements of this subpart, and must submit the Site Identification Form before it begins operating under this subpart.

(b) When submitting the Site Identification Form, the eligible academic entity must, at a minimum, fill out the following fields on the form:

(1) Reason for Submittal.

(2) Site EPA Identification Number (except for conditionally exempt small quantity generators).

(3) Site Name.

(4) Site Location Information.

(5) Site Land Type.

(6) North American Industry Classification System (NAICS) Code(s) for the Site.

(7) Site Mailing Address.

(8) Site Contact Person.

(9) Operator and Legal Owner of the Site.

(10) Type of Regulated Waste Activity.

(11) Certification.

(c) An eligible academic entity must keep a copy of the notification on file at the eligible academic entity for as long as its laboratories are subject to this subpart.

(d) A teaching hospital that is not owned by a college or university must keep a copy of its formal written affiliation agreement with a college or university on file at the teaching hospital for as long as its laboratories are subject to this subpart.

(e) A non-profit research institute that is not owned by a college or university must keep a copy of its formal written affiliation agreement with a college or university on file at the non-profit research institute for as long as its laboratories are subject to this subpart.

§ 262.204 How an eligible academic entity indicates it will withdraw from the requirements of this subpart.

(a) An eligible academic entity must notify the appropriate EPA Regional Administrator in writing, using the RCRA Subtitle C Site Identification Form (EPA Form 8700–12), that it is electing to no longer be subject to the requirements of this subpart for all the laboratories owned by the eligible academic entity under the same EPA Identification Number and that it will comply with the requirements of §§ 262.11 and 262.34(c) for small quantity generators and large quantity generators. An eligible academic entity that is a conditionally exempt small quantity generator and does not have an EPA Identification Number must notify that it is withdrawing from the requirements of this subpart for all the laboratories owned by the eligible academic entity that are on-site and that it will comply with the conditional exemption in § 261.5(b). An eligible academic entity must submit a separate notification (Site Identification Form) for each EPA Identification Number (or site, for conditionally exempt small quantity generators) that is withdrawing from the requirements of this subpart and must submit the Site Identification Form before it begins operating under the requirements of §§ 262.11 and 262.34(c) for small quantity generators and large quantity generators, or § 261.5(b) for conditionally exempt small quantity generators.

(b) When submitting the Site Identification Form, the eligible academic entity must, at a minimum, fill out the following fields on the form:

(1) Reason for Submittal.

(2) Site EPA Identification Number (except for conditionally exempt small quantity generators).

(3) Site Name.

(4) Site Location Information.

(5) Site Land Type.

(6) North American Industry Classification System (NAICS) Code(s) for the Site.

(7) Site Mailing Address.

(8) Site Contact Person.

(9) Operator and Legal Owner of the Site.

(10) Type of Regulated Waste Activity.

(11) Certification.

(c) An eligible academic entity must keep a copy of the withdrawal notice on file at the eligible academic entity for three years from the date of the notification.

§ 262.205 Summary of the requirements of this subpart.

An eligible academic entity that chooses to be subject to this subpart is not required to have interim status or a RCRA Part B permit for the accumulation of unwanted material and hazardous waste in its laboratories, provided the laboratories comply with the provisions of this subpart and the eligible academic entity has a Laboratory Management Plan (LMP) in accordance with § 262.214 that describes how the laboratories owned by the eligible academic entity will comply with the requirements of this subpart.

§ 262.206 Labeling and management standards for containers of unwanted material in the laboratory.

An eligible academic entity must manage containers of unwanted material while in the laboratory in accordance with the requirements in this section.

(a) Labeling: Label unwanted material as follows:

(1) The following information must be affixed or attached to the container:

(i) The words "unwanted material" or another equally effective term that is to be used consistently by the eligible academic entity and that is identified in Part I of the Laboratory Management Plan, and

(ii) Sufficient information to alert emergency responders to the contents of the container. Examples of information that would be sufficient to alert emergency responders to the contents of the container include, but are not limited to:

(A) The name of the chemical(s),

(B) The type or class of chemical, such as organic solvents or halogenated organic solvents.

(2) The following information may be affixed or attached to the container, but

must at a minimum be associated with the container:

(i) The date that the unwanted material first began accumulating in the container, and

(ii) Information sufficient to allow a trained professional to properly identify whether an unwanted material is a solid and hazardous waste and to assign the proper hazardous waste code(s), pursuant to § 262.11. Examples of information that would allow a trained professional to properly identify whether an unwanted material is a solid or hazardous waste include, but are not limited to:

(A) The name and/or description of the chemical contents or composition of the unwanted material, or, if known, the product of the chemical reaction,

(B) Whether the unwanted material has been used or is unused,

(C) A description of the manner in which the chemical was produced or processed, if applicable.

(b) Management of Containers in the Laboratory: An eligible academic entity must properly manage containers of unwanted material in the laboratory to assure safe storage of the unwanted material, to prevent leaks, spills, emissions to the air, adverse chemical reactions, and dangerous situations that may result in harm to human health or the environment. Proper container management must include the following:

(1) Containers are maintained and kept in good condition and damaged containers are replaced, overpacked, or repaired, and

(2) Containers are compatible with their contents to avoid reactions between the contents and the container; and are made of, or lined with, material that is compatible with the unwanted material so that the container's integrity is not impaired, and

(3) Containers must be kept closed at all times, except:

(i) When adding, removing or consolidating unwanted material, or

(ii) A working container may be open until the end of the procedure or work shift, or until it is full, whichever comes first, at which time the working container must either be closed or the contents emptied into a separate container that is then closed, or

(iii) When venting of a container is necessary.

(A) For the proper operation of laboratory equipment, such as with in-line collection of unwanted materials from high performance liquid chromatographs, or

(B) To prevent dangerous situations, such as build-up of extreme pressure.

§ 262.207 Training.

An eligible academic entity must provide training to all individuals working in a laboratory at the eligible academic entity, as follows:

(a) Training for laboratory workers and students must be commensurate with their duties so they understand the requirements in this subpart and can implement them.

(b) An eligible academic entity can provide training for laboratory workers and students in a variety of ways, including, but not limited to:

(1) Instruction by the professor or laboratory manager before or during an experiment; or

(2) Formal classroom training; or

(3) Electronic/written training; or

(4) On-the-job training; or

(5) Written or oral exams.

(c) An eligible academic entity that is a large quantity generator must maintain documentation for the durations specified in § 265.16(e) demonstrating training for all laboratory workers that is sufficient to determine whether laboratory workers have been trained. Examples of documentation demonstrating training can include, but are not limited to, the following:

(1) Sign-in/attendance sheet(s) for training session(s); or

(2) Syllabus for training session; or

(3) Certificate of training completion; or

(4) Test results.

(d) A trained professional must:

(1) Accompany the transfer of unwanted material and hazardous waste when the unwanted material and hazardous waste is removed from the laboratory, and

(2) Make the hazardous waste determination, pursuant to § 262.11, for unwanted material.

§ 262.208 Removing containers of unwanted material from the laboratory.

(a) Removing containers of unwanted material on a regular schedule. An eligible academic entity must either:

(1) Remove all containers of unwanted material from each laboratory on a regular interval, not to exceed 6 months; or

(2) Remove containers of unwanted material from each laboratory within 6 months of each container's accumulation start date.

(b) The eligible academic entity must specify in Part I of its Laboratory Management Plan whether it will comply with paragraph (a)(1) or (a)(2) of this section for the regular removal of unwanted material from its laboratories.

(c) The eligible academic entity must specify in Part II of its Laboratory Management Plan how it will comply with paragraph (a)(1) or (a)(2) of this section and develop a schedule for regular removals of unwanted material from its laboratories.

(d) Removing containers of unwanted material when volumes are exceeded.

(1) If a laboratory accumulates a total volume of unwanted material (including reactive acutely hazardous unwanted material) in excess of 55 gallons before the regularly scheduled removal, the eligible academic entity must ensure that all containers of unwanted material in the laboratory (including reactive acutely hazardous unwanted material):

(i) Are marked on the label that is associated with the container (or on the label that is affixed or attached to the container, if that is preferred) with the date that 55 gallons is exceeded; and

(ii) Are removed from the laboratory within 10 calendar days of the date that 55 gallons was exceeded, or at the next regularly scheduled removal, whichever comes first.

(2) If a laboratory accumulates more than 1 quart of reactive acutely hazardous unwanted material before the regularly scheduled removal, then the eligible academic entity must ensure that all containers of reactive acutely hazardous unwanted material:

(i) Are marked on the label that is associated with the container (or on the label that is affixed or attached to the container, if that is preferred) with the date that 1 quart is exceeded; and

(ii) Are removed from the laboratory within 10 calendar days of the date that 1 quart was exceeded, or at the next regularly scheduled removal, whichever comes first.

§ 262.209 Where and when to make the hazardous waste determination and where to send containers of unwanted material upon removal from the laboratory.

(a) Large quantity generators and small quantity generators—an eligible academic entity must ensure that a trained professional makes a hazardous waste determination, pursuant to § 262.11, for unwanted material in any of the following areas:

(1) In the laboratory before the unwanted material is removed from the laboratory, in accordance with § 262.210;

(2) Within 4 calendar days of arriving at an on-site central accumulation area, in accordance with § 262.211; and

(3) Within 4 calendar days of arriving at an on-site interim status or permitted treatment, storage or disposal facility, in accordance with § 262.212.

(b) Conditionally exempt small quantity generators—an eligible academic entity must ensure that a trained professional makes a hazardous

waste determination, pursuant to § 262.11, for unwanted material in the laboratory before the unwanted material is removed from the laboratory, in accordance with § 262.210.

§ 262.210 Making the hazardous waste determination in the laboratory before the unwanted material is removed from the laboratory.

If an eligible academic entity makes the hazardous waste determination, pursuant to § 262.11, for unwanted material in the laboratory, it must comply with the following:

(a) A trained professional must make the hazardous waste determination, pursuant to § 262.11, before the unwanted material is removed from the laboratory.

(b) If an unwanted material is a hazardous waste, the eligible academic entity must:

(1) Write the words "hazardous waste" on the container label that is affixed or attached to the container, before the hazardous waste may be removed from the laboratory; and

(2) Write the appropriate hazardous waste code(s) on the label that is associated with the container (or on the label that is affixed or attached to the container, if that is preferred) before the hazardous waste is transported off-site.

(3) Count the hazardous waste toward the eligible academic entity's generator status, pursuant to § 261.5(c) and (d), in the calendar month that the hazardous waste determination was made.

(c) A trained professional must accompany all hazardous waste that is transferred from the laboratory(ies) to an on-site central accumulation area or on-site interim status or permitted treatment, storage or disposal facility.

(d) When hazardous waste is removed from the laboratory:

(1) Large quantity generators and small quantity generators must ensure it is taken directly from the laboratory(ies) to an on-site central accumulation area, or on-site interim status or permitted treatment, storage or disposal facility, or transported off-site.

(2) Conditionally exempt small quantity generators must ensure it is taken directly from the laboratory(ies) to any of the types of facilities listed in § 261.5(f)(3) for acute hazardous waste, or § 261.5(g)(3) for hazardous waste.

(e) An unwanted material that is a hazardous waste is subject to all applicable hazardous waste regulations when it is removed from the laboratory.

§ 262.211 Making the hazardous waste determination at an on-site central accumulation area.

If an eligible academic entity makes the hazardous waste determination, pursuant to § 262.11, for unwanted material at an on-site central accumulation area, it must comply with the following:

(a) A trained professional must accompany all unwanted material that is transferred from the laboratory(ies) to an on-site central accumulation area.

(b) All unwanted material removed from the laboratory(ies) must be taken directly from the laboratory(ies) to the on-site central accumulation area.

(c) The unwanted material becomes subject to the generator accumulation regulations of § 262.34(a) (or § 262.34(j) and (k) for Performance Track members) for large quantity generators or § 262.34(d)–(f) for small quantity generators as soon as it arrives in the central accumulation area, except for the "hazardous waste" labeling requirements of § 262.34(a)(3) (or § 262.34(j)(6) for Performance Track members).

(d) A trained professional must determine, pursuant to § 262.11, if the unwanted material is a hazardous waste within 4 calendar days of the unwanted materials' arrival at the on-site central accumulation area.

(e) If the unwanted material is a hazardous waste, the eligible academic entity must:

(1) Write the words "hazardous waste" on the container label that is affixed or attached to the container, within 4 calendar days of arriving at the on-site central accumulation area and before the hazardous waste may be removed from the on-site central accumulation area, and

(2) Write the appropriate hazardous waste code(s) on the container label that is associated with the container (or on the label that is affixed or attached to the container, if that is preferred) before the hazardous waste may be treated or disposed of on-site or transported off-site, and

(3) Count the hazardous waste toward the eligible academic entity's generator status, pursuant to § 261.5(c) and (d) in the calendar month that the hazardous waste determination was made, and

(4) Manage the hazardous waste according to all applicable hazardous waste regulations.

§ 262.212 Making the hazardous waste determination at an on-site interim status or permitted treatment, storage or disposal facility.

If an eligible academic entity makes the hazardous waste determination, pursuant to § 262.11, for unwanted material at an on-site interim status or permitted treatment, storage or disposal facility, it must comply with the following:

(a) A trained professional must accompany all unwanted material that is transferred from the laboratory(ies) to an on-site interim status or permitted treatment, storage or disposal facility.

(b) All unwanted material removed from the laboratory(ies) must be taken directly from the laboratory(ies) to the on-site interim status or permitted treatment, storage or disposal facility.

(c) The unwanted material becomes subject to the terms of the eligible academic entity's hazardous waste permit or interim status as soon as it arrives in the on-site treatment, storage or disposal facility.

(d) A trained professional must determine, pursuant to § 262.11, if the unwanted material is a hazardous waste within 4 calendar days of the unwanted materials' arrival at an on-site interim status or permitted treatment, storage or disposal facility.

(e) If the unwanted material is a hazardous waste, the eligible academic entity must:

(1) Write the words "hazardous waste" on the container label that is affixed or attached to the container (or on the label that is affixed or attached to the container, if that is preferred) within 4 calendar days of arriving at the on-site interim status or permitted treatment, storage or disposal facility and before the hazardous waste may be removed from the on-site interim status or permitted treatment, storage or disposal facility, and

(2) Write the appropriate hazardous waste code(s) on the container label that is associated with the container (or on the label that is affixed or attached to the container, if that is preferred) before the hazardous waste may be treated or disposed on-site or transported off-site, and

(3) Count the hazardous waste toward the eligible academic entity's generator status, pursuant to § 261.5(c) and (d) in the calendar month that the hazardous waste determination was made, and

(4) Manage the hazardous waste according to all applicable hazardous waste regulations.

§ 262.213 Laboratory clean-outs.

(a) One time per 12 month period for each laboratory, an eligible academic entity may opt to conduct a laboratory clean-out that is subject to all the applicable requirements of this subpart, except that:

(1) If the volume of unwanted material in the laboratory exceeds 55 gallons (or 1 quart of reactive acutely hazardous unwanted material), the eligible academic entity is not required to remove all unwanted materials from the laboratory within 10 calendar days

of exceeding 55 gallons (or 1 quart of reactive acutely hazardous unwanted material), as required by § 262.208. Instead, the eligible academic entity must remove all unwanted materials from the laboratory within 30 calendar days from the start of the laboratory clean-out; and

(2) For the purposes of on-site accumulation, an eligible academic entity is not required to count a hazardous waste that is an unused commercial chemical product (listed in 40 CFR part 261, subpart D or exhibiting one or more characteristics in 40 CFR part 261, subpart C) generated solely during the laboratory clean-out toward its hazardous waste generator status, pursuant to § 261.5(c) and (d). An unwanted material that is generated prior to the beginning of the laboratory clean-out and is still in the laboratory at the time the laboratory clean-out commences must be counted toward hazardous waste generator status, pursuant to § 261.5(c) and (d), if it is determined to be hazardous waste; and

(3) For the purposes of off-site management, an eligible academic entity must count all its hazardous waste, regardless of whether the hazardous waste was counted toward generator status under paragraph (a)(2) of this section, and if it generates more than 1 kg/month of acute hazardous waste or more than 100 kg/month of hazardous waste (i.e., the conditionally exempt small quantity generator limits of § 261.5), the hazardous waste is subject to all applicable hazardous waste regulations when it is transported off-site; and

(4) An eligible academic entity must document the activities of the laboratory clean-out. The documentation must, at a minimum, identify the laboratory being cleaned out, the date the laboratory clean-out begins and ends, and the volume of hazardous waste generated during the laboratory clean-out. The eligible academic entity must maintain the records for a period of three years from the date the clean-out ends; and

(b) For all other laboratory clean-outs conducted during the same 12-month period, an eligible academic entity is subject to all the applicable requirements of this subpart, including, but not limited to:

(1) The requirement to remove all unwanted materials from the laboratory within 10 calendar days of exceeding 55 gallons (or 1 quart of reactive acutely hazardous unwanted material), as required by § 262.208; and

(2) The requirement to count all hazardous waste, including unused hazardous waste, generated during the laboratory clean-out toward its hazardous waste generator status, pursuant to § 261.5(c) and (d).

§ 262.214 Laboratory management plan.

An eligible academic entity must develop and retain a written Laboratory Management Plan, or revise an existing written plan. The Laboratory Management Plan is a site-specific document that describes how the eligible academic entity will manage unwanted materials in compliance with this subpart. An eligible academic entity may write one Laboratory Management Plan for all the laboratories owned by the eligible academic entity that have opted into this subpart, even if the laboratories are located at sites with different EPA Identification Numbers. The Laboratory Management Plan must contain two parts with a total of nine elements identified in paragraphs (a) and (b) of this section. In Part I of its Laboratory Management Plan, an eligible academic entity must describe its procedures for each of the elements listed in paragraph (a) of this section. An eligible academic entity must implement and comply with the specific provisions that it develops to address the elements in Part I of the Laboratory Management Plan. In Part II of its Laboratory Management Plan, an eligible academic entity must describe its best management practices for each of the elements listed in paragraph (b) of this section. The specific actions taken by an eligible academic entity to implement each element in Part II of its Laboratory Management Plan may vary from the procedures described in the eligible academic entity's Laboratory Management Plan, without constituting a violation of this subpart. An eligible academic entity may include additional elements and best management practices in Part II of its Laboratory Management Plan if it chooses.

(a) The eligible academic entity must implement and comply with the specific provisions of Part I of its Laboratory Management Plan. In Part I of its Laboratory Management Plan, an eligible academic entity must:

(1) Describe procedures for container labeling in accordance with § 262.206(a), including:

(i) Identifying whether the eligible academic entity will use the term "unwanted material" on the containers in the laboratory. If not, identify an equally effective term that will be used in lieu of "unwanted material" and consistently by the eligible academic entity. The equally effective term, if used, has the same meaning and is subject to the same requirements as "unwanted material."

(ii) Identifying the manner in which information that is "associated with the container" will be imparted.

(2) Identify whether the eligible academic entity will comply with § 262.208(a)(1) or (a)(2) for regularly scheduled removals of unwanted material from the laboratory.

(b) In Part II of its Laboratory Management Plan, an eligible academic entity must:

(1) Describe its intended best practices for container labeling and management, including how the eligible academic entity will manage containers used for in-line collection of unwanted materials, such as with high performance liquid chromatographs and other laboratory equipment (see the required standards at § 262.206).

(2) Describe its intended best practices for providing training for laboratory workers and students commensurate with their duties (see the required standards at § 262.207(a)).

(3) Describe its intended best practices for providing training to ensure safe on-site transfers of unwanted material and hazardous waste by trained professionals (see the required standards at § 262.207(d)(1)).

(4) Describe its intended best practices for removing unwanted material from the laboratory, including:

(i) For regularly scheduled removals—Develop a regular schedule for identifying and removing unwanted materials from its laboratories (see the required standards at § 262.208(a)(1) and (a)(2)).

(ii) For removals when maximum volumes are exceeded:

(A) Describe its intended best practices for removing unwanted materials from the laboratory within 10 calendar days when unwanted materials have exceeded their maximum volumes (see the required standards at § 262.208(d)).

(B) Describe its intended best practices for communicating that unwanted materials have exceeded their maximum volumes.

(5) Describe its intended best practices for making hazardous waste determinations, including specifying the duties of the individuals involved in the process (see the required standards at § 262.11 and §§ 262.209 through 262.212).

(6) Describe its intended best practices for laboratory clean-outs, if the eligible academic entity plans to use the incentives for laboratory clean-outs provided in § 262.213, including:

(i) Procedures for conducting laboratory clean-outs (see the required standards at § 262.213(a)(1) through (3)); and

(ii) Procedures for documenting laboratory clean-outs (see the required standards at § 262.213(a)(4)).

(7) Describe its intended best practices for emergency prevention, including:

(i) Procedures for emergency prevention, notification, and response, appropriate to the hazards in the laboratory; and

(ii) A list of chemicals that the eligible academic entity has, or is likely to have, that become more dangerous when they exceed their expiration date and/or as they degrade; and

(iii) Procedures to safely dispose of chemicals that become more dangerous when they exceed their expiration date and/or as they degrade; and

(iv) Procedures for the timely characterization of unknown chemicals.

(c) An eligible academic entity must make its Laboratory Management Plan available to laboratory workers, students, or any others at the eligible academic entity who request it.

(d) An eligible academic entity must review and revise its Laboratory Management Plan, as needed.

§ 262.215 Unwanted material that is not solid or hazardous waste.

(a) If an unwanted material does not meet the definition of solid waste in § 261.2, it is no longer subject to this subpart or to the RCRA hazardous waste regulations.

(b) If an unwanted material does not meet the definition of hazardous waste in § 261.3, it is no longer subject to this subpart or to the RCRA hazardous waste regulations, but must be managed in compliance with any other applicable regulations and/or conditions.

§ 262.216 Non-laboratory hazardous waste generated at an eligible academic entity.

An eligible academic entity that generates hazardous waste outside of a laboratory is not eligible to manage that hazardous waste under this subpart; and

(a) Remains subject to the generator requirements of §§ 262.11 and 262.34(c) for large quantity generators and small quantity generators (if the hazardous waste is managed in a satellite accumulation area), and all other applicable generator requirements of 40 CFR part 262, with respect to that hazardous waste; or

(b) Remains subject to the conditional exemption of § 261.5(b) for conditionally exempt small quantity generators, with respect to that hazardous waste.

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Part IV

Environmental Protection Agency

40 CFR Part 261
Expansion of RCRA Comparable Fuel Exclusion; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 261

[EPA–HQ–RCRA–2005–0017; FRL–8753–4]

RIN 2050–AG24

Expansion of RCRA Comparable Fuel Exclusion

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This final action adds a new exclusion to the rules implementing subtitle C of the Resource Conservation and Recovery Act (RCRA). The rule already provides exclusions for comparable fuels and synthesis gas. These fuels are energy-rich hazardous secondary materials which would otherwise be hazardous wastes, but which have the same hazardous constituent concentrations as fossil fuels that would be burned in their place. EPA is establishing a new category of excluded fuel that has its own set of conditions, some of which overlap with the comparable fuels exclusion. These newly excluded hazardous secondary materials are called "emission-comparable fuel" (ECF). ECF is a hazardous secondary material that, when generated, is handled in such a way that it is not discarded in any phase of management, but rather is handled as a valuable commodity. ECF meets all of the hazardous constituent specifications (over 160) for comparable fuel, with the exception of those for oxygenates and hydrocarbons (constituents which contribute energy value to the fuel). The rule specifies conditions on burning ECF which assure that emissions from industrial boilers burning ECF are comparable to emissions from industrial boilers burning fuel oil. The ECF exclusion also includes conditions for tanks and containers storing ECF to assure that discard does not occur.

DATES: This final rule is effective January 20, 2009.

ADDRESSES: The official public docket is identified by Docket ID No. EPA–HQ–RCRA–2005–0017. All documents in the docket are listed in the *http://www.regulations.gov* index. Although listed in the index, some information is not publicly available, *e.g.*, Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in *http://www.regulations.gov* or in hard copy at the RCRA Docket, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the RCRA Docket is (202) 566–0270.

FOR FURTHER INFORMATION CONTACT: Mary Jackson, Hazardous Waste Minimization and Management Division, Office of Solid Waste, Mailcode: 5302P, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460; telephone number: (703) 308–8453; fax number: (703) 308–8433; e-mail address: *jackson.mary@epa.gov*.

SUPPLEMENTARY INFORMATION:

General Information

A. Does This Action Apply to Me?

Categories and entities potentially affected by this action include:

Category	NAICS code	SIC code	Examples of potentially regulated entities
Any industry that generates or combusts hazardous waste as defined in the final rule.	562	49	Waste Management and Remediation Services.
	327	32	Non-mettalic Mineral Products Manufacturing.
	325	28	Chemical Manufacturing.
	324	29	Petroleum and Coal Products Manufacturing.
	331	33	Primary Metals Manufacturing.
	333	38	Machinery Manufacturing.
	326	306	Plastic and Rubber Products Manufacturing.
	488, 561	49	Administration and Support Services.
	421	50	Scrap and waste materials.
	422	51	Wholesale Trade, Non-durable Goods, N.E.C.
	512, 541, 812	73	Business Services, N.E.C.
	512, 514, 541, 711	89	Services, N.E.C.
	924	95	Air, Water and Solid Waste Management.
	336	37	Transportation Equipment Manufacturing.
	928	97	National Security.
	334	35	Computer and Electronic Products Manufacturing.
	339	38	Miscellaneous Manufacturing.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be impacted by this action. This table lists examples of the types of entities EPA is aware could potentially be regulated by this action. Other types of entities not listed could also be affected. To determine whether your facility, company, business, organization, etc., is affected by this action, you should examine the applicability criteria in this rule. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

B. Docket Copying Costs

You may copy a maximum of 100 pages from any regulatory docket at no charge. Additional copies are 15 cents/page.

C. How Do I Obtain a Copy of This Document and Other Related Information?

In addition to being available in the docket, an electronic copy of this rule will also be available on the Worldwide Web (WWW). Following the Administrator's signature, a copy of this document will be posted on the WWW at *http://www.epa.gov/hwcmact*. This Web site also provides other information related to the NESHAP (National Emission Standards for Hazardous Air Pollutants) for hazardous waste combustors.

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Part One: Background

I. Statutory Authority

These regulations are promulgated under the authority of sections 1004 and 2002 of the Solid Waste Disposal Act of 1970, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), 42 U.S.C. 6903 and 6912.

II. Background

A. What Is the Intent of the Rule?

Section 261.38 states that hazardous secondary materials (*i.e.*, spent materials, sludges and byproducts) which have fuel value and whose hazardous constituent levels are comparable to those found in fuel oil that could be burned in their place are not solid wastes, and hence not hazardous wastes. These materials are called comparable fuels. This rule adds an additional group of materials to the exclusions in section 261.38. These materials are hazardous secondary materials that, as generated, are not discarded, but are treated as valuable commodities through all phases of management through operation of conditions on their storage and burning, and based on their substantial physical identity with fuel oil. These hazardous secondary materials must meet all of the hazardous constituent specifications for comparable fuel except those for oxygenates and hydrocarbons, constituents with high energy content [1] that contribute to the energy value of these materials. These excluded fuels are termed "emission-comparable fuel" ("ECF") because the emissions from an industrial boiler burning these hazardous secondary materials are comparable to the emissions from an industrial boiler burning fuel oil, the fossil fuel for which ECF would often substitute.[2] In other words, ECF and fuel oil are comparable from an emissions standpoint, although the concentrations of oxygenates and hydrocarbons may be higher in the ECF than in fuel oil.

EPA wishes to make clear the basic fact pattern regarding the generation and management of ECF in order to establish the fact situation to which the rule applies. The rule applies to hazardous secondary materials which are not discarded in the first instance. ECF must meet the specifications established for hazardous constituents in comparable fuels, except with respect to hydrocarbons and oxygenates—constituents which provide substantial fuel value. These emission-comparable fuels must meet the specifications for those hazardous constituents, as well as the specifications for minimum heating value and maximum viscosity, as generated. Hazardous secondary materials may not undergo processing to destroy or otherwise remove the hazardous constituents to meet the specifications, or to meet the heating value or viscosity specifications (*i.e.*, such materials, by definition, cannot be ECF). Based on limited current practice for those materials currently classified as comparable fuels under existing § 261.38, EPA expects most ECF to be used on-site.[3] ECF would be used and stored under largely the same conditions as would the virgin fuel—fuel oil—which would often be displaced by ECF.

Under these circumstances, the rule excludes ECF from being a solid waste, *i.e.*, determines that ECF is not discarded, from its point of generation. Throughout its management cycle, ECF is subject to conditions which provide objective assurance that discard has not occurred. These include conditions on tank and container storage, drawn largely from conditions applicable to containers and tanks storing fuel oil and organic product and by-products, which conditions assure containment, spill prevention, and minimization of fugitive air emissions. Transport conditions are the same as for all other hazardous materials, including product fuels. Conditions on burning (again drawn largely from standard practices for assuring that industrial boilers operate efficiently) assure that emissions of hazardous constituents which may be present in different concentrations than fuel oil would be no different than the emissions if the same boiler burned fuel oil. The combination of ECF's substantial physical identity with fuel oil, and identical emission profiles with fuel oil, assures that ECF is not discarded when burned. For all of these reasons, EPA is taking the position that ECF may reasonably be classified as a non-discarded fuel product.

Based on the quantity of hazardous secondary materials eligible for this exclusion, the total quantity of hazardous secondary materials excluded from the RCRA hazardous waste regulations is expected to increase substantially. Specifically, we estimate that approximately 13,000 tons per year of hazardous secondary materials are currently excluded under the existing comparable fuel exclusion, while we

[1] The hydrocarbons and oxygenates listed in Table 1 to § 261.38 have a heating value in the range generally of 10,000 Btu/lb to 18,000 Btu/lb. See USEPA, "Final Technical Support Document for the Expansion of the Comparable Fuels Exclusion," November 2008, Table 2–1. Fuel oil typically has a heating value of approximately 19,300 Btu/lb.

[2] Fuel oil is a common, but not predominant, fuel for industrial boilers.

[3] All comparable fuel currently excluded under § 261.38 is burned on-site (*i.e.*, at the site of generation), according to a survey conducted by the American Chemistry Council. See EPA Docket No. EPA–HQ–RCRA–2005–0017–0003. In addition, we estimate that 19 of the 34 burners projected to use ECF will burn on-site ECF which they generate themselves. See discussion in Part Six of this preamble.

project that up to an additional 118,500 tons per year may be excluded under the ECF exclusion.

These additional hazardous secondary materials can now be used as fuel without imposing regulatory costs on generators, primarily the manufacturing sector. However, the expanded comparable fuel exclusion is not likely to increase the amount of hazardous secondary materials used as fuel because these high Btu materials, even though not currently excluded from RCRA, are currently used in industrial furnaces and incinerators for their fuel value. Put another way, it is likely that the same amount of energy will be recovered from these hazardous secondary materials whether they are classified as wastes or non-wastes, and the same amount of fossil fuel would be displaced. Nonetheless, continuing to regulate these hazardous secondary materials as hazardous wastes would: (1) Impose costs on a material which can legitimately be classified as a non-discarded product, rather than as a waste; and (2) preclude the opportunity to market the materials as boiler fuels, given that use is currently constrained to a relatively small universe of RCRA-permitted burners.

B. Who Will Be Affected by This Rule?

Entities that generate, burn, and store ECF are potentially affected by this rule. The basic structure of the exclusion is that ECF is not a solid (and hazardous) waste as generated, and hence is not subject to subtitle C regulation. Thus, entities managing hazardous secondary materials classified as hazardous waste fuels under current rules can manage these fuels without being subject to full subtitle C regulation so long as they satisfy the conditions on ECF set out in this rule. Burners, which are limited to certain industrial boilers (including utility boilers) can burn ECF provided the boilers meet prescribed design and operating conditions, as discussed below in Part II, Section III.B.[4] These entities will benefit from lower operating costs because of lower (or eliminated) waste management fees and because these hazardous secondary materials will substitute for fuels which would otherwise be purchased.

Commercial hazardous waste combustors that are currently managing hazardous waste fuels that qualify as ECF, on the other hand, might find themselves unable to continue to charge hazardous waste management fees for the excluded hazardous secondary materials. Consequently, commercial hazardous waste combustors might lose the waste management revenues for burning ECF, and, if they choose to no longer burn the material, may need to meet their heat input requirements by using other waste fuels or fossil fuels.

C. What Is the Relationship Between This Rule and the Existing Exclusion for Comparable Fuel?

On June 19, 1998 (63 FR 33782 and § 261.38), EPA promulgated standards to exclude from the definition of solid waste certain hazardous secondary material fuels that meet specification levels for hazardous constituents and physical properties that affect burning which are comparable to the same levels in fossil fuels (typically fuel oil). EPA's goal was to ensure that these excluded fuels, which are so similar in composition to commercial fuels, are properly classified as non-discarded products, not as wastes.

During the ten years that the comparable fuel exclusion has been part of the hazardous waste regulations, several stakeholders have pointed out that there are many hazardous secondary materials currently classified as hazardous wastes which have fuel value, and which have substantially the same composition as fossil fuels, but which do not satisfy the terms of the exclusion. Independently, in 2003, EPA began examining the effectiveness of the current comparable fuel program as part of an effort to promote the energy conservation component of the Resource Conservation Challenge[5] to determine whether other hazardous secondary materials currently classified as hazardous wastes could be appropriately excluded as comparable fuel.[6]

As part of this effort, EPA contacted the American Chemistry Council (ACC) in early 2003 to determine how much waste is currently excluded as comparable fuel and whether there were additional quantities of other high Btu hazardous secondary materials that could potentially be considered comparable fuel. As a result of ensuing discussions, we proposed in June 2007 to expand the exclusion for comparable fuel to establish a new category of excluded fuel—ECF. 72 FR 33284 (June 15, 2007). In this notice, we are responding to public comments on the proposed rule, summarizing changes to the proposed rule, and promulgating a final rule.

Part Two: Summary of the Final Rule

I. What Is ECF?

ECF is a hazardous secondary material which is excluded from the RCRA hazardous waste regulations if it meets prescribed specifications and conditions respecting its storage and burning. These conditions assure that ECF is not "part of the waste disposal problem." *American Mining Congress* v. *EPA*, 907 F. 2d 1179, 1186 (DC Cir. 1990) citing *American Mining Congress* v. *EPA*, 824 F. 2d 1177, 1186 (DC Cir. 1987). The ECF fuel specifications (§ 261.38(a)(2)) are the same as those that are applicable to comparable fuel, except the specifications in Table 1 to § 261.38 for hydrocarbons and for oxygenates do not apply, and the minimum heating value specification is 8,000 Btu/lb. The exclusion applies from the point of generation of the ECF.

ECF must meet the specifications as generated. Hazardous secondary materials may not be treated by blending or other means to meet the specifications, including the minimum heating value and maximum viscosity specifications. ECF product may, however, be commingled with other fuels to facilitate handling and storage, provided that the ECF continues to meet the specifications.[7]

II. What Are the Storage Conditions for ECF?

ECF may be stored in tanks and containers under conditions that prevent releases of hazardous secondary materials to the environment. The storage conditions are adopted from a collection of requirements for storage of fuel oil and other materials: discharge prevention requirements adopted from the Spill Prevention, Control, and Countermeasure (SPCC) requirements for oil storage facilities; containment and emergency procedure requirements adopted from the hazardous waste storage requirements, and fugitive air emission controls adopted from several NESHAP (National Emission Standards for Hazardous Air Pollutants) for organic products, by-products, and feedstocks. See § 261.38(c)(1). The final rule also provides alternative storage

[4] Under the final rule, ECF can also be burned in hazardous waste combustors operating under a RCRA permit. See discussion in Part Two, Section III.A of the preamble.

[5] See *http://www.epa.gov/epaoswer/osw/conserve/strat-plan/strat-plan.htm#rccplan.*

[6] As noted above, the same amount of energy is recovered from excluded fuels whether they are burned in units subject to subtitle C rules, or in industrial boilers.

[7] Please note that the proposal included a conforming amendment adding a reference to ECF to § 261.38(a)(5), a provision addressing treatment of hazardous constituents to meet the hazardous constituent specifications. 72 FR at 33324. EPA has no information that this practice occurs, did not estimate any costs for the practice in assessing compliance costs for the proposed or final rule, and received no comment on the issue. EPA is consequently not finalizing the proposal to amend this provision.

conditions, however, that are adopted solely from the controls for hazardous waste storage facilities. See § 261.38(e). We provide these alternative storage conditions for the convenience of owners and operators because: (1) They provide equivalent protection of human health and the environment; (2) they are less complex than the suite of conditions that are adopted from requirements for fossil fuels and other products; and (3) facilities that are currently storing hazardous waste that becomes ECF under the exclusion are already complying with these conditions.

The storage conditions adopted from the collection of SPCC provisions, hazardous waste provisions, and NESHAP provisions are discussed below in Section II.A. The alternative storage conditions adopted solely from the hazardous waste storage requirements are discussed below in Section II.B.

A. What Are the Conditions for Storage?

1. Discharge Prevention Conditions That Are Adopted From SPCC Requirements

We are adopting particular SPCC provisions under 40 CFR Part 112 that pertain to discharge prevention for oils managed at onshore facilities: §§ 112.2, 112.3(d), 112.3(e), 112.5(a), 112.5(b), 112.7, and 112.8. See § 261.38(c)(1)(iii). These provisions require compliance with the SPCC Plan requirements for discharge prevention, other than those pertaining to containment. See § 261.38(c)(1)(iii).

2. Containment Conditions That Are Adopted From Hazardous Waste Storage Requirements

We are adopting the hazardous waste provisions for containment for storage units: (1) For tanks, § 264.193 (b) and (c), § 264.193(d)(1) through (d)(3), and § 264.193 (e) and (f); and (2) for containers, § 264.175(b).

For tanks, the adopted provisions are those for engineered secondary containment and for leak detection. Engineered secondary containment means the use of an external liner, vault, or double-walled tank. See § 261.38(c)(1)(iv)(A).

For containers, the adopted provisions are those for a containment system comprised of a base underlying the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed. The containment system must be designed to contain 10% of the volume of containers or the volume of the largest container, whichever is greater. See § 261.38(c)(1)(iv)(B).

3. Emergency Procedure Conditions That Are Adopted From Hazardous Waste Storage Requirements

We are adopting provisions from hazardous waste storage requirements for preparedness and prevention, emergency procedures, and response to leaks or spills. See § 261.38(c)(v).

The following conditions ensure preparedness and prevention: (1) You must provide the emergency equipment required by adopted § 264.32(a) though (d); (2) you must test and maintain equipment related to emergency procedures; (3) you must ensure access to communications or alarm systems by facility personnel; and (4) you must make arrangements with local authorities as required by adopted § 264.37(a).

The following conditions establish emergency procedures: (1) An emergency coordinator must be available at all times; and (2) the emergency coordinator must manage imminent or actual emergency situations according to the provisions of § 261.38(c)(1)(v)(B)(*2*).

To address a response to leaks or spills from tank systems, and the disposition of leaking or unfit-for-use tank systems, the provisions of § 264.196 are adopted, except for the closure provisions of § 264.196(e)(1) and (4).

4. Fugitive Air Emissions Conditions That Are Adopted From the NESHAP for Organic Liquid Distribution, the NESHAP for Tanks, the NESHAP for Containers, and the NESHAP for Equipment Leaks

All ECF tanks systems, containers with a capacity greater than 0.1 cubic meters (26 gallons), and equipment that contains or contacts ECF (*e.g.*, valves and pumps) are subject to conditions to control fugitive air emissions. The conditions are adopted from the organic liquid distribution (OLD) NESHAP, the NESHAP for containers (Level 1 or Level 2 controls), the NESHAP for tanks (Level 1 or Level 2 controls),[8] and the NESHAP for equipment leaks.

a. *Tanks.* Tanks containing ECF that are currently subject to the OLD requirements under § 63.2346 (Part 63, Subpart EEEE) are not subject to any additional conditions to control fugitive emissions (under § 261.38(c)(vi)(B) and (C), and (c)(vii)), with one exception. If your tank is subject to Items 1 through 5 in Table 2 to Subpart EEEE, rather than Item 6 because the annual average vapor pressure of regulated organic HAP[9] is less than 11.1 psia, you must consider the annual average vapor pressure of the RCRA oxygenates listed under § 261.38(c)(1)(vi)(B)(*3*) to determine if your tank must also satisfy the more stringent controls (drawn from the other OLD controls) we are adopting for ECF. See § 261.38(c)(vi)(A)(*2*).

Tanks that are not currently subject to the OLD requirements under § 63.2346, and that store ECF that meets the expanded definition of organic liquid which we are adopting for ECF under § 261.38(c)(vi)(B)(*4*),[10] are subject (as a condition) to emission limits adopted from the OLD NESHAP as a function of the tank design capacity and the annual average vapor pressure of the RCRA oxygenates and the organic HAP in the ECF. See § 261.38(c)(1)(vi)(C)(*5*).

Finally, ECF tanks that are not subject to the adopted OLD requirements (*i.e.*, tanks storing ECF that meets the adopted definition of organic liquid under § 261.38(c)(vi)(B)(*4*), but for which OLD controls are not adopted under § 63.2346, and tanks storing ECF that does not meet the adopted and expanded definition of organic liquid) are subject to the following conditions:

- For tanks that meet the tank capacity and vapor pressure criteria for hazardous waste tanks under § 264.1084(b)(1) for Level 1 control:
  - ○ The NESHAP provisions for Level 1 control under Subpart OO, Part 63, §§ 63.901 through 63.907; or
  - ○ The NESHAP provisions for organic liquid distribution under Subpart EEEE, Part 63 under Item 1.a.i or 1.a.ii in Table 2 to Subpart EEEE, which require 95% emissions reduction via venting to a control device under provisions of Subpart SS, Part 63, or Level 2 tank emissions control under Subpart WW, Part 63, or routing emissions to a fuel gas system or back to a process under § 63.984 of Subpart SS, Part 63, or vapor balancing emissions to the transport vehicle from which the storage tank is filled under § 63.2346(a)(4); or
  - ○ Hazardous waste tank controls under Subpart CC, Part 264, under § 264.1084(d)(3), (d)(4), or (d)(5) for use of venting to a control device, or a pressure tank, or a tank located inside an enclosure that is vented through a

[8] As discussed below, we also provide as alternative tank controls three control alternatives for hazardous waste tanks under Subpart CC, Part 63, that are not included under the NESHAP.

[9] Organic HAP regulated by Subpart EEEE, Part 63 are listed in Table 1 to Subpart EEEE.

[10] An organic liquid for purposes of § 261.38(c)(vi) means emission comparable fuel that: (1) Contains 5 percent by weight or greater of the RCRA oxygenates as well as organic HAP listed in Table 1 to Part 63, Subpart EEEE; and (2) has an annual average true vapor pressure of 0.7 kilopascals (0.1 psia) or greater.

closed-vent system to an enclosed combustion control device, and the associated provisions under §§ 63.1081 (definitions), 264.1083(c) (determination of vapor pressure), 264.1084(j) (transfer to a tank), 264.1087 (closed-vent systems and control devices), and 264.89(b) (recordkeeping).

• For tanks that do not meet the tank capacity and vapor pressure criteria for hazardous waste tanks under § 264.1084(b)(1) and are, thus, subject to Level 2 control, the air emission controls are the same as for Level 1 control, except that the Level 1 controls under Subpart OO, Part 63, are not applicable.

The air emission conditions for ECF tanks are summarized in the table below:

Tank capacity (gallons)	Vapor pressure (psia)	Adopted old NESHAP conditions (subpart EEEE, part 63) for tanks storing ECF that meets the definition of organic liquid [1]		Adopted conditions for tanks not subject to adopted old controls
		Existing sources	Reconstructed or new sources	
<5,000	<11.1			A or C
	>=11.1			A or D
>=5,000 to <10,000	<4.0			A or C
	>=4.0 to <11.1	A	A	A or C
	>11.1	B	B	A or D
>=10,000 to <20,000	<=0.1			A or C
	>=0.1 to >4.0		A	A or C
	>=4.0 to >11.1	A	A	A or C
	>=11.1	B	B	A or D
>=20,000 to <40,000	<=0.1			A or C
	>=0.1 to >4.0		A	A or C
	>=4.0 to >11.1	A	A	A or D
	>=11.1	B	B	A or D
>=40,000 to <50,000	<=0.1			A or C
	>=0.1 to >0.75		A	A or C
	>=0.75 to >4.0		A	A or D
	>=4.0 to >11.1	A	A	A or D
	>=11.1	B	B	A or D
>=50,000	<=0.1			A or C
	>=0.1 to >0.75	A	A	A or C
	>=0.75 to >11.1	A	A	A or D
	>=11.1	B	B	A or D

[1] Organic liquid means emission comparable fuel that: (1) Contains 5 percent by weight or greater of the RCRA oxygenates as well as organic HAP listed in Table 1 to Part 63, Subpart EEEE; and (2) has an annual average true vapor pressure of 0.7 kilopascals (0.1 psia) or greater.

Notes:

A: 95% emissions reductions via venting to a control device under Subpart SS, Part 63; or Level 2 tank control under Subpart WW, Part 63; or route emissions to a fuel gas system or back to a process under 63.984 of Subpart SS, Part 63; or vapor balancing emissions to the transport vehicle from which the storage tank is filled under 63.2346(a)(4) of Subpart EEEE, Part 63.

B: 95% emissions reductions via venting to a control device under Subpart SS, Part 63; or route emissions to a fuel gas system or back to a process under 63.984 of Subpart SS, Part 63; or vapor balancing emissions to the transport vehicle from which the storage tank is filled under 63.2346(a)(4) of Subpart EEEE, Part 63.

C: Level 1 control under Subpart OO, Part 63, or venting to a control device under 264.1086(d)(3), or a pressure tank under 264.1084(d)(4) of; or tank located inside an enclosure that is vented to an enclosed combustion control device under 264.1084(d)(5).

D: Venting to a control device under 264.1086(d)(3); pressure tank under 264.1084(d)(4); or tank located inside an enclosure that is vented to an enclosed combustion control device under 264.1084(d)(5).

b. *Containers.* Containers that store ECF are subject to the adopted OLD provisions (see § 261.38(c)(1)(vi)(C)(*3*)) in order to be excluded. However, these provisions establish standards for containers only in a specific situation: Containers with a capacity greater than 55 gallons that are being loaded at a transfer rack at a new facility with ECF that meets the definition of organic liquid and where the annual volume of ECF is 800,000 gallons or more. See Items 9 and 10 in Table 2 to adopted Subpart EEEE.

To ensure that air emissions are controlled for other ECF containers as they are for containers storing liquids containing volatile organics (assuring that ECF is handled as are other commodities rather than being discarded), we adopt the national emission controls for containers under Subpart PP, Part 63. Subpart PP prescribes three levels of air emission controls: Level 1, Level 2, and Level 3. To determine which level of control would apply to ECF containers, we adopt the applicability criteria for hazardous waste containers under § 264.1086(b)(1). See § 261.38(c)(vii)(B)(1) and (c)(vii)(B)(2). Those applicability criteria specify whether Level 1 or Level 2 national emission controls for containers apply, considering the size of the container and whether it is "in light material service." [11] Under these adopted controls as conditions for the exclusion, an ECF container having a design capacity greater than 0.1 cubic meters (26 gallons) satisfies the conditions if it: (1) Meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation; and (2) is kept closed unless ECF is being added or removed from the container.

c. *Equipment Leaks.* For tanks and containers that are conditioned on meeting the adopted OLD requirements, air emissions from leaks from equipment that contains or contacts ECF at a storage unit are controlled under the adopted OLD requirements

[11] An ECF container is in light material service if: (1) The vapor pressure of one or more of the organic components in the ECF is greater than 0.3 kilopascals (kPa) at 20 °C; and (2) the total concentration of the pure organic components having a vapor pressure greater than 0.3 kilopascals (kPa) at 20 °C is equal to or greater than 20 percent by weight. See § 264.1031.

(§ 63.2346(c)). For tanks and containers that are not conditioned on meeting the adopted OLD requirements, equipment leaks are subject to adopted NESHAP controls for equipment leaks, as discussed below. See § 261.38(c)(1)(vi)(C)(*3*), (c)(1)(vii)(A)(*3*), and (c)(1)(vii)(B)(*3*).

The OLD NESHAP subjects storage units to the following Part 63 NESHAP for equipment leaks if a facility has a tank or container subject to air emission control under Table 2 to Subpart EEEE: Subpart TT (Level 1 control), or Subpart UU (Level 2 control), or Subpart H.

For equipment leaks that are not conditioned on meeting OLD, we adopt as conditions the same suite of NESHAP controls that are required under OLD, and apply those controls to all equipment that stores or contacts ECF at a storage unit. The adopted NESHAP controls are: (1) Subpart TT, Part 63, (Level 1 control), except for § 63.1000; or (2) Subpart UU (Level 2 control), except for § 63.1019; or (3) Subpart H, except for §§ 63.160, 63.162(b) and (e), and 63.183.

B. What Are the Alternative Storage Conditions?

The rule establishes alternative storage conditions that we adopt from the hazardous waste storage standards under 40 CFR Part 264. See § 261.38(e). You may comply with these alternative conditions in lieu of the conditions just enumerated in Section II.A above. If you choose to meet these alternative conditions, you must substitute the term "emission-comparable fuel" for each occurrence of the term "hazardous waste" or "waste."

The alternative conditions for your ECF tank or container storage unit provide controls for: (1) Security; (2) inspections; (3) personnel training; (4) handling ignitable, reactive, or incompatible materials; (5) preparedness and prevention; (6) contingency plan and emergency procedures; and (7) air emission controls for equipment leaks.

Specifically, if you store ECF in a container, to maintain the exclusion, you must comply with conditions governing the use and management of those containers. Those conditions address: (1) The condition of the containers; (2) compatibility of the ECF with the containers; (3) management of the containers; (4) inspections; (5) containment; (6) special requirements for ignitable or reactive ECF; and (7) air emission controls.

On the other hand, if you store ECF in a tank, to maintain the ECF exclusion, you must comply with conditions that address: (1) Containment and detection of releases; (2) general operating requirements; (3) inspections; (4) response to leaks or spills and disposition of leaking or unfit-for-use tank systems; (5) ignitable or reactive materials; (6) incompatible materials; and (7) air emission controls.

C. What Are the Other Storage Conditions?

1. Underground Storage of ECF Is Prohibited

The final rule prohibits storage of ECF in underground tanks (*i.e.* a hazardous secondary material stored in an underground tank by definition cannot be ECF): A tank the volume of which (including the volume of underground pipes connecting thereto) is 10 percent or more beneath the surface of the ground.[12] In the preamble to the proposed rule, we requested comment on whether generators or burners would be likely to store ECF in underground tanks. We did not receive any information to indicate that ECF would be stored in underground tanks. Given the additional complexity to the rule that would result from the need to adopt air emission controls, as well as preparedness and prevention and emergency procedure provisions for underground storage tanks, we conclude that allowing the use of underground storage tanks for ECF would unnecessarily complicate the rule for very little benefit, or (more likely) no benefit at all.

2. What Are the Conditions for Closure of RCRA Storage Units That Become ECF Storage Units?

The rule waives the RCRA closure requirements in 40 CFR Parts 264 and 265 for those interim status and permitted storage units, and generator accumulation units exempt from the permitting requirements under § 262.34 of this chapter, that store ECF, provided that: (1) The storage unit has been used to store only the hazardous waste that is subsequently excluded as ECF under the conditions of § 261.38; and (2) the storage unit will be used to store only that ECF.

3. What Are the Conditions for Closure of Storage Units?

Like any other product storage unit which goes out of service, tank systems and container storage units would not be required to undergo closure under the RCRA hazardous waste regulations (unless liquids or accumulated solids were not cleaned from the tank system or container within 90 days of cessation of operation as an ECF storage unit), when the unit ceases operation as a product storage unit. See § 261.4(c). However, if an ECF storage unit ceases to be operated to store ECF product, but has not been cleaned by removing all liquids and accumulated solids within 90 days of cessation of ECF storage operations, the tank system or container would become subject to the RCRA Subtitle C regulations.[13] [14] See § 261.38(b)(13).

Discarded liquids and accumulated solids removed from a tank system or container that ceases to be operated for storage of ECF product are solid wastes. This material is hazardous waste if it exhibits a characteristic of hazardous waste or if the ECF no longer meets a condition of the exclusion and is otherwise listed as a hazardous waste. Similarly, liquids and accumulated solids removed from a tank system or container are solid wastes (and if identified or listed, hazardous wastes) if at any time they do not meet the ECF specifications and other conditions of the exclusion.[15]

4. What Are the Conditions for Management of Incompatible ECF and Other Materials?

ECF generators and burners must take precautions to prevent the mixing of ECF and other materials which could result in reactions which could: (1) Generate extreme heat or pressure, fire or explosions, or violent reactions; (2) produce uncontrolled hazardous mists, fumes, dusts, or gases; (3) produce uncontrolled flammable fumes or gases; or (4) damage the structural integrity of the storage unit or facility. See § 261.38(c)(1)(viii). ECF generators must document how they will take precautions to avoid these situations. This documentation must be kept on-site for three years.

III. What Are the Conditions for ECF Burners?

ECF must be burned in particular combustors under prescribed conditions to be eligible for the exclusion.

[12] See § 280.12.

[13] This provision also applies to currently excluded comparable fuel.

[14] If the tank is used to actively accumulate hazardous waste after being taken out of service as an ECF (or comparable fuel) product tank, the tank may be eligible for the provisions under § 262.34 that waive the permit requirements for generator tanks that accumulate hazardous waste for not more than 90 days.

[15] This assumes that all hazardous secondary materials claimed to be ECF and stored in a tank or container properly met the conditions for the exclusion. If not, however, any liquid or accumulated solids removed from the tank or container, at any time, would be hazardous waste, and therefore subject to regulation as hazardous waste from the point of generation.

A. What Types of Combustors May Burn ECF?

To be excluded, ECF may be burned in an industrial or utility boiler that is a watertube type of steam boiler that does not feed fuel using a stoker or stoker-type mechanism. To be considered a boiler, a combustor must meet the definition of boiler under § 260.10. To be considered an industrial boiler, the boiler must be located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes. To be considered a utility boiler, the boiler must be used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale. See § 261.38(b)(3)(i)(B).

ECF may also continue to be burned in any hazardous waste combustor operating under a RCRA permit issued under Part 270, provided the ECF is burned under the same operating requirements that apply to hazardous waste burned by the combustor (i.e., ECF must be burned as though it were hazardous waste). Those hazardous waste operating requirements apply in lieu of the conditions for burning ECF under § 261.38(c)(2), except that the ECF constituent feedrate limits under § 261.38(c)(2)(ii)(C) continue to apply.[16] [17] The hazardous waste operating requirements serve as conditions for exclusion of the ECF. Consequently, if the burner fails to comply with the hazardous waste operating requirements when burning ECF, the ECF loses the exclusion and must be managed as hazardous waste from the point of generation.[18]

B. What Are the Operating Conditions for Burners?

ECF must be burned under the following operating conditions to be excluded, as provided by § 261.38(c)(2)(ii):[19] [20]

- The feedrate of ECF constituents (i.e., oxygenates and hydrocarbons) must not exceed the limits provided by Table 2 to § 261.38;[21]
- Carbon monoxide (CO) concentrations in the stack gas must be monitored continuously, must be linked to an automatic ECF feed cutoff system, and must not exceed 100 ppmv on an hourly rolling average (corrected to 7% oxygen);
- The boiler must fire at least 50% primary fuel on a heating value and mass basis, and the primary fuel must be fossil fuel, fuels derived from fossil fuel, tall oil, or comparable fuel with a heating value of 8,000 Btu/lb or greater;
- The boiler load must be 40% or greater;
- Key operating parameters (i.e., CO; gas temperature at the inlet to the electrostatic precipitator (ESP) or fabric filter (FF) unless coal is the primary fuel; indicator of boiler load; ECF feedrate; primary fuel feedrate) must be linked to a system that automatically cuts off the ECF feed if the limits on the parameters are exceeded;
- ECF must be fired into the primary fuel flame zone;
- The ECF firing system must provide proper atomization; and
- If the boiler is equipped with an ESP or FF and does not fire coal as the primary fuel, the combustion gas temperature at the inlet to the ESP or FF must be continuously monitored, must be linked to the automatic ECF feed cutoff system, and must not exceed 400 °F on an hourly rolling average.

IV. What Are the Recordkeeping, Notification, and Certification Conditions?

A. Fuel Analysis Plans

ECF generators must develop a fuel analysis plan prior to sampling and analysis of their ECF to determine if the ECF meets the exclusion specifications. See § 261.38(b)(4).

ECF burners may also be required to develop a fuel analysis plan as a condition of the exclusion. Specifically, when burning ECF, burners must know the as-fired heating value and the as-fired concentration of the ECF constituents for each fuel fed to the boiler. If a burner does not receive from the generator documentation of the heating value and concentration of the ECF constituents for each shipment or use the default values for primary fuels provided by § 261.38(c)(2)(ii)C), the burner must develop a fuel analysis plan.[22]

All sampling and analysis plans must document: (1) Sampling, analysis, and statistical analysis protocols that were employed; (2) sensitivity and bias of the measurement process; (3) precision of the analytical results for each batch of fuel tested; and (4) the results of the statistical analysis.

B. Sampling and Analysis

ECF must meet all of the specifications for comparable fuel, except the specifications for hydrocarbons and oxygenates. Sampling and analysis is required for all constituents (unless the generator uses process knowledge as discussed below) because, even though the specifications for hydrocarbons and oxygenates are not applicable, the concentrations of those constituents must be known to demonstrate compliance with the feed rate limits for each constituent under § 261.38(c)(2)(ii)(C) (i.e., to satisfy this condition of the exclusion). The generator must document the claim that specific hazardous constituents meet the exclusion specifications based on process knowledge. Just as for comparable fuel, the following cannot be determined to "not be present" in the fuel based on process knowledge: (1) A hazardous constituent that causes the ECF to exhibit the toxicity characteristic or hazardous constituents that were the basis for the waste code in 40 CFR 268.40; (2) a hazardous constituent detected in previous analysis of the ECF; (3) a hazardous constituent introduced into the process that generates the ECF; or (4) a hazardous constituent that is a byproduct or side reaction to the process that generates the ECF.

Regardless of which method a generator uses, testing or process knowledge, the generator is responsible for ensuring that the ECF meets all constituent specifications at all times. If at any time the ECF fails to meet any of the specifications, or other conditions of the exclusion, the ECF loses the exclusion and is subject to regulation as hazardous waste from the point of generation.

[16] Although the hazardous waste combustor operating requirements ensure that 99.99% DRE and good combustion is achieved, the ECF constituent feedrate limits are needed to ensure that emissions from the hazardous waste combustor are comparable to fuel oil emissions.

[17] In addition, to implement the ECF feedrate limits, the ECF automatic feed cutoff system requirements under § 261.38(c)(2)(ii)(G) that apply to monitoring the constituent feedrate limits as specified under § 261.38(c)(2)(ii)(G)(1)(ii) also apply to HWCs.

[18] See discussion in Part Four, Section V.A, below for the rationale for this provision.

[19] Note, however, that if ECF is burned in a hazardous waste combustor operating under a RCRA permit, these operating conditions do not apply, except for the ECF constituent feedrate limits. In this situation, all operating requirements that apply to hazardous waste burning apply as conditions for burning ECF.

[20] Please note also that boiler operators must be trained to operate and maintain the boiler and monitoring systems to ensure compliance with the burner conditions. See § 261.38(c)(2)(iii).

[21] See discussion in Part Three, Section III.B.3 below for the rationale for this provision and how it will be implemented. See also § 261.38(c)(2)(ii)(C).

[22] As noted earlier, EPA expects that in the majority of situations, the generator and burner of the ECF will be the same. In this case, the fuel analysis plan required for burners may be incorporated in the generator's fuel analysis plan.

C. Speculative Accumulation and Legitimacy

This rule adopts the same speculative accumulation provisions for ECF under § 261.38(b)(7) as those applying to existing comparable fuel and to any recycled hazardous waste under § 261.2(c)(4). Generators and burners must "turn over" annually at least 75 percent of the ECF on hand at the beginning of each calendar year. See the definition of "accumulated speculatively" in § 261.1(c)(8). An ECF generator must burn or ship off site for burning during the calendar year at least 75% of the ECF on hand on January 1. An ECF burner must burn during the calendar year at least 75% of the ECF on hand on January 1. Although there is no formal recordkeeping requirement associated with the speculative accumulation provision, the burden of proof is on the generator and burner to demonstrate that the ECF has not been speculatively accumulated.

In addition, as like all other hazardous secondary materials being recycled, ECF must satisfy legitimacy criteria assuring that recycling is not a sham for waste management. See, *e.g.* 72 FR 14197–198. Here, the ECF constituent specifications (identical concentrations of most hazardous constituents in ECF and fuel oil), substantial heating value in the oxygenates and hydrocarbons present in higher concentrations than in fuel oil, and conditions on burning assuring the same emissions from a boiler burning ECF as from burning fuel oil, all assure that ECF will be recycled legitimately.

D. Notifications

In order to be excluded, ECF generators and burners must comply with the same notification requirements that apply to comparable fuel burners and generators, along with a few additional notification conditions.

1. ECF Generator Notification

The ECF generator is the person who initially generates the hazardous secondary material (otherwise classified as a hazardous waste) and who documents and certifies that the material meets the ECF exclusion criteria. The generator must submit a one-time initial notification [23] to the RCRA and CAA regulatory authorities under § 261.38(b)(2)(i)(A) which contains general facility identification information, a certification stating that the generator is meeting the conditions under § 261.38, and ECF-specific information including:

- An estimate of the average and maximum monthly and annual quantity of hazardous secondary material for which the ECF exclusion is claimed;
- An estimate of the annual quantity of each hazardous secondary material stream for which the ECF exclusion is claimed; and
- An estimate of the maximum concentration of each ECF constituent (*i.e.*, hydrocarbons and oxygenates) in each ECF stream for which the ECF exceeds the comparable fuel specification levels in Table 1 to § 261.38.

2. ECF Burner Notifications

All ECF burners must publish a public notice in a major newspaper of general circulation local to the facility that provides information including (see § 261.38(b)(2)(ii)):

- General facility identification information; and
- An estimate of the average and maximum monthly and annual quantity of ECF to be burned.

In addition, ECF burners must submit a one-time initial notification to the RCRA and CAA regulatory authorities providing general facility identification information and ECF-specific information including (see § 261.38(c)(5)):

- An estimate of the maximum annual quantity of ECF that will be burned; and
- An estimate of the maximum as-fired concentrations of each hydrocarbon and oxygenate for which the ECF exceeds the comparable fuel specification levels in Table 1 to § 261.38.[24]

Finally, ECF burners must submit a notification to the RCRA and CAA regulatory authorities within 5 days of exceeding an operating limit that is linked to the ECF automatic feed cutoff system. The notification must document: (1) The exceedance; (2) the measures the burner has taken to manage the material as a hazardous waste; and (3) the measures the burner has taken to notify the generator that the burner has failed to comply with a condition of the exclusion.

3. Notification of Closure of a Tank or a Container Storage Unit

ECF generators and burners that store ECF in a tank or container must submit a notification to the RCRA regulatory authority when a tank or a container storage area goes out of ECF service.[25] The notification must state the date when the tank or container storage unit is no longer used to store ECF. A tank or container storage unit is out of ECF service if it no longer is used to store ECF that is destined to be burned under the conditions of the exclusion.

E. Burner Certification

ECF burners intending to accept ECF from off-site generators must provide the ECF generator with a one-time written, signed statement that includes the following: (1) A certification that the burner will meet the conditions under § 261.38 and that the State in which the burner is located is authorized to exclude ECF under § 261.38; and (2) general facility identification information.

F. Recordkeeping

ECF generators are subject to the same recordkeeping requirements that currently apply to comparable fuel generators. ECF burners are also subject to recordkeeping requirements as a condition of exclusion. Records must be maintained for three years.

1. ECF Generator Recordkeeping Requirements

As a condition of exclusion, ECF generators must maintain records containing information including: (1) Documentation of compliance with the applicable conditions of the exclusion; (2) the monthly and annual quantities of each hazardous secondary material that is excluded; and (3) for each off-site shipment, name and address of the burner, quantity of ECF shipped and delivered, date of shipment and delivery, and a cross-reference to the record of information used to document that the fuel meets the ECF specification. See § 261.38(b)(8).

2. ECF Burner Recordkeeping Requirements

ECF burners must keep a record of information required to comply with the operating requirements under § 261.38(c)(2) in order to be excluded.

[23] Please note that, if the generator currently claims an exclusion for comparable fuel and has previously submitted a notification for the comparable fuel, the generator must submit an additional notification to claim an exclusion for ECF.

[24] EPA proposed that burners notify as to the estimated amount of ECF burned monthly and annually (see 72 FR at 3310), but did not propose that the notification include concentration of ECF constituents. However, the proposed rule did not include conditions on the feedrate of ECF constituents, although EPA solicited comment on that possibility, and is adopting that approach in this final rule. EPA views notification of ECF constituent levels as a logical corollary to the rule's feedrate provisions.

[25] This provision is useful in assessing inspection priorities, and in assuring that tanks and containers are closed pursuant to the subtitle C standards if accumulated solids and liquids are not removed within 90 days of cessation of operation as an ECF storage unit. However, EPA considers the provision to be legally severable from the other conditions attached to the management of ECF.

Off-site burners must also keep records of each shipment of ECF received, including: (1) The name, address, and EPA ID number of the generator;[26] (2) the quantity of ECF delivered; and (3) the date of delivery.

G. Transportation

DOT requirements applicable to hazardous materials under 49 CFR Parts 171–180 apply to ECF. Those standards include a requirement for a shipping paper.

H. Ineligible RCRA Hazardous Waste Codes

Consistent with the current comparable fuel exclusion, hazardous wastes listed for the presence of dioxins or furans are not eligible for the ECF exclusion. See § 261.38(b)(11).

V. What Are the Consequences of Failure To Comply With a Condition?

It is the responsibility of the generator claiming the exclusion to demonstrate eligibility.[27] More specifically, to be eligible for this exclusion, the person claiming the exclusion must document that ECF meets the ECF specifications under § 261.38(a)(2), as well as the other conditions of the exclusion, including: the conditions prohibiting blending and diluting to achieve the specifications under § 261.38(a)(4) and (a)(7); the implementation conditions under § 261.38(b); and the special conditions for managing ECF under § 261.38(c).

After the exclusion for a hazardous secondary material has been claimed, the conditions of the exclusion must continue to be met to maintain the exclusion.[28] If any person managing ECF fails to meet a condition of the exclusion, the exclusion is lost and the fuel must be managed as a hazardous waste from the point of generation. Therefore, except as discussed below, EPA (or an authorized state) could choose to bring an enforcement action under RCRA section 3008(a) for all violations of the RCRA subtitle C requirements occurring from the time the hazardous secondary material is generated through the time that it is ultimately burned. See § 261.38(d).

If, however, the generator that claims the exclusion for ECF that is burned in an off-site, unaffiliated burner[29] documents in the operating record that it has made reasonable efforts to ensure that the burner complies with the conditions of the exclusion, the hazardous secondary material will not be considered a hazardous waste when managed by the generator upon a finding that the burner has not complied with a condition of the exclusion. The reasonable efforts must be based on an objective evaluation, both prior to the first shipment and periodically thereafter, that the burner would manage the ECF under the applicable conditions of § 261.38. See discussion in Part Four, Section VI.A below.

VI. What Conditions Apply to Spills and Leaks?

ECF that is spilled or leaked, not cleaned up immediately and which no longer meets the conditions of the exclusion, is "discarded." Thus, it is a solid waste. Such spilled or leaked ECF is a hazardous waste if it exhibits a characteristic of hazardous waste or if the ECF were otherwise a listed hazardous waste.

Furthermore, the exclusion would not affect the obligation to promptly respond to and remediate any releases of ECF that may occur. Management of the released material not in compliance with applicable Federal and State hazardous waste requirements could result in an enforcement action. For example, a person who spilled or released ECF and failed to immediately clean it up could potentially be subject to enforcement for illegal disposal of ECF. See, for example, § 264.1(g)(8). In addition, the release could potentially be addressed through enforcement orders, such as orders under RCRA sections 3013 and 7003.

In addition, ECF that is spilled or leaked and can no longer be burned under the conditions of the exclusion is a waste (it is a hazardous waste if it exhibits a characteristic of hazardous waste or if the ECF were otherwise a listed hazardous waste) and must be managed in accordance with existing federal and state regulations. Furthermore, if an ECF tank system or container ceases to be operated to store ECF product, but has not been cleaned by removing all liquids and accumulated solids within 90 days of cessation of the ECF storage operations, the tank system or container would become subject to the RCRA subtitle C hazardous waste regulations.[30] (This is the same principle that applies to any product storage unit when it goes out of service. See § 261.4(c).) Liquids and accumulated solids removed from a tank system or container that ceases to be operated for storage of ECF product are waste (they are hazardous wastes if they exhibit a characteristic of hazardous waste or if the ECF were otherwise a listed hazardous waste).

VII. What Are the Clarifications and Revisions to the Existing Conditions for Comparable Fuel?

We are amending several provisions that apply to the comparable fuel conditions for the same reasons that we are applying the amended provisions to ECF. Specifically, those amendments are:

- We are clarifying the consequences of failure to satisfy the conditions of the existing comparable fuel exclusion. That is, we are clarifying that excluded fuel that is spilled or leaked and that no longer meets the conditions of the exclusion must be managed as a hazardous waste if it exhibits a characteristic of hazardous waste or if it is otherwise a listed hazardous waste. See § 261.38(b)(15).
- We are clarifying the status of tank systems and container storage units that cease to be operated as comparable fuel storage units. That is, the tank system and container storage unit become subject to the RCRA hazardous waste facility standards if not cleaned of liquids and accumulated solids within 90 days of ceasing operations as a comparable fuel storage unit. We are also clarifying that discarded liquids and accumulated solids removed from the tank and container after the tank or container ceases to be operated for storage of comparable fuel must be managed as hazardous waste if they exhibit a characteristic of hazardous waste or if they are otherwise listed hazardous wastes. See § 261.38(b)(13).
- We are waiving the RCRA closure requirements for tank systems and container storage units that are used only to store hazardous wastes that are subsequently excluded as comparable fuel. See § 261.38(b)(14), and discussion above in Part Two, Section II.C.2.

[26] ECF generators (and off-site burners) must obtain an EPA ID number. See §§ 261.38(b)(2)(i)(A)(1) and (c)(4).

[27] The burden for demonstrating with appropriate documentation compliance with the conditions of an exclusion in an enforcement action is on the person claiming the exclusion. 40 CFR 261.2(f).

[28] Separate and distinct from any requirement or condition established under this rule, all generators of a secondary material—including ECF generators under this exclusion—have a continuing obligation to conduct proper hazardous waste determinations, including notifying the appropriate government official if they are generating a hazardous waste. 40 CFR 262.11.

[29] An unaffiliated burner is a boiler or hazardous waste combustor located at a facility that is not owned by the same parent company that generated the ECF.

[30] If the storage unit is used to actively accumulate hazardous waste after being taken out of service as an ECF product storage unit, the storage unit may be eligible for the provisions under § 262.34 that waive the permit requirements for generator storage units that accumulate hazardous waste for not more than 90 days.

• We are clarifying the regulatory status of boiler residues, including bottom ash and emission control residue. That is, these wastes would be hazardous if they exhibit a hazardous waste characteristic. See § 261.38(b)(12).

• We are requiring that the one-time notice by the generator to regulatory officials include an estimate of the average and maximum monthly and annual quantity of comparable fuel for which an exclusion is claimed.[31] See § 261.38(b)(2)(i)(A). This condition applies prospectively to generators that newly claim the exclusion and to generators that must submit a revised notification because of a substantive change in the information required by the notice.

In addition, please note that, as proposed, the final rule restructures the current conditions for comparable fuel (and syngas fuel) to make the regulatory language more readable given that the regulation must accommodate the exclusion for ECF. See 72 FR at 33289. Consequently, we have redrafted the entire section for clarity. In addition, we proposed certain technical corrections to several provisions of the rule.[32] Those language changes are purely technical and are promulgated in this final rule. As explained at proposal, we did not reexamine, reconsider, or otherwise reopen these provisions for comment.

Part Three: What Are the Major Changes Since Proposal?

I. What Are the Major Changes to the Emission-Comparable Fuel Specification?

Under the final rule, the specifications in Table 1 to § 261.38 do not apply to hydrocarbons and oxygenates in ECF. See § 261.38(a)(2)(ii)(B).

The proposed rule would have continued to apply the specifications to naphthalene and the 10 PAHs listed in Table 1 to § 261.38. We were concerned that, when ECF with high concentrations of the hydrocarbons or oxygenates for which the specifications would not apply is burned, emissions of those compounds may be somewhat higher than from burning fuel oil, even though the boiler is operating under good combustion conditions and achieving 99.99 percent destruction and removal efficiency for organic compounds in the feed. If, notwithstanding the conditions proposed for burning, emissions of naphthalene or the PAHs from burning ECF under a particular situation were higher than emissions from burning fuel oil, we were concerned that ECF emissions may not remain protective.

Given that the final rule (unlike the proposed rule) establishes feedrate limits for each ECF constituent,[33] we now have objective assurance that a boiler burning ECF will have emissions comparable to a boiler burning fuel oil. Consequently, it is no longer necessary to continue to apply the specifications to naphthalene and the 10 PAHs. See discussion of the need for feedrate limits, and an explanation of how they are derived, in Part Three, Section III.B.3 below.[34]

In addition, the specification for minimum heating value under the final rule is 8,000 Btu/lb, and the ECF must meet this specification as generated. The proposed rule would have established a minimum heating value specification of 5,000 Btu/lb, but would have required an as-fired minimum heating value of 8,000 Btu/lb. 72 FR at 33296. The final rule establishes a minimum 8,000 Btu/lb specification as generated consistent with the principle that the conditions which assure that ECF is not discarded all apply to ECF as generated. A heating value for ECF, as-fired, of 8,000 Btu/lb is one of those conditions—it is necessary to assure that emissions from a boiler burning ECF are comparable to a boiler burning fuel oil. This assures that ECF is comparable to fuel oil when burned from the standpoint of physical composition and emissions, and confirms that ECF is reasonably classified as a fuel product and not as a discarded waste. Accordingly, the final rule requires as a condition of the exclusion that the minimum heating value specification applies to ECF as it is generated. See also discussion in Part Two, Section I above.

II. What Are the Major Changes to the Storage Conditions?

A. Storage in Containers Is Allowed

The final rule allows storage of ECF in containers. The proposed rule would have allowed storage only in tanks, but requested comment on whether generators would be likely to store ECF in containers. Several commenters stated that limiting ECF storage to tanks would render small volume facilities ineligible without a rational basis. We believe this is a valid critique and have, therefore, established in the final rule conditions for storage of ECF in containers based on the same principles that we used to establish conditions for storage of ECF in tanks. See § 261.38(c)(1).

B. Alternative Storage Conditions Are Provided

The final rule establishes alternative storage conditions that are adopted solely from the hazardous waste storage requirements under Part 264. See § 261.38(e). These controls are of comparable stringency to those drawn from the storage requirements for fuel products and organic liquid products and by-products. You may comply with these conditions in lieu of the collection of storage conditions adopted from the storage requirements for other materials: Discharge prevention requirements adopted from the SPCC requirements for oil storage facilities; containment and emergency procedure requirements adopted from the hazardous waste storage requirements; and fugitive air emission controls adopted from several NESHAP (National Emission Standards for Hazardous Air Pollutants). See discussion in Part Four, Section III.B for the rationale for these alternative conditions.

C. Conditions To Control Fugitive Air Emissions From Tank Systems Are Revised

In response to comments on the proposed rule, we reevaluated the controls for air emissions from tanks and determined that: (1) We proposed conditions to expand the applicability of the OLD controls to tank capacity/ECF vapor pressure scenarios that would result in controls more stringent than those that apply to hazardous waste tanks; (2) there are several other tank capacity/ECF vapor pressure scenarios for which OLD is not applicable and for which we inadvertently did not propose conditions to expand OLD control; and (3) we inadvertently did not propose conditions to control air emissions for tanks that store ECF that does not meet

[31] Providing an estimate of excluded quantities would help regulatory officials establish inspection and monitoring priorities. Omission of this condition was an oversight when the exclusion was initially promulgated. We conditioned the exclusion on the burner issuing a public notice that included this information (see existing § 261.38(c)(1)(ii)(D)), but we inadvertently did not specify that the generator who claims the exclusion was to provide this same information to regulatory officials.

[32] See memorandum from Bob Holloway, USEPA, to Docket ID No. EPA–HQ–RCRA–2005–20017, dated January 10, 2007.

[33] ECF constituent means the hydrocarbons and oxygenates in Table 1 to § 261.38, for which the specifications do not apply for ECF.

[34] In addition to these changes to the ECF specification, the final rule also requires that ECF must meet the viscosity specification as generated. Viscosity is a specification that must be met (for both ECF and comparable fuel) before a hazardous secondary material is excluded as a fuel product. Given that ECF may not be treated to meet the specifications, ECF must meet the viscosity (and other) specifications as generated.

the adopted definition of organic liquid, and thus would not be subject to OLD control. We have addressed these issues and revised the fugitive air emission conditions for tanks, as discussed in Part Four, Section III.C below.

D. Storage in Underground Storage Tanks Is Prohibited

Storage of ECF in underground storage tanks is prohibited, as discussed in Part II, Section II.C.1, above. Although the proposed rule would have allowed storage in underground tanks, the final rule prohibits such storage to avoid adding further complexity to the rule for a practice that commenters did not indicate would be widely used, if used at all.

III. What Are the Major Changes to the Burner Conditions?

A. What Types of Devices May Burn Emission-Comparable Fuel?

Under the proposed rule, ECF could be burned only in an industrial or utility boiler that is a watertube type of steam boiler that does not feed fuel using a stoker or stoker-type mechanism. The final rule also allows ECF to be burned in hazardous waste combustors operating under a RCRA permit and in compliance with the applicable requirements under Subpart O, Part 264, Subpart H, Part 266, and Subpart EEE, Part 63, under the condition that the ECF is burned under the same operating requirements that apply to hazardous waste burned by the combustor. The ECF burner operating conditions do not apply to hazardous waste combustors, except for the ECF constituent feedrate limits. See discussion in Part Four, Section V.A below, and § 261.38(c)(2)(i)(B).

B. What Are the Changes to the Burner Conditions?

1. Comparable Fuel May Be Primary Fuel

To meet the condition that ECF must be fired with at least 50 percent primary fuel on a heat or mass input basis, the final rule adds comparable fuel with an as-fired heating value of 8,000 Btu/lb or higher to the list of fuels that may be used as a primary fuel. Consequently, you may use the following fuels as primary fuel, provided that they have an as-fired heating value of 8,000 Btu/lb or higher: Fossil fuel; fuels derived from fossil fuel; tall oil; or comparable fuel. See discussion in Part Four, Section V.D below, and § 261.38(c)(2)(ii)(A) and (B).

2. The 50 Percent Primary Fuel Firing Rate Is Based on Heat and Mass Input

A minimum of 50 percent of the fuel fired to the boiler must be primary fuel, determined on a total heat and mass input basis.[35] The proposed rule inadvertently stated that the minimum 50 percent firing rate condition must be determined on a total heat input or *volume* input basis, whichever results in a greater *volume* feedrate of primary fuel. A mass basis for the calculation of the primary fuel firing rate is more appropriate than a volume basis because it is consistent with the mass feedrate limits for the ECF constituents, as discussed below. We also note that the parallel provision for hazardous waste boilers for which the DRE standard is waived (see § 266.110) bases the 50 percent minimum primary fuel requirement on a heat or mass input, whichever results in the greater mass input of primary fuel.[36]

3. A Feedrate Limit for Each ECF Constituent Is Established

The final rule establishes in Table 2 to § 261.38 as a condition of the exclusion a maximum allowable feedrate limit normalized by gas flowrate for each ECF constituent[37] for which the specification does not apply under paragraph (a)(2)(ii)(B). The gas flowrate-normalized feedrate limits have the units, ug/dscm, and are converted to feedrate limits, kg/hr of ECF constituents, by multiplying by the stack gas flowrate, dscm/hr. Although we did not propose regulatory language for feedrate limits for ECF constituents, we discussed at proposal the approach we would use to establish the limits, and presented example limits. 72 FR at 33315–16.[38] We have considered comments on the proposed approach and have refined the approach for the final rule, as discussed below.

The ECF constituent feedrate limits provide objective assurance that the emissions from ECF burning are comparable to the emissions from burning fuel oil: Emissions of ECF constituents from an industrial boiler burning ECF will be comparable to emissions of those compounds from an industrial boiler burning fuel oil. The proposed rule would have addressed this issue by continuing to apply the comparable fuel specifications to PAHs and naphthalene because: (1) When ECF with high concentrations of the hydrocarbons or oxygenates for which the specifications would not apply is burned, emissions of those compounds may be somewhat higher than from burning fuel oil, even though the boiler is operating under good combustion conditions; and (2) higher emissions of PAHs and naphthalene would raise protectiveness concerns because these compounds pose a relatively high hazard compared to other hydrocarbons and the oxygenates listed in Table 1 to § 261.38. 72 FR at 33299. Given that the final rule provides objective assurance through conditions on the feedrate for each ECF constituent that the emissions from ECF burning are comparable to the emissions from burning fuel oil that would often otherwise be the fuel of choice, the rationale for continuing to apply the specifications for these compounds is no longer valid.

Similarly, the proposed 25 percent maximum ECF firing rate limit when benzene or acrolein concentrations exceed two percent is no longer needed. See 72 FR at 33299. The limitation (through conditions) of feedrate of each ECF constituent is a more direct way than the proposed firing rate limit on ECF as a whole to assure that emissions from burning ECF would be comparable to emissions from burning fuel oil.

We discuss below how we derived the feedrate limits and how they are implemented.

[35] We note that this condition was worded at proposal as "The 50 percent primary fuel firing rate shall be determined on a total heat or volume input basis, whichever results in the greater volume feedrate of primary fuel fired." As a practical matter, this means that the primary fuel must provide at least 50% of the heat input to the boiler *and* at least 50% of the volume input of fuels to the boiler. To ensure that the meaning is clear, the final rule expresses the condition as follows: The primary fuel shall comprise at least 50% of the total fuel heat input to the boiler and at least 50% of the total fuel mass input to the boiler. (Note further that we explain in the preamble that we meant to specify the mass input at proposal rather than the volume input.) As an example of how the condition works, if the primary fuel were to provide 60% of the heat input to the boiler but only 40% of the fuel mass input, the mass input must be increased to at least 50%.

[36] We note further that, when EPA initially promulgated the § 266.110 provisions, the rule established the 50 percent primary fuel firing rate on a heat input or volume input, whichever resulted in the greater volume input of primary fuel. EPA subsequently amended the provision, however, to change the volume basis to a mass basis. See 56 FR at 42510 (Aug. 27, 1991).

[37] ECF constituent means the hydrocarbons and oxygenates listed in Table 1 to § 261.38 and for which the specifications do not apply for ECF.

[38] As discussed at proposal (72 FR at 33314), we requested comment on establishing feedrate limits for each ECF constituent in response to a peer review comment stating that it may be problematic to conclude that ECF emissions would invariably be comparable to emissions from burning fuel oil. This is because ECF could have unlimited concentrations of hydrocarbons and oxygenates and that combustion is generally considered to be a constant percent reduction process. Thus, as the concentration of an organic constituent in the feed increases, the concentration of the compound in the emissions may also increase.

a. *Overview of Approach to Establishing Feedrate Limits.* To calculate the ECF constituent feedrate limits, we first identified the industrial boiler fuel oil emission level for each constituent (*i.e.*, measured levels of that constituent in emissions from industrial boilers burning fuel oil) or, where fuel oil emissions data were not available for a specific ECF constituent, a surrogate emission level. We then projected a DRE for each constituent, considering available DRE data, the thermal stability of the compound, and whether the compound is commonly formed as a product of incomplete combustion (PIC). We then back-calculated a maximum feedrate limit that is normalized by stack gas flowrate, and that has the units, ug/dscm. The gas flowrate-normalized feedrate is converted to an ECF constituent feedrate limit (*i.e.*, kg/hr) by multiplying by the boiler gas flowrate (*i.e.*, dscm/hr).

b. *Fuel Oil Emission Levels.* We have industrial boiler fuel oil emissions data for 12 of the 37 ECF constituents.[39] We used the highest test condition average emissions to establish the maximum allowable emission levels for these 12 constituents. It is reasonable to use the highest test condition average as the maximum allowable emission level rather than the average or 95th percentile because the data base is not robust—the full range of boiler emissions may not be represented by the limited data base. Using the highest test condition average is a reasonable means of accounting for emissions variability.

For the other 25 ECF constituents-the two PAHs and the oxygenates other than acrolein—we identified surrogates for industrial boiler oil emission levels.[40] For the two PAHs, we identify a surrogate oil emission level of 0.02 ug/dscm using emission data from other PAHs for which we do have emission data from oil-burning boilers. This approach is reasonable because: (1) 0.02 ug/dscm is at the low end of the range of emission levels for PAHs from oil-burning boilers[41]; and it is appropriate to select from the low end of this range because PAHs are more toxic than the other hydrocarbons and the oxygenates[42]; and (2) available emissions data indicate that PAHs are emitted at substantially lower levels—less than 0.6 ug/dscm—than either the oxygenates or the other hydrocarbons and the emission level we selected are consistent with these data.

For the oxygenates, we identified a surrogate oil emission level of 18 ug/dscm because: (1) It is the only available emission level in our data base for an oxygenate (*i.e.*, acrolein) from a boiler burning fuel oil; (2) it is in the range of emission levels for oxygenates from other combustion sources[43]; and (3) although it is not at the low end of the range of oxygenate emissions from combustion sources, it is an appropriate surrogate emission level because it would result in *de minimis* health risk.[44]

c. *Projected Destruction and Removal Efficiencies (DREs).* We projected DREs for each of the 37 ECF constituents considering the available DRE data, the thermal stability of the compound, and whether, even under good combustion conditions, the compound is commonly formed as a PIC.[45]

As discussed at proposal, we investigated the DRE data available for hazardous waste-fired liquid fuel boilers to project a DRE for the ECF constituents.[46] We have both DRE and feedrate data for approximately 200 runs from 27 boilers for 10 compounds. Two of those compounds are ECF constituents: Benzene and toluene. Based on analysis of those data (*i.e.*, the DRE data for the ECF constituents and other compounds), it was reasonable to project a DRE for ECF constituents in the feed of 99.99 percent for thermal stability class 1 and 2 compounds (which are more difficult to destroy), and a DRE for ECF constituents in the feed of 99.995 percent for class 3–7 compounds.[47]

During development of the final rule and in response to public comment,[48] however, we concluded that, for ECF constituents that are commonly formed as PICs (*i.e.*, benzene, naphthalene, phenol, and toluene),[49] the effective, measured DRE may be lower (*i.e.*, appearing to be less efficient destruction evidenced by emissions of the compound), particularly at low constituent feedrates, even under good combustion conditions, considering the total emissions of the compound: Emissions from unburned compounds in the feed, and emissions attributable to PIC formation during the incomplete destruction of other compounds in the ECF and other boiler fuels. Although the DRE for the quantity of the compound in the feed to the boiler would be at least 99.99% under good combustion conditions, the effective, measured DRE of compounds that are common PICs may be lower than 99.99% when they are fed at low feedrates. This is because at low feedrates, the portion of the compound in the emissions that is attributable to PICs, rather than unburned compound in the feed, can be substantial. As the compound feedrate increases, emissions of the compound attributable to unburned compound in the feed mask the quantity of the compound present as a PIC, and the effective, measured DRE becomes more representative of the feed-related DRE. Because ECF constituents can be fed at low feedrates, however, the DRE used to calculate the ECF constituent feedrate limits for the constituents that are common PICs—benzene, naphthalene, phenol, and toluene—must account for the proportion of the emissions of the constituent that is emitted as unburned compound in the feed relative to the portion of emissions attributable to PICs

[39] We have oil emissions data for benzene, naphthalene, toluene, acrolein and eight of 10 PAHs.

[40] For more information than provided in the preamble, see USEPA, "Final Technical Support Document for the Expansion of the Comparable Fuels Exclusion," November 2008, Section 6.3.

[41] The oil emissions data for the eight PAHs are: 0.005 ug/dscm; 0.02 ug/dscm; 0.04 ug/dscm; 0.1 ug/dscm; 0.1 ug/dscm, 0.16 ug/dscm; 0.18 ug/dscm; and 0.61 ug/dscm.

[42] See the relative hazard ranking for the ECF constituents in USEPA, "Final Technical Support Document for the Expansion of the Comparable Fuels Exclusion," November 2008, Section 2.4.

[43] Hazardous waste boilers operating under good combustion conditions can emit oxygenates in the range of 0.6 ug/dscm to 130 ug/dscm, and coal boilers can emit oxygenates in the range of 1.6 ug/dscm to 38 ug/dscm. See USEPA, "Final Technical Support Document for the Expansion of the Comparable Fuels Exclusion," November 2008, Section 6.3.

[44] Maximum annual ground level concentrations of the oxygenates will be orders of magnitude lower than the reference air concentrations (RfCs) for the oxygenates other than acrolein. (The RfC is an estimate of a continuous inhalation exposure concentration to people (including sensitive subgroups) that is likely to be without risk of deleterious effects during a lifetime.) See USEPA, "Final Technical Support Document for the Expansion of the Comparable Fuels Exclusion," November 2008, Section 6.3. Although the RfC for acrolein is much lower than the RfCs for the other oxygenates such that maximum annual ground level concentrations of acrolein from burning ECF could approach this RfC, we have emissions data for acrolein from an oil-burning boiler and therefore do not need to identify (and justify) a surrogate emission level to back-calculate a feedrate limit.

[45] For purposes of this discussion, PICs are compounds in emissions that are formed from the incomplete destruction of organic compounds in the ECF and other boiler fuels.

[46] See 72 FR at 33315–16, and Document No. EPA–HQ–RCRA–2005–0017–0067 and Document No. EPA–HQ–RCRA–2005–0017–0068.

[47] The Thermal Stability ranking classifies (generally) hazardous compounds according to their gas phase thermal stability under oxygen-starved conditions. Compounds are ranked according to the temperature required to destroy 99% of the compound in 2 seconds under oxygen-starved conditions. See USEPA, "Guidance on Setting Permit Conditions and Reporting Trial Burn Results, Volume II of the Hazardous Waste Incineration Guidance Series," January 1989, Table D–1.

[48] See USEPA, "Comment Response Document for the Exclusion of Emission-Comparable Fuel," October 2008, Section 4.7, Comment No. 126A.9.

[49] USEPA, "Final Technical Support Document for the Expansion of the Comparable Fuels Exclusion," November 2008, Section 6.3.

at low feedrates. Thus, the DREs used to calculate the feedrate limits for the common PICs may be lower than the DREs associated with higher feedrates where the PIC contribution is masked by unburned compound in the feed.[50] [51]

Although 14 ECF constituents are thermal stability class 1 or 2 compounds for which we project a feed-related (not effective) DRE of 99.99%, three of those compounds are common PICs: Benzene, naphthalene, and toluene. For these three compounds, we believe it is reasonable to consider reducing the feed-related DRE by an order of magnitude to project a default, effective DRE of 99.9% to account for PIC emissions at low feedrates of these compounds. We note, however, that we have substantial DRE data for benzene (from two boilers at one source) documenting (effective) DREs below 99.9 percent at low feedrates in the range allowed for ECF. Consequently, we project a DRE for benzene of 99.7% because it is at the low end of the range of DREs achieved at the low feedrates at which benzene in ECF may be fed.[52] In addition, we note that, for toluene, we have approximately 20 DRE runs at low feedrates (i.e., the same low feedrates for which benzene DREs were well below 99.99%), all of which are *above* 99.99%.[53] We also have more than 20 DRE runs for toluene at moderate feedrates, and all but one of those runs achieved greater than 99.99% DRE. The lowest run achieved 99.987% DRE. Consequently, we believe that a projected DRE of 99.99% is appropriate and is more in line with the measured DREs for toluene than the nominal order of magnitude reduction in feed-related DRE for common PICs that we would otherwise apply. We did not have DRE data for naphthalene at proposal, and therefore use the default order of magnitude reduction in DRE to account for PICs (*i.e.*, 99.9%).

For similar reasons, for the thermal stability class 3 compound that is a common PIC—phenol—we project an effective DRE of 99.95 percent, an order of magnitude lower than the 99.995 percent feed-related projected DRE. We did not have DRE data for phenol at proposal, and therefore use the default order of magnitude reduction in DRE to account for PICs.

We also considered whether PICs from the combustion of ECF compounds that are not themselves common PICs could cause an exceedance of the fuel oil (or surrogate) emission levels for the ECF constituents.[54] We note that several ECF constituents are aromatics (*e.g.*, the cresols, the phthalates, and acetophenone) that could form PICs that are ECF constituents. It is reasonable to conclude, however, that PICs from these compounds will not cause an exceedance of the fuel oil (or surrogate) emission levels for other ECF constituents because: (1) Only four ECF constituents are common PICs; and (2) the projected, effective DREs for these PICs, and thus their feedrate limits, account for PIC emissions.

EPA may consider expanding the comparable emissions approach, and revisiting the DRE analysis, in light of new data we may gather. As part of various rulemakings and other activities, EPA may receive data from hazardous waste combustors on emissions and feed used, which might be used to refine the comparable emissions approach.

d. *Implementation of Feedrate Limits.* As discussed above, the feedrate limits are expressed as a gas flowrate-normalized feedrate (ug/dscm), which is the feedrate in mass/unit time normalized by stack gas flowrate. The total feedrate limit (kg/hr) for each ECF constituent, for total boiler fuels, is determined by the boiler gas flowrate and the maximum ECF constituent feedrate (ug/dscm) provided by Table 2 to § 261.38. The maximum feedrate (kg/hr) of a constituent attributable to ECF is the total boiler constituent feedrate (kg/hr) minus the constituent feedrate (kg/hr) for all other boiler feedstreams.

To account for ECF constituents in fuel oil used as the primary fuel, burners may use actual concentrations of ECF constituents in their fuel oil, or the default concentrations based on fuel oil analysis EPA used to support the comparable fuel specification.[55] See Table 3 to § 261.38. Burners may also use other fuels as primary fuel, including coal and natural gas. See § 261.38(c)(2)(ii)(A). If coal is the primary fuel, burners may use actual concentrations of ECF constituents in their coal, or default concentrations based on AP–42 emission factors. See Table 4 to § 261.38. If natural gas is the primary fuel, burners may assume the gas does not contribute ECF constituents.

Example calculations for maximum feedrates of ECF constituents and concentrations of constituents in ECF, and example ECF firing rate restrictions resulting from the ECF constituent feedrate limits are presented in USEPA, "Final Technical Support Document for the Expansion of the Comparable Fuels Exclusion," November 2008, Section 6.3.

4. Additional Operating Parameters Must Be Linked to the ECF Automatic Feed Cutoff System

The final rule requires that additional operating parameters be linked to the ECF automatic feed cutoff system (AFCOS) to ensure compliance with the conditions of the exclusion. In addition to requiring that the ECF AFCOS engage when carbon monoxide levels exceed 100 ppmv on an hourly rolling average and when the combustion gas temperature at the inlet to the initial dry particulate matter control device exceeds 400 °F on an hourly rolling average, as proposed (72 FR at 333296 and 333298), the final rule also requires that the ECF AFCOS engage when: (1) The emission-comparable fuel feedrate limit for a constituent exceeds the limit provided in Table 2 to § 261.38; (2) the primary fuel firing rate is below 50 percent on either a heat input or mass input basis; and (3) the steam production rate (or other appropriate indicator) indicates that the boiler load

[50] If the DRE associated with high ECF constituent feedrates were used to calculate the ECF constituent feedrate limits, emissions from burning ECF at low feedrates would be higher than from burning fuel oil. This is because the allowable emissions of the compound would be calculated assuming incorrectly that the PIC contribution would not be significant at low feedrates. When the PIC contribution is considered, emissions of the compound would be higher than from fuel oil emissions.

[51] Please note that, because we cannot quantify the increase in DRE as feedrate increases, we projected a constant DRE across all feedrates. Nonetheless, we conducted an analysis of DREs at higher feedrates by drawing curves that bound the worst DREs at higher feedrates. That analysis corroborated the ECF constituent feedrate limits calculated by assuming a constant DRE across feedrates. Although the analysis indicates that higher DREs are achieved at higher feedrates, those higher DREs are not high enough to provide comparable emissions, i.e., applying those DREs to the associated feedrates would result in emissions exceeding fuel oil emission levels. See USEPA, "Final Technical Support Document for the Expansion of the Comparable Fuels Exclusion," November 2008, Section 6.3, and the memorandum from Bob Holloway, USEPA, to Docket ID Number EPA–HQ–RCRA–2005–0017, entitled "Projecting DREs to Calculate ECF Constituent Feedrate Limits: Bounding Analysis to Investigate the Relationship Between DRE and Feedrate," dated November 24, 2008.

[52] USEPA, "Final Technical Support Document for the Expansion of the Comparable Fuels Exclusion," November 2008, Section 6.3.

[53] USEPA, "Final Technical Support Document for the Expansion of the Comparable Fuels Exclusion," November 2008, Figure 6–2.

[54] We note that PICs from the combustion of ECF constituents would not result in emissions of compounds other than ECF constituents at levels greater than from oil emissions. This is because the feedrate limits ensure that ECF constituents will not result in emissions of ECF constituents, and by extension PICs from those constituents, at levels higher than fuel oil.

[55] USEPA, "Final Technical Support Document for HWC MACT Standards, Development of Comparable Fuel Specifications," May 1998, Appendix B.

is below 40 percent (i.e., the automatic feed cutoff system activates when one of the conditions on burning is about to be exceeded). See § 261.38(c)(2)(ii)(F)(1).

In addition, the final rule corrects the proposed excessive exceedance reporting requirement to require an exceedance report within five days of exceeding an operating limit linked to the AFCOS when ECF is in the combustion chamber. At proposal, we inadvertently directly adopted for ECF the excessive exceedance reporting requirements applicable to hazardous waste combustors (HWCs). For HWCs, operating parameters that are linked to the automatic waste feed cutoff system are indicators that a source may have failed to maintain compliance with an emission standard. Thus, exceeding one or more operating limits more than 10 times in a 60 day block is considered to be excessive (and indicating an increased possibility that an emission standard may be exceeded), and an excessive exceedance report is required. Upon receipt of an excessive exceedance report, the regulatory authority may review the HWC's operations and provide additional requirements to minimize exceedances.

For ECF burners, however, any exceedance of an operating limit linked to the AFCOS when ECF is in the combustion chamber is a failure to comply with a condition of the exclusion. In that event, the material must be managed as hazardous waste from the point of generation. Accordingly, this final rule requires that the burner notify the regulatory authority within five days of exceeding an operating limit linked to the AFCOS when ECF is in the combustion chamber. Those operating parameters that are linked to the AFCOS and for which limits are established are: (1) CO level in the stack gas; (2) temperature at the inlet to the FF or ESP for sources not burning coal as the primary fuel; (3) an indicator of boiler load; (4) primary fuel firing rate; and (5) feedrate of ECF constituents. The notification must document: (1) The exceedance; (2) the measures the burner has taken to manage the material as a hazardous waste; and (3) the measures the burner has taken to notify the generator that the burner has failed to comply with a condition of the exclusion.

5. Burners Must Provide Operator Training

The final rule includes a condition requiring boiler operator training. See § 261.38(c)(2)(iii). Boiler operator training is needed to ensure compliance with the boiler operating conditions under § 261.38(c)(2)(ii). Although we included a condition in the proposed rule that would require operator training for storage units,[56] and so implied that operator training would generally be an applicable condition, we inadvertently did not propose a parallel condition for boiler operator training.

We are correcting this omission in the final rule. The condition is needed to assure that combustion occurs under the specified conditions, which in turn assures emission comparability, an element of our determination that ECF is not discarded (through destruction of the ECF constituents) when it is burned, but rather is managed (including burned) as a fuel commodity. The boiler operating conditions are sufficiently complex that training is needed to ensure that boiler operation and maintenance personnel can understand and effectively implement the operating requirements of the conditions for exclusion, including the continuous monitoring system requirements and the ECF AFCOS. In fact, without such training, we do not believe that a burner could comply with the conditions on burning, and thus, should not be eligible for the exclusion. (Note: The boiler operator training provision is not redundant to emergency response training requirements under the Occupational Safety and Health Administration (OSHA) regulations at 29 CFR 1910.120(q).)

For purposes of this provision, boiler operators are personnel that operate or maintain the boiler when ECF is burned, including continuous monitoring systems and the ECF AFCOS. The condition requires that boiler operators must successfully complete a program that teaches them to perform their duties in a way that ensures the boiler's compliance with the operating conditions under § 261.38(c)(2)(ii).

The training program must be directed by a person trained in boiler operation procedures, and must include instruction which teaches boiler operators procedures relevant to the positions in which they are employed. At a minimum, the training program must be designed to ensure that boiler operators understand the operating conditions under paragraph (c)(2)(ii) and are able to respond effectively when the ECF AFCOS engages an automatic cutoff of the feed of ECF. Boiler operators must take part in an annual review of the initial training.

The boiler owner or operator must maintain the following documents and records at the facility: (1) The job title and written description of the position for each boiler operator position, and the name of the employee filling each job; (2) a written description of the type and amount of both introductory and continuing training that will be given to each person; and (3) records that document that the required training or job experience has been given to, and completed by, boiler operators.

Training records on current personnel must be kept until ECF is no longer burned in the boiler. Training records on former boiler operators must be kept for at least three years from the date the employee last worked as a boiler operator at the facility.

IV. What Are the Major Changes to the Implementation Conditions?

A. What Are the Changes to the Analysis Plan Provisions for Burners?

To comply with the feedrate conditions for ECF constituents provided by § 261.38(c)(2)(ii)(C) and in Table 2 to § 261.38, the final rule requires that ECF burners must know the as-fired heating value of each fuel and the as-fired concentration of ECF constituents in each fuel fed to the boiler (*e.g.*, fossil fuels and ECF itself). The proposed rule would have established feedrate conditions only on ECF that contained more than two percent benzene or acrolein. These proposed conditions have been superseded by the feedrate conditions for all ECF constituents. See discussion in Section III.B.3 above. Accordingly, the final rule expands the analysis plan requirements for burners to implement the feedrate conditions on ECF constituents. See § 261.38(b)(2)(5).

ECF burners are subject to the fuel analysis plan conditions under § 261.38(b)(4) to determine the as-fired heating value and concentration of ECF constituents in each fuel fed to the boiler, except: (1) The burner may use documentation provided by the generator for each shipment of ECF of the heating value and concentration of ECF constituents[57]; and (2) the burner may use the default primary fuel heating values and ECF constituent concentrations provided in § 261.38(c)(2)(ii)(C)(*4*).

B. What Are the Changes to the Notification Provisions?

1. Initial Notification

For generators of ECF, the final rule expands the information required in the

[56] See proposed § 261.38(c)(1)(iii)(D) that adopts the SPCC training provisions under § 112.7(f).

[57] If the burner commingles the ECF with other fuels, the burner may use documentation provided by the generator to calculate the as-fired heating value of the ECF and the concentration of ECF constituents.

one-time notification[58] to the RCRA and CAA regulatory authority in whose jurisdiction the exclusion is being claimed. In particular, in addition to the general facility information and an estimate of the average and maximum monthly and annual quantity of hazardous secondary materials for which an exclusion would be claimed under the proposed rule, the final rule is conditioned on the generator also providing an estimate of the annual quantity of each ECF stream, and, for each ECF stream, the maximum concentration of each ECF constituent that exceeds the comparable fuel specification in Table 1 to § 261.38. See § 261.38(b)(2)(i)(B). This additional information characterizing the ECF will assist the regulatory authorities establish monitoring and enforcement priorities.

For burners of ECF that receive the fuel from an offsite generator, the final rule also expands the information required in the one-time notification from the burner to the RCRA and CAA regulatory authority in whose jurisdiction the exclusion is being claimed. In particular, in addition to the general facility information and certification of compliance with the storage and burner conditions of the exclusion required under the proposed rule, the final rule also requires the burner to: (1) Provide an estimate of the maximum annual quantity of ECF that will be burned, and an estimate of the maximum as-fired concentrations of each ECF constituent for which the ECF exceeds the specifications for comparable fuel in Table 1 to § 261.38; and (2) provide documentation that ECF will be fired into the flame zone of the primary fuel.[59] See § 261.38(c)(5). This additional information characterizing the ECF and boiler operating conditions will assist regulatory authorities to establish monitoring and enforcement priorities.

2. Notification of Closure of a Tank or a Container Storage Unit

ECF generators and burners that store ECF in a tank or container must submit a notification to the RCRA regulatory authority when a tank or a container storage area goes out of ECF service. The notification must state the date when the tank or container storage unit is no longer used to store ECF. A tank or container storage unit is out of ECF service if it no longer is used to store ECF that is destined to be burned under the conditions of the exclusion.

C. What Are the Changes to the Consequences of Failure To Comply With a Condition of the Exclusion?

As proposed, an excluded fuel (*i.e.*, existing comparable fuel, synthesis gas fuel, and ECF) loses its exclusion if any person managing the fuel fails to comply with the conditions of the exclusion under § 261.38, and the hazardous secondary material must be managed as a hazardous waste from the point of generation. In such situations, EPA or an authorized state agency may take enforcement action under RCRA section 3008(a).

The final rule provides a "reasonable efforts" provision, however, to address generator liability when an offsite, unaffiliated burner fails to comply with a condition of the exclusion for ECF.[60] If the generator who claims the exclusion for ECF that is burned in an off-site, unaffiliated boiler[61] documents in the operating record that reasonable efforts have been made to ensure that the burner complies with the conditions of exclusion, the burner rather than the generator will be liable for discarding a hazardous waste upon a finding that the burner has not complied with a condition of exclusion. See § 261.38(d)(2).

The reasonable efforts must be based on an objective evaluation by the generator, both prior to the first shipment and periodically thereafter, that the burner would manage the ECF under the applicable conditions of § 261.38. Reasonable efforts by the generator must include, at a minimum, affirmative answers to the following questions prior to shipping the ECF to the burner, and must be repeated every three years thereafter: (1) Has a burner submitted the notification to the RCRA and CAA Directors required under § 261.38(c)(5)(i), and has the burner published the public notification of burning activity as required under § 261.38(b)(2)(ii); (2) are there any unresolved significant violations of environmental regulations at the burner facility, or any formal enforcement actions taken against the facility in the previous three years for violations of environmental regulations, and if yes, does the generator have credible evidence that the burner will nonetheless manage the ECF under the conditions of § 261.38; and (3) does the burner have the equipment and trained personnel to manage the ECF under the conditions of § 261.38.

In making these reasonable efforts, the generator may use any credible evidence available, including information obtained from the burner and information obtained from a third party. The generator must maintain for a minimum of three years documentation and certification that reasonable efforts were made for each burner facility to which ECF is shipped.

Part Four: What Are the Responses to Major Comments?

I. Scope of the ECF Exclusion

Comment: Several commenters state that EPA's decision not to address their analytical concerns about demonstrating compliance with the existing exclusion is a significant "missed opportunity" to increase the usefulness of the existing exclusion. They claim that matrix interferences and detection limit problems make it difficult or impossible to demonstrate comparability for many waste fuels. These same commenters also urge EPA to allow for blending to meet the specification limits for hydrocarbons and oxygenates.

Response: Regarding the commenters' analytic concerns, we explained at proposal that the specifications in Table 1 to § 261.38 for volatile organic compounds that were not detected in fuel oil or gasoline were based on the low levels of detection achievable for fuel oil rather than the much higher levels of detection achievable for gasoline.[62] 72 FR at 33287–88. Given that only benzene, toluene, and naphthalene were detected in our benchmark fuels—fuel oils and gasoline—we used this approach for most of the volatile organic compounds. We acknowledged this deviation from establishing the specification for undetected compounds as the highest level of detection in a benchmark fuel and explained that the levels of detection for volatile compounds in gasoline were inflated because of matrix effects. Commenters believe that we should consider the fact that many hazardous secondary materials used as a fuel may pose the same matrix effects

[58] If there are subsequent, substantive changes in the information provided in the notification, the generator must submit a revised notification to the regulatory authorities.

[59] See discussion in Part Four, Section IV.C regarding the rationale for documenting that ECF will be fired into the flame zone of the primary fuel, and guidance on acceptable documentation.

[60] A reasonable efforts provision is not provided for comparable fuel and synthesis gas fuel generators because there are minimal conditions on burners for those excluded fuels, and the generator can readily determine if the burner has complied with those conditions. Comparable fuel and syngas fuel burners must: (1) Publish a public notice of their intent to burn excluded fuel, as required by § 261.38(b)(2(ii); and (2) submit a certification to the generator, as required by § 261.38(b)(10)(i).

[61] The rule defines an unaffiliated burner as a boiler or hazardous waste combustor located at a facility that is not owned by the same parent company that generated the ECF.

[62] EPA promulgated these specifications in 1998, 63 FR 33782 (June 19, 1998).

as gasoline, such that the fuel oil-based specifications would not be reasonably achievable.

We continue to believe that it would not be appropriate to consider increasing the specifications for all volatile organic compounds and base them on the higher levels of detection in gasoline rather than fuel oil levels of detection because most of the compounds (*e.g.*, halogenated compounds) would simply not be expected to be found in fuel oil or gasoline. As a result, use of the higher detection limits would result in specification levels that could exclude hazardous secondary materials that are not comparable to fuel oil or gasoline. Rather, only certain hydrocarbons would be expected to be in these fuels. We explained at proposal that we could potentially also consider oxygenates, however, because they are within a class of compounds that are added to fuels to enhance combustion.

It appeared, however, that this potential revision would not likely result in additional hazardous secondary materials being conditionally excluded. In discussions with the chemical industry during the development of the proposed rule, they did not identify any hazardous secondary materials that cannot meet the current specifications using analytical methodologies recommended for the matrix in question, but that could qualify for exclusion if the specifications for volatile hydrocarbons and oxygenates were increased to the levels of detection for gasoline that we experienced when sampling the benchmark fuels. Although the commenters reiterate their concerns about analytic issues, they again have not identified any hazardous secondary materials that would be conditionally excluded from regulation if the specifications for volatile hydrocarbons and oxygenates were increased to the levels of detection for gasoline. We continue to be unable to identify the problem. Consequently, the final rule does not revise the specifications for volatile hydrocarbons and oxygenates.

With respect to commenters' concern regarding allowing blending to meet the specification limits for hydrocarbons and oxygenates, in discussions with the chemical industry during the development of the proposed rule, they again did not identify any hazardous secondary materials that would be conditionally excluded from regulation if blending were allowed. Consequently, we did not pursue this approach further. Even though the commenters reiterate their concerns about blending in response to the proposed rule, commenters again have not identified any hazardous secondary materials that would be excluded if blending to meet the specifications for hydrocarbons and oxygenates were allowed. Consequently, EPA is finalizing this aspect of the rule, as proposed.

II. Legal Rationale for the ECF Exclusion

A. EPA's Interpretation of the Solid Waste Disposal Act (SWDA)

1. Hazardous Waste Burned for Energy Recovery

Comment: A commenter states that EPA's claim that hazardous secondary material that is otherwise a hazardous waste can be classified as a fuel if it is burned for energy recovery under certain combustion conditions contravenes the Solid Waste Disposal Act (SWDA). The commenter believes that the text of the Act makes clear that burning a material that would otherwise qualify as a hazardous waste does not transform that material into something other than a waste, regardless of whether energy is recovered from the combustion process and regardless of the conditions under which it is burned. The text of the SWDA demonstrates that Congress was well aware that waste is burned for energy recovery, but did not intend that combusting a hazardous secondary material for energy recovery would transform that material from a regulated waste to an unregulated fuel, according to the commenter. The commenter states that § 3004(q) requires EPA to issue standards applicable to facilities that produce fuel from hazardous waste, facilities that "burn, for purposes of energy recovery, any fuel produced" from hazardous waste, and persons who distribute or market fuel produced from hazardous waste. 42 U.S.C. 6924(q)(1)(A)–(C).

Response: The final rule does not exclude from the definition of solid waste fuels produced from hazardous waste. The rule states that ECF is not a solid waste due to the combination of management practices (determined via conditions on the exclusion) and the physical identity of ECF to the fossil fuels for which it can substitute which demonstrate objectively that the hazardous secondary material can permissibly be classified as non-discarded. ECF will be stored subject to conditions similar to or identical to those which apply to commercial fuels, products, or by-products. It will be burned under conditions such that emissions will not be different from the fuel oil that could be burned in its place. It is largely physically identical to fuel oil with respect to hazardous constituent concentrations. To be ECF, the secondary material as initially generated must meet the hazardous constituent specification, as well as the other specifications, and then be subject to all other conditions. Such materials can permissibly be considered not to be discarded and hence not solid wastes.

EPA sees nothing in § 3004(q) which supports the commenter's contention that such materials must be classified as discarded. The provision only applies to hazardous wastes, so the first inquiry must necessarily be whether the material at issue—ECF—is discarded. Section 3004(q) does not itself address that question. The commenter's statement that § 3004(q) requires EPA to develop rules that regulate emissions from burning hazardous waste for energy recovery is correct, but does not address whether ECF is discarded—i.e., is solid waste in the first instance. Under section 3004 (q), a hazardous secondary material must first be a hazardous (and solid) waste before restrictions can apply to burning it for energy recovery.

2. SWDA § 3004(q)

Comment: The commenter notes that § 3004(q) further expressly provides "[f]or purposes of this subsection, the term 'hazardous waste listed under section 6921 of this title' *includes* any commercial chemical product which is listed under section 6921 of this title and which, in lieu of its original intended use, is (i) produced for use as (or as a component of) a fuel, (ii) distributed as a fuel, or (iii) burned as a fuel." 42 U.S.C. 6924(q)(1) (emphasis added). Thus, the commenter states that § 3004(q) makes clear that Congress intended any material that qualifies as hazardous waste to be regulated as hazardous waste regardless of whether it is turned into a fuel, marketed or distributed as a fuel, or burned as a fuel for energy recovery. The commenter notes that Congress emphasized this point by making clear that such materials are "waste" even if they are "commercial chemical product[s]" rather than materials that were not deliberately produced for sale or some other purpose.

Response: The reference to "commercial chemical products" refers to those hazardous secondary materials listed in § 261.33 and does not classify as wastes materials listed in that section which are themselves ordinary fuels. At the time of the 1984 amendments, EPA had in place a rule (former §§ 261.2 and 261.33) which did not classify those listed commercial chemicals burned as fuels as discarded. Congress in promulgating § 3004(q) made clear that

commercial chemical products listed in § 261.33 not produced as fuels were to be classified as hazardous wastes when burned for energy recovery. Congress made equally clear that listed commercial chemical products which were themselves ordinary fuels (for example, benzene, toluene, and xylene) were not to be classified as wastes (see § 3004(q)(1)) (reference to listed commercial chemical products includes only those products listed in § 261.33 which are not used for their original intended purpose but instead are burned as a fuel; see also H.R. Rep. 98–198, 98th Cong. 1st session 40 (same)). This has been EPA's consistent interpretation of this provision. See 61 FR at 17459 (April 19, 1996) (commercial chemical benzene, toluene, and xylene are not discarded when used as fuels since they are themselves fuels); 50 FR at 49168 n. 8 (Nov. 29, 1985) (pipeline interface from transport of toluene not a waste when burned for energy recovery, under the same principle).

This provision has been construed narrowly as applying solely to commercial chemical products used as fuels in lieu of their normal use. *AMC I*, 824 F. 2d at 1189. ECF is not such a material. See also related responses below.

Comment: The same commenter states that the legislative history of § 3004(q) confirms that fuel produced from hazardous waste must be regulated as hazardous waste. The commenter notes that, before § 3004(q) was amended, EPA had created a regulatory provision that "provided that unused commercial chemical products were solid wastes only when 'discarded'" and defined that term as "abandoned (and not recycled) by being disposed, burned, or incinerated (*but not burned for energy recovery*)." *American Mining Congress* v. *EPA*, 824 F.2d 1177, 1188–1189 (DC Cir. 1987) ("*AMC I*") (*quoting* 1983 regulatory provisions) (emphasis added). To "override" that regulatory provision, Congress added the following language to § 3004(q), according to the commenter: "for purposes of this subsection, the term 'hazardous waste listed under section 6921 of this title' *includes* any commercial chemical product which is listed under section 6921 of this title and which, in lieu of its original intended use, is (i) produced for use as (or as a component of) a fuel, (ii) distributed as a fuel, or (iii) burned as a fuel.'" 824 F.2d at 1188–1189 (*quoting* 42 U.S.C. 6924(q)(1)) (emphasis added). The commenter notes that the House Report on this amendment expressly states:

> Hazardous waste, as used in this provision, includes not only wastes identified or listed as hazardous under EPA's regulations, but also includes any commercial chemical product (and related materials) listed pursuant to 40 CFR 261.33, which is not used for its original intended purpose but instead is burned or processed as fuel. (Under current EPA regulations, burning is not deemed to be a form of discard; hence listed commercial chemical products, unlike spent materials, by products or sludges, are not deemed to be a "waste" when burned as fuel. They are only "waste" when actually discarded or intended for discard.)

824 F.2d at 1189 (*quoting* H.R. Rep. No. 198, 98th Cong., 1st Session 40).

According to the commenter, the House Report affirms that "EPA already has the authority to regulate the blending and burning of hazardous wastes for purposes of energy recovery" and explains that their objective is "to accelerate the agency's rulemaking and close a major gap in the present regulations and to set an outside deadline for the *regulation of all burning of hazardous wastes.*" H.R. Rep. No. 198, 98th Cong., 1st Session 42 (emphasis added). The House Report reiterates that the legislation "corrects a major deficiency in the present RCRA regulations by requiring EPA to exercise its existing authority over hazardous waste-derived fuels by regulating their production, distribution and use." *Id.* at 39. In summary, the House Report states:

> EPA has asserted its jurisdiction over burning and blending of hazardous waste for energy recovery * * * However, the committee still believes, as it did last year, that legislation is necessary to assure that the committee's objective in compelling EPA to develop and implement a comprehensive regulatory program over burning and blending for energy recovery are [sic] achieved, within the timetable set by the committee. The provisions of Section 6 do not grant EPA any new statutory authority; RCRA now provides EPA full authority to regulate hazardous wastes that are blended or burned for energy recovery and to regulate the owners and operators of the blending and burning facilities. *The committee wants to assure that EPA will exercise its authority over all facilities that blend or burn hazardous waste for energy recovery.*

Id. at 39 (emphasis added). The commenter states that, as the DC Circuit concluded from the amendment to § 3004 and the House Report, Congress deliberately addressed the burning of commercial chemical fuels by "deeming the offending materials to be 'discarded'" and therefore within the statutory definition of 'solid waste.'" 824 F.2d at 1189.

Response: The DC Circuit's analysis directly contradicts this comment. In *American Mining Congress* v. *EPA* ("AMC I"), 824 F.2d 1177, 1188–89, the DC Circuit, citing the same legislative history as the comment, stated that the provision making non-fuel commercial chemicals hazardous wastes was limited in scope and did not change the need to first define any other hazardous secondary materials as solid wastes. The court noted that EPA regulation in 1983 had provided that unused commercial chemical products were solid wastes only when discarded, which the Agency had defined as not including burning for energy recovery. As a result, in the 1985 RCRA amendments, "Congress addressed this problem by *deeming* the offending materials to be 'discarded' and therefore within the statutory definition of 'solid waste.' This specific measure did not, however, revamp the basic definitional section of the statute." *AMC I* at 1189.

The Court rejected, as circular, the implication in this argument, and others, that a statutory statement that certain materials are, or are not, solid or hazardous wastes, somehow, changes the definitional provisions of RCRA. See *AMC I* at 1187, 1188, 1191. With respect to 3004(q), in particular, the court stated:

> EPA argues that [section 3004(q)(1)] evinces Congressional intent to include recycled in-process materials within the definition of "solid waste." We note at the outset that this provision is likewise a subsection of [section 3004] and is therefore directed towards hazardous waste treatment facilities. The ever-present circularity problem thus looms here as well.

AMC I at 1188.

Therefore, a hazardous secondary material can be excluded from the definition of solid waste even if it is burned for energy recovery.

Comment: The same commenter states that the structure of § 3004(q) reinforces Congress' clear intent. Sections 3004(q)(2)(A) and (B) contain two exemptions from the requirements of § 3004(q)(1) pertaining to facilities that burn, produce, distribute and market hazardous waste fuel. The presence of these very narrow exemptions from the regulations clearly indicates that Congress considered exactly which fuels should be exempted from these requirements, according to the commenter. The commenter states that the Act allows only a narrow exemption for petroleum refinery wastes containing oil that are converted into petroleum coke at the same facility at which such wastes were generated, unless the resulting coke product would exceed one or more characteristics by which a substance would be identified as a hazardous waste under section 6921 of the Act. 42 U.S.C. 6924(q)(2)(A). The

commenter states that the second exemption pertains to facilities that burn *de minimis* quantities of fuel under certain specified circumstances. According to the commenter, the exclusion is also narrowly defined and requires that the Administrator determine that (1) such wastes are burned at the same facility at which such wastes are generated; (2) the waste is burned to recover useful energy as determined by the Administrator on the basis of the design and operating characteristics of the facility and the heating value and other characteristics of the waste; and (3) the waste is burned in a type of device determined by the Administrator to be designed and operated at a destruction and removal efficiency sufficient such that protection of human health and environment is assured. 42 U.S.C. 6924(q)(2)(B).

Response: The commenter again supposes that the hazardous secondary materials at issue are wastes, the issue to be determined. This type of circularity in reasoning was rejected, with respect to these very provisions, by the DC Circuit in *AMC I.* See 824 F.2d at 1187–88 and previous response. In addition, as also just explained, statutory exemptions for hazardous secondary materials that have already become wastes do not affect the basic definitional provision as to what constitutes a waste in the first place. *AMC I,* 824 F.2d at 1187–88 and n.16.

Comment: The same commenter states that the exclusion would deprive § 3004(q) of meaning and, indeed, is a transparent attempt by the Agency to circumvent § 3004 and elevate the current administration's policy goal of excusing hazardous waste combustion from pollution control requirements over Congress' decision that the burning of hazardous waste and fuel produced from hazardous waste must be regulated under the SWDA.

Response: This exclusion does not deprive § 3004(q) of practical meaning. Of the current universe of 1,943,000 tons per year[63] of hazardous waste burned for energy recovery, EPA estimates that this rule will reclassify only 118,500 tons per year (or approximately six percent) under the conditional exclusion. In any case, the issue is whether ECF must be considered discarded even though it is physically identical to, or has emissions comparable to, fossil fuels and is otherwise managed so that discard does not occur when it is burned, transported, or stored.

Comment: The same commenter states that SWDA § 3004(r) further confirms that Congress did not intend EPA to exempt hazardous waste from SWDA regulation just because it is burned for energy recovery. The commenter notes that § 3004(r) expressly prohibits "any person" from distributing or marketing "any fuel which is produced from hazardous waste identified or listed under section 6921 of this title or any fuel which otherwise contains any hazardous waste" without a label warning that such fuel "CONTAINS HAZARDOUS WASTES" and lists the hazardous wastes contained therein. 42 U.S.C. 6924(r)(1). The commenter also notes that Section 3004(r)(2) then provides a limited exception from that labeling requirement covering only "fuels produced from petroleum refining waste containing oil if—(A) such materials are generated and reinserted onsite into the refining process; (B) contaminants are removed; and (C) such refining waste containing oil is converted into petroleum-derived fuel products at a facility at which crude oil is refined into petroleum products * * *" 42 U.S.C. § 6924(r)(2). Section 3004(r)(3) then provides EPA with authority to create one further narrow exception from the labeling requirements for "fuels produced from oily materials, resulting from normal petroleum refining, production, and transportation processes, if (A) contaminants are removed and (B) such oily materials are converted along with normal process streams into petroleum-derived fuel products at a facility at which crude oil is refined into petroleum products" 42 U.S.C. 6924(r)(3). Both of the limited exceptions described in § 3004(r)(2) and (3) are applicable "unless the Administrator determines otherwise as may be necessary to protect human health and the environment." 42 U.S.C. § 6924(r)(2) and (3). The commenter believes that, by requiring the labeling of all fuel produced from hazardous waste as hazardous waste and providing only limited exceptions, which are conditioned on protection of human health and the environment, § 3004(r) further confirms that Congress intended that hazardous wastes and fuels produced from hazardous wastes do not cease to be hazardous wastes just because they are burned for energy recovery. EPA's proposed exclusion deprives § 3004(r) of meaning, and is a transparent attempt to circumvent the limitations that section imposes on the agency's discretion, according to the commenter.

Response: EPA disagrees with this comment. Although hazardous wastes used as fuels are subject to the hazardous waste regulations, the exclusion promulgated here is limited to that ECF that meets the hazardous constituent specifications, as well as the other specifications, as generated; that is, before it is a solid waste. Thus, because section 3004(r), like § 3004(q), is written in terms of wastes, requiring in the first instance that a determination be made as to whether a hazardous secondary material is a waste before the provision can apply, we disagree with the commenter. For the reasons already given, EPA has reasonably determined that ECF, in the first instance, is not discarded.

3. Impact of the Exclusion on SWDA § 3001(f)

Comment: The same commenter states that EPA's proposal also circumvents § 3001(f) and deprives it of meaning. The Agency asserts authority to declare that listed wastes are not wastes if they are burned for energy recovery under certain combustion conditions. But, § 3001(f) provides procedures for excluding listed waste from listing and thus from regulation as hazardous waste. 42 U.S.C. 6921(f). EPA thus deprives § 3001(f) of meaning with regard to wastes that are burned for energy recovery by interpreting the SWDA as allowing it to exclude such wastes from the SWDA requirements—i.e., effectively to delist them—without following the SWDA's delisting requirements.

Response: Section 3001(f) is not relevant here. It establishes a mechanism for delisting listed hazardous wastes—i.e., evaluating whether they are still hazardous. The issue here is whether the hazardous secondary materials are wastes in the first instance, which does not turn on an evaluation of hazard, but rather on whether they are discarded.

4. Factors for Use in Determining an Exclusion

Comment: The same commenter states that the statute does not provide authority for EPA to broadly exclude hazardous waste fuels from the definition of solid waste based on factors that are absent in the statute and that are contrary to its clear provisions and the intent of Congress. The commenter states that EPA does not contend that the material it purports to exclude is anything other than hazardous waste, *except to the extent* that it is burned for energy recovery. According to the commenter, the Agency's reliance on combustion with energy recovery to transform a material that is otherwise undisputedly a hazardous waste into a non-waste fuel

[63] See 70 FR at 59530.

contravenes Congress' plainly expressed intent that hazardous waste burned as fuel is still hazardous waste.

Response: As noted above, this is not EPA's position. EPA's determination that ECF is not discarded is based on factors reasonably relevant to that inquiry, namely the combination of management conditions and physical identity which provide objective assurance that ECF will not be discarded when stored, transported, or burned. With respect to burning, EPA is stating that hazardous secondary materials which are physically identical to normal fuels, except with respect to particular hydrocarbon and oxygenate constituents which actually impart fuel value to the material, need not be classified as "discarded" when they are burned under conditions where they are managed like fuel oil and the emissions from a boiler burning ECF will be no different than from a boiler burning the fuel oil that would often be used in ECF's place. With respect to storage and transport, EPA is stating that ECF will again be managed like a product (fuel oil or some other type of organic liquid) or otherwise stored to assure that discard has not occurred.

B. EPA's Use of Safe Foods and Fertilizers (SFAF) to Justify the Exclusion

1. The Term "Discarded" With Regard to Hazardous Waste Burned for Energy Recovery

Comment: A commenter states EPA's attempted reliance on *Safe Foods and Fertilizers (SFAF),* 72 FR at 33290, is misplaced. *SFAF* addresses EPA's exemption of certain "recycled materials" from SWDA requirements. 350 F.3d at 1268. The *SFAF* Court found that the term "discarded" is ambiguous with respect to these materials. The commenter states that it did not find that the term is ambiguous with respect to material that otherwise qualifies as hazardous waste, but is burned for energy recovery. Indeed, any such finding would have been directly at odds with the text and legislative history of the SWDA, as well as with binding prior precedent, according to the commenter.

Response: The comment misreads *Safe Food.* The *Safe Food* court held that materials were reasonably classified as non-wastes—not discarded—based on a set of conditions under which EPA had determined that "market participants treat the exempted materials more like valuable products than like negatively-valued wastes, managing them in ways inconsistent with discard, and that the fertilizers derived from these recycled feedstocks are chemically indistinguishable from analogous commercial products made from virgin materials." 350 F. 3d at 1269. The same principles are applicable to ECF. ECF will be managed as a valuable product due to the conditions on management which objectively assure lack of discard, and ECF is indistinguishable from fuel oil with respect to physical composition and emissions—emissions of hazardous constituents from boilers burning ECF will be the same as those from a boiler burning fuel oil.

2. Application of the Identity Principle to ECF

Comment: The same commenter states that EPA does not argue that emission-comparable fuels are "chemically indistinguishable" from analogous commercial products (ordinary fuel). EPA apparently believes that it need not show chemical identity. Instead, EPA rests its case on an assertion that it need only show that the "secondary materials are physically comparable to virgin products which would be used in their place, or which pose similar or otherwise low risks when used in the same manner as the virgin product." 72 FR 33290.

The commenter states that EPA's version of "comparable" identity in lieu of "chemically indistinguishable" identity is unreasonable and contrary to the ruling in *SFAF.* The SFAF Court required that the secondary materials be "indistinguishable in the relevant respects." *SFAF* at 1269. The Court explains that it does not believe that affirmance of the EPA's principle requires literal identity, so long as the differences are so slight as to be substantively meaningless when viewed from the "perspective based on health and environmental risks." *Id.* at 1270. The commenter states further that, in the case of the zinc fertilizers at issue in *SFAF,* EPA pointed to two risk assessments that purported to show that the secondary materials presented risks "considerably below levels that we estimate (albeit roughly) to be safe for humans and ecosystems." *Id.* citing 67 FR at 48,403/3.

Response: The "identity" principle, as described by the *Safe Food* court, refers to "contaminant limits assuring substantial chemical identity" with products made from virgin materials. 350 F.3d at 1269. Where contaminant levels in the excluded fertilizer differed substantially from those in the virgin fertilizer for which it substituted, the Court further decided it could affirm EPA's identity principle as a basis for exclusion if, based on the Agency's analysis of health and environmental risks, the differences are so slight as to be substantively meaningless. See 350 F. 3d at 1270 ("the apparent differences in the EPA's exclusion ceilings and the contaminant levels in the virgin fertilizer samples lose their significance when put in proper perspective—namely, a perspective based on health and environmental risks.").

Here, there are no "apparent differences" in environmental effect from burning ECF in place of fuel oil. We have explained at proposal, in this preamble, and in supporting documents that the conditions on burning—including in particular that the ECF constituent feedrate limits coupled with the requirement of identical concentrations of most hazardous constituents for ECF and for fuel oil—will ensure that there will be no difference in environmental effect between burning ECF or fuel oil in a boiler. Because there is no end environmental difference between burning the hazardous secondary material and the virgin fossil fuel for which it could substitute, ECF meets the "identity" test under *Safe Food.* See 350 F. 3d at 1270–71 (physical difference not considered determinative of discard where that difference does not result in adverse environmental effect).[64]

3. Need for a Risk Assessment

Comment: The same commenter states that EPA has not presented a risk assessment in the record to show that storage, transport, burning and disposal of ECF presents no risk of harm to health and the environment. EPA performed a "risk screening" pertaining only to the *burning* of ECF, but a screening is not an adequate substitute for an assessment, and the screening did not address the potential threats posed by storage, transportation and management of waste residuals.

Response: Again, the comment misreads *Safe Food.* The Court evaluated several identity scenarios which required different levels of analysis depending on the contaminant levels in the final product. See 350 F.3d at 1269–72. The type of analysis varied from chemical to chemical and the various chemicals required different

[64] Please note, however, that we have shown that the emissions from the ECF oxygenates other than acrolein would result in maximum annual average ground level concentrations that would be orders of magnitude lower than their reference air concentrations (RfCs). See discussion in Part Three, Section III.B.3 of the preamble. Although acrolein emissions may result in maximum annual average ground level concentrations that approach the RfC, acrolein emissions from burning ECF will be no greater than measured acrolein emissions from an oil-fired industrial boiler.

levels of analysis depending on how they related to the virgin materials and what kinds of assessment of risk were needed by EPA. It is instructive to review the Court's analysis to evaluate how it relates to the Agency's analysis of ECF.

As in the comment to this rule, the petitioners in *Safe Food* objected to the "factual predicate" of EPA's identity principle because the petitioners argued that the levels EPA picked were not "identical" to what was found in products made from virgin materials. 350 F.3d at 1269. Of particular difficulty was the situation in which, for some cases, contaminant levels in the recycled products would appear to be "sometimes considerably higher" than in products made from virgin materials. *Id.* In general, the court determined that it could affirm EPA's determination if, based on the Agency's analysis of health and environmental risks, the differences are so slight as to be substantively meaningless and found that "the apparent differences in the EPA's exclusion ceilings and the contaminant levels in the virgin fertilizer samples lose their significance when put in proper perspective—namely, a perspective based on health and environmental risks." 350 F.3d at 1270.

For four contaminants—lead, arsenic, mercury and cadmium—EPA picked levels in the recycled fertilizer product that were related to the "concentration levels found in virgin materials." 350 F.3d at 1271; see 350 F.3d at 1270 (Table titled "Comparison of EPA Limit and Virgin Commercial Samples * * *"). In addition, the court relied on risk assessments performed by industry to determine that the levels "do not endanger human health or the environment until they are present in concentrations between 20 and 372 times" the levels EPA allowed in its regulations. 350 F.3d at 1270. In response to the petitioners' argument that the industry studies should be given no weight, the court deferred to EPA's technical judgment that, even though the studies could be more rigorous, they were "a good enough benchmark for * * * levels that were tiny fractions of the risk thresholds." *Id.* Accordingly, the court found that the levels of these contaminants "did not undermine the EPA's application of its identity principle." *Id.*

For dioxin, EPA needed a more rigorous analysis. In that case, EPA did not set the limit on concentration levels found in virgin materials, but instead set a limit of 8 parts per trillion (ppt), "similar to the average background dioxin concentration in soil." Even though commercial fertilizers had levels much lower at 1 ppt, basic risk findings from prior risk assessments showed that dioxin did not pose a risk at background levels and no comments on the rule challenged the basic risk determinations. The court, therefore, found that EPA was reasonable that the 8 ppt standard was "'identical' enough" to support a finding that the excluded fertilizers were products rather than wastes. 350 F.3d at 1271.

The court made a different decision for chromium and remanded the decision to the Agency to "clarify" the chromium level. 350 F.3d at 1271–72. The industry study did not show the high risk thresholds for chromium as it did for the other contaminants. Also, EPA did not report such a risk threshold in the final rule and the court found that the results of an EPA risk study on chromium "are not easily translatable by lay judges into a form comparable with the proposed exclusion ceiling." 350 F.3d at 1271. Moreover, the court found "particularly striking" the difference between the chromium level for fertilizers made from recycled hazardous secondary materials and for chromium in fertilizer made from virgin materials. EPA set a level at 21.3 parts per million (ppm) for recycled fertilizer. However, of twenty virgin fertilizer samples reported, six reported chromium—one of 8 ppm and five less than 1 ppm. Thus, EPA's level was double the highest sample, ten times the sample mean, and twenty times the sample median, with nothing the court could understand which indicated that these differences were trivial from a health and environment perspective.

In summary, for none of the contaminants at issue was EPA required to perform a full "risk assessment" to determine that there is "no risk of harm to human health or the environment," as the commenter would have it. Instead, the Court found it reasonable for EPA to rely on information commensurate with the relationship of products made with virgin materials to products made with non-discarded hazardous secondary materials. In some cases (dioxin and chromium), EPA needed a more rigorous analysis. 350 F.3d at 1271. For other materials (heavy metals), EPA's analysis was less rigorous and nonetheless appropriate.

EPA's analysis for ECF falls well within the parameters evaluated by the court in *Safe Food*. As noted in the response to the previous comment, there is no end environmental difference between the activities of burning for energy recovery of fuel oil and ECF. This rule thus does not pose the issues the Safe Food court faced regarding dioxin or chromium levels, although it should be noted that EPA's approach here resulting in no increase of emissions of ECF constituents from a boiler burning ECF compared to that boiler burning fuel oil has similarities with the approach to dioxin upheld in *Safe Food* where the specification was established to assure no increases in ambient levels of that contaminant from use of the excluded fertilizer. There thus is no need to justify differing environmental outcomes from burning by showing *de minimis* risk.

We have also explained that the conditions on storage of ECF, although based substantially on controls applicable to analogous products, are enhanced to assure that discard is not occurring through conditions relating to primary and secondary containment (*e.g.*, secondary containment and leak detection conditions for tanks; containment system conditions for containers). Thus, the storage conditions under the exclusion are equivalent to the storage requirements currently applicable to ECF currently classified as hazardous waste or to analogous fossil fuels or product or by-product organic liquids. Finally, with respect to the hazards associated with the transportation of ECF, we note that ECF is subject to DOT's requirements for hazardous materials. Thus, ECF is subject to the same packaging, labeling, marking, and placarding requirements as hazardous waste, and each ECF shipment must be accompanied by a DOT hazardous material shipping paper. These controls assure that ECF's market participation when stored and transported will be as a valued commodity, without discard.

4. Applicability of the Market—Participation Theory to ECF

Comment: The same commenter states that, although the *SFAF* test clearly comprises two parts, EPA fails to address the second part of the test, which is that "market participants must treat the materials more like valuable products then like negatively-valued waste." Presently, the record shows that hazardous wastes that can be burned as fuel, which are not eligible for the existing comparable fuels exclusion, are largely shipped to hazardous waste incinerators and cement kilns for incineration. Generators of such hazardous waste are required to store and transport such waste under stringent subtitle C regulation. The wastes are presently not treated like valuable products, *i.e.*, as feedstock for commercial products or valuable fuel for energy production. In the case at issue in *SFAF*, the materials were "feedstocks in a non-discarded final

product" (the zinc fertilizer). Here, the hazardous waste is not a feedstock in a non-discarded final product. EPA must demonstrate why it believes that ECF meets the market participation test set forth in *SFAF*.

Response: The commenter misreads EPA's determination with respect to the exclusion in this rule. EPA is finding that when ECF is stored, transported and burned under the conditions set forth in the rule—*i.e.*, when ECF participates in the market—market participants will manage ECF as a valuable commodity, not as a waste. They will do so because: (1) Pursuant to the conditions set out for the exclusion, storage of the material will include storage safeguards to which fuel oil and product organic liquids are subject, plus additional conditions to assure containment; (2) the conditions on burning assure that burning will occur under the same optimized combustion conditions as product fuel oil when carefully combusted in industrial boilers; (3) the feedrate conditions assure that emissions of ECF constituents from a boiler burning ECF will be comparable to (*i.e.*, the same as) emissions from a boiler burning fuel oil; and (4) the physical composition conditions assure that the remaining hazardous constituents are present in no greater concentrations than in fuel oil. Thus, it is reasonable for EPA to determine that the conditions of the rule provide an objective assurance of ECF not being discarded in the first instance and, ultimately, used as a valuable fuel commodity by market participants under the same conditions and with the same emissions as valuable fuel commodities, *e.g.*, fuel oil.

"Market participation" and "identity" are also more closely related than the commenter would have it. Physical identity of a hazardous secondary material with a commercial product for which it substitutes is itself an aspect of market participation, assuring that the hazardous secondary material will be managed as a valuable commodity—the commodity to which it is identical, and not be discarded. Cf. *Safe Foods*, 350 F.3d at 1269 ("[n]obody questions that virgin fertilizers and feedstocks are products rather than wastes. Once one accepts that premise, it seems eminently reasonable to treat materials that are indistinguishable in the relevant respects as products as well"). Thus, the exclusion for the zinc fertilizers at issue in *Safe Foods* contains no conditions on market participation beyond meeting the hazardous constituent concentration specifications, plus sampling of the fertilizers to document that the fertilizers meet those specification levels, whereas more market participation conditions attached to the hazardous secondary materials used to produce the excluded fertilizers. See 40 CFR section 261.4(a)(21) and (20). In any event, evaluated separately, EPA believes that the rule is entirely consistent with the market participation and identity principles set out in *Safe Foods*.

Finally, in response to the commenter's statement that hazardous waste fuels that are currently sent to hazardous waste incinerators and cement kilns are burned for incineration, we note that these materials are burned for energy recovery in lieu of fossil fuels. Cement kilns burn hazardous waste fuels in lieu of coal to provide the heat to calcine limestone to produce clinker product, and hazardous waste incinerators burn hazardous waste fuels in lieu of fuel oil or natural gas to provide heat to combust wastes with little or no heating value.

III. Conditions for Storage of ECF

A. Storage in Containers

Comment: In response to a request for comment at proposal as to whether generators would be likely to store ECF in containers, several commenters state that storage in containers should be allowed to enable smaller volume ECF generators to use the exclusion. Other commenters oppose allowing storage in containers. One commenter states that storage of ECF in drums may easily allow indiscriminate mixing of other wastes due to the lack of adequate controls. Another commenter states that storage of ECF in containers should not be allowed because, absent hazardous waste standards and permit requirements, container storage would pose a hazard to the public.

Response: We agree with the commenters that support allowing storage of ECF in containers. Therefore, the final rule allows storage of ECF in containers under conditions that are similar to the conditions for storage in tanks. As discussed below, the conditions for ECF container storage are adopted from the provisions applicable to commercial products analogous to ECF or are equivalent to the hazardous waste container requirements under Subparts CC and BB of Part 264 (which controls are based on those for containers storing organic liquid products or byproducts).

Regarding the commenter's concern for the potential for indiscriminate mixing of waste with ECF, if ECF does not meet the specifications under § 261.38(a)(2), the material loses the exclusion and must be managed as a hazardous waste from the point of generation. In addition, ECF must meet the specifications for exclusion as-generated; blending, dilution, or other treatment is not allowed to meet the specifications.

The discharge prevention conditions for container storage are adopted from the SPCC requirements and the emergency procedure provisions are adopted from the hazardous waste storage requirements for containers and are identical to those adopted for ECF tanks. This is appropriate because container storage can pose the same types of hazards as tank storage.

The conditions to provide containment for container storage are adopted from the requirements for used oil stored at burner facilities,[65] coupled with the controls adopted from the hazardous waste container requirements to address the additional hazards that ECF container storage can pose. We note that we mentioned at proposal that if the final rule allowed container storage, we would subject containers to conditions similar to those that apply to hazardous waste containers. See 72 FR at 33301. We adopt the containment conditions for containers from the containment requirements for hazardous waste container storage units under § 264.173. This is appropriate because: (1) These requirements include the requirements for used oil container storage, as well as provisions that address the hazards that ECF containers can pose; and (2) ECF container storage units are currently subject to those containment requirements, which address hazards that remain after the ECF exclusion is claimed.

To establish conditions to control fugitive air emissions from containers and leaks from equipment that contains or contacts ECF at the container storage unit, our principles are as follows. First, we adopt the OLD NESHAP controls that apply to containers. This is appropriate for the reasons discussed at proposal in the context of adopting the OLD NESHAP controls for tanks. See 72 FR 33305. Second, for containers that are not subject to the OLD NESHAP, we adopt the NESHAP emission standards for containers under Subpart PP, Part 63. This is appropriate because the Agency developed these standards for storage of organic liquid feedstock, products, and by-products by manufacturing facilities, and ECF is an organic liquid product. Third, to determine the applicability of the Level

[65] See § 279.64(b) and (c) requiring that containers be in good condition and stored in an area with a containment system comprised of dikes, berms, or walls surrounding a floor, which are impervious to used oil.

1 or Level 2 controls under Subpart PP, we adopt the container size and other criteria (*i.e.*, whether the ECF meets the definition of a "light liquid") that the Agency established for hazardous waste containers under § 264.1086(b)(1). These hazardous waste container applicability criteria establish the applicability of Level 1 or Level 2 controls under § 264.1086(c) and (d) which are equivalent to the Level 1 or Level 2 controls under Subpart PP. It is reasonable to adopt the hazardous waste container applicability criteria because ECF containers pose air emission hazards that remain after the ECF exclusion is claimed. Finally, we do not adopt provisions under Subpart PP that are not relevant, such as the applicability of the subpart to other Part 63 subparts, enforcement of the subpart under the CAA, and provisions for site-specific waivers or approval of alternative provisions.

By applying these principles, we establish the following air emission conditions for containers.

Containers Subject to the OLD NESHAP. We adopt the fugitive air emission conditions for container storage units from the OLD NESHAP. See § 261.38(c)(1)(vi). Although the OLD NESHAP controls air emissions during distribution operations, it does not address air emissions from other aspects of container management, such as storage and unloading liquids from containers. In fact, the OLD NESHAP is applicable to ECF containers only when ECF that meets the adopted definition of organic liquid[66] is being loaded into a container with a capacity greater than 55 gallons at a transfer rack at a new facility where the annual volume of ECF is 800,000 gallons or more. See Items 9 and 10 in Table 2 to adopted Subpart EEEE which subject such containers generally to Level 3 control under Subpart PP, Part 63. Consequently, we adopt other controls as conditions for containers that are not subject to the OLD NESHAP, as discussed below.

We also adopt the OLD NESHAP provisions that control leaks from equipment (*e.g.*, pumps, valves) that contain or contact ECF in a storage unit that has a container subject to control under Items 9 or 10 in Table 2 to adopted Subpart EEEE. These provisions under adopted § 63.2346(c) require compliance with the applicable requirements of the following NESHAP subparts: Subpart TT (Level 1 control), or Subpart UU (Level 2 control), or Subpart H.

Containers That Are Not Subject to the OLD NESHAP. To ensure that air emissions from other ECF containers are controlled, we adopt in this final rule the applicability criteria for hazardous waste containers under § 264.1086(b)(1) to determine the applicability of the Level 1 or Level 2 national emission controls under Subpart PP, Part 63. Using the hazardous waste container applicability criteria for ECF containers is consistent with our principle of ensuring that controls through conditions are provided for the storage hazards that remain after the ECF exclusion is claimed, thus assuring safe handling commensurate with ECF's classification as a product and ensuring that it does not become part of the waste disposal problem. See *AMC II,* 907 F.2d at 1186. The national emission standards for Level 1 and Level 2 controls under Subpart PP are appropriate because they apply to containers storing raw materials, products, and by-products at manufacturing facilities and are equivalent to the Level 1 and Level 2 controls required for hazardous waste containers under § 264.1086(c) and (d).

Under these adopted provisions, a container having a design capacity greater than 0.1 cubic meters (26 gallons) can comply with the conditions if it: (1) Meets the applicable DOT regulations on packaging hazardous materials for transportation; and (2) is kept closed unless ECF is being added or removed from the container.

To control leaks from equipment that contains or contacts ECF at container storage units, we adopt the equipment leak provisions from the OLD NESHAP. The OLD NESHAP subjects containers to the Part 63 NESHAP for equipment leaks if the facility has a tank or container subject to air emission controls under Table 2 to Subpart EEEE: Subpart TT (Level 1 control), or Subpart UU (Level 2 control), or Subpart H. These are alternative controls. Owners and operators can elect to comply with a level of control among these alternatives. For ECF equipment leaks for equipment not subject to OLD, we adopt the same NESHAP controls required under OLD, and use the hazardous waste equipment leak applicability criterion under § 264.1050(b) to determine when those controls, as conditions, apply.[67] As a practical matter, the controls will apply to all equipment that contains or contacts ECF in a container storage unit. This is because § 264.1050(b) subjects equipment that contains or contacts hazardous waste with an organic concentration of at least 10 percent by weight to the equipment leak requirements. Given that ECF will invariably have an organic concentration of at least 10 percent, the adopted equipment leak controls apply to all equipment that contains or contacts ECF in a container storage unit.

In adopting the NESHAP equipment leak controls for equipment that contains or contacts ECF, we are omitting those provisions that are not relevant (*e.g.*, applicability provisions referencing other Part 63 subparts; CAA enforcement). Consequently, we are adopting the following alternative conditions: (1) Subpart TT, Part 63, (Level 1 control), except for § 63.1000; (2) Subpart UU (Level 2 control), except for § 63.1019; and (3) Subpart H, except for §§ 63.160, 63.162(b) and (e), and 63.183.

B. Alternative Hazardous Waste Storage Conditions

We requested comment at proposal on whether the conditions to control air emissions from tank systems would be easier to understand and implement if we simply adopted the hazardous waste provisions under Part 264, Subparts AA, BB, and CC rather than adopting controls under the OLD NESHAP.

Comment: Several commenters suggest that the Agency adopt the hazardous waste storage requirements for ECF storage units in lieu of the collection of SPCC, OLD NESHAP, and hazardous waste storage controls that we proposed to avoid the complications created by adapting and then adopting those controls for ECF.[68]

Response: While we acknowledge that the adapted and adopted controls on ECF storage are complicated, and that hazardous waste generators and burners may not be familiar with them, we believe it is appropriate to retain those conditions. Those conditions are our best effort to ensure that ECF is subject (via conditions) to controls for analogous products and that address hazards that remain after the ECF exclusion is claimed, assuring that in its management, ECF will not become "part of the waste disposal problem" (*AMC I,*

[66] The "adopted definition of organic liquid" means ECF that contains 5 percent or greater by weight of the RCRA oxygenates, as well as organic HAP listed in Table 1 to Subpart EEEE, and that has an annual average true vapor pressure of 0.1 psia or greater. See § 261.38(c)(1)(vi)(B)(*4*).

[67] As discussed elsewhere in the preamble, it is reasonable to use the hazardous waste applicability criteria to establish applicability of the equipment leak controls for ECF equipment given our principle of controlling hazards that remain after the ECF exclusion is claimed.

[68] We note that the collection of adopted controls is even more complicated in the final rule given the need to adopt controls for containers, and the need to adopt air emission controls for tanks and containers that would not be subject to the adopted provisions of the OLD NESHAP. See discussion below in the preamble in Part Four, Section III.C.

824 F. 2d at 1186), and so is not discarded.

Nonetheless, we understand commenters' concerns and have, therefore, provided alternative storage conditions that are adopted solely from the hazardous waste storage requirements under Part 264, Subparts I (containers), J (tanks), AA (closed vent systems and control devices), BB (equipment leaks), and CC (air emissions from tanks and containers).[69] These conditions are coupled with the other general requirements that apply to hazardous waste storage units to ensure containment and protection of human health and the environment, and which address security; inspections; personnel training; ignitable, reactive, and incompatible material; preparedness and prevention; and a contingency plan and emergency procedures. See § 261.38(e). ECF storage units are currently subject to these conditions and the conditions parallel the suite of conditions adopted from the SPCC provisions, the OLD NESHAP, and the hazardous waste provisions that are the base storage conditions provided under § 261.38(c)(1)(ii–viii).

C. Air Emission Controls for Tanks

Comment: One commenter states that the air emission controls for tanks adopted from the OLD NESHAP under Subpart EEEE, Part 63, are not equivalent to the hazardous waste tank controls that currently apply to ECF and could allow an increase in hazardous air emissions. The commenter notes that tanks not meeting the adopted OLD criteria for design capacity and ECF vapor pressure would not be subject to the OLD controls, while those tanks are currently subject to the hazardous waste tank air emission controls. In addition, the commenter notes that the OLD vapor pressure criterion for organic HAP and RCRA oxygenates in ECF for determining applicability of air emission controls is based on the "annual average true vapor pressure," while the vapor pressure criterion for applicability of the hazardous waste tank air emission controls is based on the "maximum organic vapor pressure." The commenter believes that the OLD controls may not be adequately protective and, therefore, the hazardous waste tank controls should be adopted for ECF tanks.

Response: We continue to believe that, because ECF is a product, it should be subject to the same controls that apply to analogous products. This provides an objective indication that the materials are not discarded. Consequently, it is reasonable to adopt conditions for storage of ECF from the OLD NESHAP, as discussed at proposal. See 72 FR at 33305.

Nonetheless, as discussed previously in this preamble and at proposal, the OLD NESHAP does not address hazards from the storage of ECF that remain after the exclusion is claimed because certain types of ECF storage activities would not be subject to that rule. Consequently, we proposed to adopt provisions of the OLD controls so that those controls address all ECF tanks. See 72 FR at 33306.

In light of the commenter's concerns, we have reviewed the proposed tank air emission controls and conclude that: (1) We inadvertently proposed to expand the applicability of the adopted OLD controls to two tank capacity and ECF vapor pressure scenarios that would have established controls that are more stringent than the hazardous waste tank controls for those scenarios; (2) there are additional tank capacity and ECF vapor pressure scenarios where ECF that meets the adopted definition of an organic liquid would not be subject to the adopted OLD controls, but should be to assure that all ECF is subject to the controls for product organic liquids, or controls comparable thereto; (3) we inadvertently did not propose to adopt air emission controls for tanks that store ECF that does not meet the adopted definition of organic liquid and these tanks need to be subject (via condition) to product organic liquid controls, or controls comparable thereto, when all other tanks storing ECF are; and (4) it is reasonable to adopt the OLD definition of annual average vapor pressure rather than the hazardous waste definition of maximum organic vapor pressure. We discuss these issues below.

Proposal To Expand OLD Controls to Additional Tank Capacity and ECF Vapor Pressure Situations. We explained at proposal that the OLD NESHAP would not require controls for two tank size/vapor pressure scenarios: (1) Existing, reconstructed, or new ECF tanks with a capacity less than 5,000 gallons handling ECF with a RCRA oxygenate and organic HAP vapor pressure equal to or greater than 76.6 kPa; and (2) existing ECF tanks with a capacity in the range of 5,000 gallons to 50,000 gallons handling ECF with a RCRA oxygenate and organic HAP vapor pressure in the range of 5.2 kPa (0.75 psia) to 76.6 kPa. (11.1 psia).[70] See 72 FR at 33306–07. Consequently, we proposed to adopt the OLD NESHAP controls for those two tank size/vapor pressure scenarios. In retrospect, however, we do not believe it is appropriate to expand OLD control to those tank capacity/vapor pressure scenarios because the adopted OLD controls would be more stringent than the hazardous waste controls that currently apply to the ECF tank. See discussion below where we explain how the final rule provides appropriate controls via conditions for those two scenarios.

Air Emission Conditions for Tanks and Containers that Are Not Subject to Conditions Adopted from Part 63, Subpart EEEE. We have determined since proposal that, in addition to the two scenarios discussed above, there are other ECF tanks that would not be subject to the adopted OLD controls even though they are currently subject to hazardous waste tank controls: (1) Tanks with a design capacity in the range of 5,000 to 50,000 gallons when the ECF meets the adopted definition of organic liquid and has a vapor pressure in the range of 0.1 psia to 0.75 psia; and (2) all tanks storing ECF that does not meet the adopted definition of organic liquid (*i.e.*, ECF that contains less than five percent by weight of the RCRA oxygenates, as well as organic HAP, or has an annual average vapor pressure less than 0.1 psia).

The final rule establishes conditions to control air emissions for these ECF tank scenarios—ECF tanks that are not subject to the adopted OLD controls, but that are currently subject to the hazardous waste tank air emission controls. See § 261.38(c)(1)(vii). Using the hazardous waste tank applicability criteria for tank capacity and ECF vapor pressure under § 264.1084(b)(1) is consistent with our primary principle stated at proposal for establishing tank air emission controls: Emissions should be controlled to a level comparable to levels currently required given that air emissions from storage and handling of ECF can pose the same hazards as storage and handling of the hazardous waste. See 72 FR at 33306.

We therefore use the hazardous waste tank capacity/vapor pressure applicability criteria that designate whether Level 1 or Level 2 emissions control apply to establish conditions for ECF tanks that provide at least equivalent control. Rather than adopting the hazardous waste tank controls

[69] As noted, the Subpart AA, BB, and CC controls are themselves adapted from controls for product and byproduct organic liquids, and so are analogous to controls used for product container storage.

[70] Please note that, as discussed in this section, we have since determined that there are other tank capacity/vapor pressure scenarios for which OLD would not apply, and OLD would not apply to tanks storing ECF where ECF does not meet the adopted definition of organic liquid.

verbatim, however, we adopt a suite of alternative NESHAP controls that are equivalent to the hazardous waste tank controls. This is appropriate because ECF is a product and these controls apply to tanks storing organic liquid feedstocks, products, and by-products at manufacturing facilities.

To establish a suite of alternative controls for ECF tanks that are equivalent to the hazardous waste tank Level 1 controls, we adopt: (1) The Level 1 national emission standards for tank air emissions provided by Subpart OO, Part 63; (2) the OLD controls designated under Item 1 in Table 2 to Subpart EEEE,[71] Part 63; and (3) three additional alternative control measures provided for (Level 2) control for hazardous waste tanks-venting to a control device, a pressure tank, and a tank located in an enclosure that is vented to a combustion control device.[72]

To establish a suite of alternative controls for ECF tanks that are equivalent to the hazardous waste tank Level 2 controls, we adopt: (1) The OLD controls designated under Item 1 in Table 2 to Subpart EEEE, Part 63; and (2) the three additional alternative control measures provided for (Level 2) control for hazardous waste tanks-venting to a control device, a pressure tank, and a tank located in an enclosure that is vented to a combustion control device.

Finally, the tank air emission controls include conditions to control air emissions from leaks from equipment that contains or contacts ECF. We adopt the same equipment leak conditions for tank storage units that we adopted for container storage units, and for the same reasons: (1) Subpart TT, Part 63, (Level 1 control), except for § 63.1000; or (2)Subpart UU (Level 2 control), except for § 63.1019; or (3) Subpart H, except for §§ 63.160, 63.162(b) and (e), and 63.183. See discussion in Part Four, Section III.A above.

Vapor Pressure Criterion. It is reasonable to adopt the OLD definition of annual average vapor rather than the hazardous waste definition of maximum organic vapor pressure to establish the applicability of the adopted OLD controls. The OLD controls are equally or more stringent than the hazardous waste controls for all tank capacity/vapor pressure scenarios that are applicable to ECF tanks. For ECF tanks that are not subject to the adopted OLD controls, the hazardous waste tank vapor pressure definition under § 264.1083(c) applies when determining the applicability of the adopted controls as discussed above, and those adopted controls are at least equivalent to the hazardous waste tank controls. Consequently, adopting the OLD definition of vapor pressure will still ensure that tank air emission controls are equivalent to hazardous waste tank air emission controls.

[71] These OLD controls are equivalent to Level 2 hazardous waste tank controls (*e.g.*, alternative controls include an internal or external floating roof).

[72] Although our preference is to adopt NESHAP controls for ECF tanks, it is reasonable to adopt hazardous waste tank controls as alternatives to the adopted NESHAP controls.

D. Definitions of Tank Cars and Tank Trucks

Comment: A commenter states that the definition of tank cars and tank trucks in the proposed rule is unclear.

Response: The final rule does not use the terms tank car or tank truck. These terms are used, however, in the adopted SPCC requirements. Although the SPCC requirements do not explicitly define these terms, a tank car is a container used to transport ECF by rail, and a tank truck is a container used to transport ECF by roadway.

E. Adequacy of the ECF Storage Conditions

Comment: Several commenters believe that ECF storage poses a greater hazard than fuel oil, the product that EPA states is most analogous to ECF. The commenters believe that the hazardous waste storage controls are needed to address the hazards posed by storage of ECF.

Response: We stated at proposal that fuel oil is the most analogous product to ECF and, thus, the ECF exclusion would typically be conditioned on meeting storage controls that are applicable to fuel oil as a means of assuring lack of discard. We also stated, however, that additional controls are necessary to minimize the potential for releases to the environment (*i.e.*, discard). See 72 FR at 33301. The SPCC controls, coupled with the other controls (*e.g.*, secondary containment, preparedness and prevention, emergency procedures, air emissions) are equivalent to the controls that apply to hazardous waste storage units. Consequently, the storage of ECF will pose no greater hazard than storage of hazardous waste based upon the conditions drawn from the requirements for storage of organic liquids and hazardous wastes.

F. Management of Residues in Tanks

Comment: A commenter states that the management of residues in tanks and containers during operation is not addressed. The commenter believes that the final rule should be clear that solids and other wastes generated as a result of managing ECF are hazardous waste irrespective of when they are generated.

Response: As proposed, the final rule states that liquid and accumulated solid residues that remain in a container or tank system for more than 90 days after the container or tank system ceases to be operated for storage or transport of the excluded fuel product (*i.e.*, ECF or comparable fuel) are subject to regulation as hazardous waste if identified or listed as a hazardous waste. In addition, liquid and accumulated solid residues that are removed from a container or tank system after the container or tank system ceases to be operated for storage or transport of the excluded fuel product are solid wastes subject to regulation as hazardous waste if the waste exhibits a characteristic of hazardous waste under §§ 261.21 through 261.24 or if the fuel were otherwise listed under §§ 261.31 through 261.33 when the exclusion was claimed. See § 261.38(b)(13)(i) and (ii).

We inadvertently did not address the situation raised by the commenter, however; that is, where residues may be removed from an ECF container or tank that remains in ECF service, and where the ECF no longer meets the specification for the exclusion. We agree with the commenter that such hazardous secondary materials should be managed as a hazardous waste if it exhibits a characteristic of hazardous waste under §§ 261.21 through 261.24 or if the hazardous secondary material would otherwise have been listed as a hazardous waste when the exclusion was claimed. See § 261.38(b)(13)(iii).

G. Closure Conditions for ECF Tanks

Comment: Commenters state that EPA should apply the closure requirements to ECF storage units. They argue that EPA appears to disregard the fact that facilities may store substantial amounts of ECF in these tank systems for significant periods of time. Acknowledging that spilling, seepage and releases routinely occur during waste storage, the closure requirements provide assurance that the party responsible for the management of the ECF performs a comprehensive cleanup in a timely manner when the waste storage unit is no longer used to store such material. EPA's failure to impose closure requirements violates SWDA section 3004(a) that requires EPA to impose such performance standards on facilities that store, treat or dispose of hazardous waste "as may be necessary to protect human health or the environment." 42 U.S.C. 6924(a). In addition, the failure of EPA to impose

such requirements contravenes the statutory mandates of SWDA section 1003. 42 U.S.C. 6902. Further, commenters state that there is no reason to leave the decontamination and decommissioning of a unit that stored hazardous waste to the discretion of the owner/operator when RCRA regulations provide explicit direction on how to close such units safely. EPA provides nothing in the record that indicates that a "regulatory authority," presumably the state solid waste agency where the owner/operator is located, will have any expertise "to ensure that the unit is cleaned properly." *Id.*

The commenters also state that facilities may avoid liability for environmental damage discovered after the facilities have closed. Without CERCLA liability, state and federal taxpayers will pay the financial costs to clean up these facilities, while people in communities across the nation pay the human health and environmental cost associated with the contamination. Because the proposal could significantly reduce or even altogether eliminate facility and particularly generator liability at some Superfund sites, taxpayers will be required, through EPA-funded actions, to pay for cleanups. The commenters suggest that preparation of a closure procedure should be required and submitted to the local agency at least 90 days in advance of initiating closure activities. This plan would also include provisions to sample and potentially remediate soils in the area of the storage tanks and loading and/or unloading areas. The Agency can then have an opportunity to review and modify the provisions as necessary, similar to the authority for the Director to require modifications to the SPCC Plan if it is found to be deficient.

Response: We explained at proposal that closure of an ECF tank would be addressed the same as closure of any other product tank that goes out of service.[73] The tank system would not be required to undergo closure according to the RCRA hazardous waste regulations unless liquids or accumulated solids were not cleaned from the tank system within 90 days of cessation of operation as an ECF storage unit. See 72 FR at 33308. Liquids and accumulated solids removed from a tank system that ceases to be operated for storage/transport of ECF product are solid wastes. They are hazardous waste if they exhibit a characteristic of hazardous waste or if the ECF were otherwise listed. See § 261.38(b)(13).

[73] We note also that analogous products are not subject to closure requirements.

In retrospect, however, and considering the comments on this issue, we believe it is reasonable to require generators and burners to notify the RCRA regulatory authority when an ECF tank or an ECF container storage unit goes out of service. Therefore, the final rule includes this provision as a condition of the exclusion. See § 261.38(f). The notification must state the date when the tank system or container storage unit is no longer used to store ECF. This information will enable the regulatory authority to know which units are operating under the conditional exclusion and to enforce the hazardous waste closure provisions if liquids or accumulated solids are not removed from the ECF tank system or ECF container storage unit within 90 days of cessation of operation as an ECF storage unit.

H. Financial Assurance for ECF Tanks

Comment: Several commenters note that EPA fails to impose financial assurance requirements on facilities that store and burn ECF. Commenters argue that given the increased threat to health and the environment posed by the relaxed restrictions on the storage and burning of ECF, EPA's failure to require that such facilities maintain financial assurance to address potential remediation, without any justification in the record, is arbitrary, capricious and in violation of law. Although ECF that is not managed in compliance with the conditions would lose the exclusion and must be managed as hazardous waste, commenters state that there is no provision for ensuring that generators or burners are financially prepared to dispose of accumulated ECF in this event. Commenters believe that generators and burners should be required to provide adequate financial assurance, similar to the existing RCRA mechanisms, to manage ECF. Waiting until the ECF is mismanaged and only then imposing the applicable RCRA hazardous waste regulations, including the financial assurance regulations, may not result in adequate funds being available in the event that mismanagement and abandonment occurs, according to the commenters. Considering EPA's current focus on ensuring adequate financial assurance for hazardous waste facilities, commenters believe that the lack of coverage proposed for ECF units seems arbitrary and contrary to common sense. In fact, commenters note that financial assurance has been, and continues to be, an important part of EPA's verification that finances are available to close hazardous waste storage tanks, and not leaving the problem for local and state governments.

Under the proposed ECF exclusion, industrial boiler facilities could manage potentially large volumes of ECF with no financial assurance for proper closure of the storage units and no insurance for third-party harm. Commenters note that EPA also proposed to revise the definition of solid waste (DSW) for recyclable materials, and there EPA recognized the necessity of requiring financial assurance for reclamation facilities. Commenters believe that, if facilities that conduct solvent distillation, metals recovery, and similar recycling are required to have financial assurance, then boiler facilities that recycle hazardous waste by burning ECF fuels must meet the same condition. Commenters also note that EPA's Damage Case Study in the DSW rulemaking includes numerous sites where organic hazardous wastes similar to ECF were mismanaged causing environmental harm and cleanup costs. EPA's rationale for financial assurance in the DSW rulemaking applies equally and with full force to the ECF proposal, according to commenters. Commenters state that there is no rational basis for including financial assurance in one rule on recycling and not in this rule.

Response: In response to the commenter's view that financial assurance provisions should be required for ECF storage units given that the Agency proposed financial assurance provisions for reclamation facilities under the proposed Definition of Solid Waste (72 FR 14172), we note that the proposed financial responsibility conditions in that proposed rule only apply to hazardous secondary materials that are being reclaimed. Such materials are not usable in their current form and must be reclaimed before they can be a useful product. The financial assurance condition in the Definition of Solid Waste proposal would safeguard against the abandonment or out-of-control accumulation of spent materials awaiting reclamation that led to certain of the damage incidents involving waste reclamation. Those situations are not present for ECF. That is, the hazardous secondary materials must meet objective product specifications as-generated, and will be stored and otherwise managed as is fossil fuel or other organic liquids. EPA thus does not believe that the financial assurance provisions are appropriate to assure legitimate recycling and management of ECF, as is the case for other products.

I. Waiver of RCRA Closure Requirements for Tanks Storing Hazardous Wastes That Are Subsequently Excluded ECF

Comment: A commenter recommends that waiver of the RCRA closure requirements for tanks used only to store hazardous wastes that are subsequently excluded as comparable fuel under § 261.38(b)(14) should include consideration of whether there is evidence of a release from the tank system to surrounding soils and/or groundwater and whether the tank system is subject to corrective action due to prior releases before waiving the closure requirements.

Response: The obligation under § 264.101 to address facility-wide corrective action at permitted facilities, which attaches at permit issuance, is not affected by this final rule, and remains in effect until corrective action at the facility is completed.[74] Owners and operators of permitted and interim status facilities with corrective action obligations should refer to the Agency's February 25, 2003, guidance entitled, "Final Guidance on Completion of Corrective Action Activities at RCRA Facilities" (see 68 FR 8757) for a detailed discussion of corrective action completion. Therefore, an owner or operator of a facility that manages only hazardous secondary materials that are excluded under this final rule, and who seeks to terminate the facility's permit by modifying the permit term, must still demonstrate as part of the permit modification request that the corrective action obligations at the facility have been addressed. The Agency's corrective action authority at such facilities is not affected by this rulemaking and the Agency thus retains its authority to address corrective action at such facilities using all authorities applicable prior to this rulemaking.

At some facilities, corrective action obligations will likely continue to be addressed through the corrective action provisions of the permit. In these cases, maintenance of the permit would ensure that facility-wide corrective action will be addressed. Thus, in these cases, the permit would not be terminated by modifying the permit term, but would be modified to remove the provisions that applied to the now-excluded hazardous secondary material. The facility's permit would, thereafter, only address corrective action.

In other cases, however, EPA or an authorized state may have available an alternative federal or state enforcement mechanism, or other federal or state cleanup authority, through which it could choose to address the facility's cleanup obligations, rather than continue to pursue corrective action under a permit. In these cases, where the alternate authority would ensure that facility-wide corrective action will be addressed, maintenance of the permit would not be necessary.

EPA has long taken the position that RCRA treatment, storage, and disposal facilities are still subject to unfulfilled corrective action obligations, after they cease hazardous waste treatment, storage, or disposal activities. The Agency discussed the issue of its corrective action authority to address non-SWMU-related releases at RCRA treatment, storage, or disposal facilities in the May 1, 1996, Advance Notice of Proposed rulemaking (see 61 FR 19442–3). There, the Agency stated, "[g]iven the legislative history of RCRA section 3004(u), which emphasizes that RCRA facilities should be adequately cleaned up, in part, to prevent the creation of new Superfund sites, EPA believes that corrective action authorities can be used to address all unacceptable risks to human health and the environment from RCRA facilities. In the permitting context, remediation of non-SWMU related releases may be required under the "omnibus" authority. In other contexts, orders under RCRA sections 3008(h) or 7003 may require remedial action to address releases regardless of whether a SWMU is present.

IV. Rationale for Comparable Emissions

A. Appropriate Benchmark Fuel for ECF Emissions

Comment: A commenter states that ECF emissions should be comparable to emissions from an industrial boiler burning natural gas rather than fuel oil. The commenter notes that an EPA document[75] states that approximately 80% of industrial boilers burn natural gas as the primary fuel, and approximately 51% of U.S. industrial boiler capacity (measured as MMBtu/hr) uses natural gas as the primary fuel. Only 11% of industrial boilers with 8% of boiler capacity are fired with oil.

Response: Identifying the most analogous fossil fuel to ECF is a major consideration for establishing conditions of the exclusion for storage and burning. Those conditions must ensure that ECF is stored and burned under conditions similar to those applicable to the most analogous product (and that also address hazards that remain after the exclusion is claimed).

The fact that most industrial boilers burn natural gas as the primary fuel is not a principle factor in determining the most analogous fossil fuel to ECF. ECF is a liquid fuel, as is fuel oil, that is subject to the constituent specifications and maximum viscosity specification for comparable fuel excluded under § 261.38(a), except for the specifications for the 37 hydrocarbons and oxygenates. (In addition, ECF must also meet a minimum heating value specification.) Those specifications ensure that comparable fuel has constituent concentrations and properties relevant to burning that are comparable to fuel oil, a fossil fuel that also is burned in industrial boilers.[76] Thus, fuel oil is the most analogous fossil fuel to ECF, is burned in boilers, and consequently remains a reasonable benchmark for comparison in determining comparability of emissions.

B. Impact of ECF Exclusion on Emissions of Air Pollutants

Comment: A commenter states that the ECF exclusion will result in an increase in air pollutants because: (1) The vast majority of industrial boilers burn natural gas which is a cleaner fuel than ECF; and (2) ECF will be diverted from cement kilns and must be replaced with coal. The commenter states that a high-end estimate of the quantity of hazardous waste fuels that could be displaced from cement kilns could be 146,000 tpy rather than EPA's estimate of 48,400 tpy. In addition, the commenter estimates that the 146,000 tpy of hazardous waste fuels that could potentially be diverted from cement kilns would increase emissions of air pollutants when fired in natural gas boilers of: 16.1 tpy of toxic metals and 4,012 lb/yr of organic hazardous air pollutants (HAP). In addition, cement kilns would replace the diverted hazardous waste fuels with coal, which could increase emissions of SOx by as much as 6,502 tpy and NOx by as much as 4,256 tpy, according to the commenter. Finally, the commenter estimates that emissions of the greenhouse gas, CO_2, could increase as much as 381,000 tpy because the ECF that is diverted from use as a fuel in cement kilns could be incinerated.

The commenter also estimates that the ECF exclusion could result in as much as 292,000 tpy of hazardous waste being diverted from cement kilns because the typical fuel blend for cement kilns

[74] Please note that this response is also applicable to ECF container storage units, and to comparable fuel storage units.

[75] Energy and Environmental Analysis, Inc., "Characterization of the U.S. Industrial Commercial Boiler Population, May 2005, p. 2–5.

[76] The specifications for only three compounds, benzene, naphthalene, and toluene, are based on concentrations in gasoline.

prepared by commercial fuel blenders contains approximately 15 to 25% of hazardous secondary materials that would qualify as ECF.[77] For fuel blenders to meet the specification for cement kilns, the commenter states that the loss of ECF will mean the possible elimination of certain other waste streams that require blending with higher-quality material, such as the hazardous secondary materials that will qualify as ECF. Fuel blenders estimate that they could lose other nonblendable hazardous wastes of a quantity that would be in a range from one-half up to an equal volume of lost ECF. That is, for every ton of ECF that is lost, the commenter believes that between one-half and one ton of other hazardous wastes would not be able to be blended to produce fuel usable at cement kilns. The commenter believes that most of the hazardous waste that is lost because blendable ECF fuel is no longer available probably would require incineration in the future. This other hazardous waste is lower in Btu value[78] and may require thermal treatment; thus, incineration is the most likely alternative outlet for these hazardous wastes.

Response: We would first note that the final rule allows ECF to be burned in cement kilns that burn hazardous waste fuels. Thus, cement kilns may compete with industrial boilers for ECF and can largely determine through their fuel pricing procedures how much ECF may be diverted. However, the fact that ECF may be diverted from cement kilns to other types of burning units is not relevant to an analysis of whether ECF is reasonably classifiable as a nondiscarded material. Nevertheless, EPA has evaluated this comment as part of its obligations under Executive Order 12866 to evaluate costs and benefits of major rules.

The commenter's argument that burning ECF as a replacement for natural gas in boilers will result in an increase in emissions of toxic metals is derived from assuming that ECF contains the maximum levels of metals allowed by the comparable fuel specifications provided in Table 1 to § 261.38 and that the emissions will be uncontrolled. While this may be theoretically possible (it is in fact enormously unlikely that every constituent would be present at the maximum level), it simply reflects that facilities can choose which fuel to burn in their boilers: Natural gas, fuel oil, coal, or other fuels, including comparable fuel or ECF. The comparable fuel specifications for metals apply to ECF and ensure that comparable fuel and ECF contain toxic metals at no higher concentrations than found in fuel oil. Thus, burning ECF in lieu of natural gas will result in emissions of toxic metals no greater than if a boiler decides to burn fuel oil in lieu of natural gas.

Also, the commenter's argument that burning ECF as a replacement for natural gas in boilers will result in an increase in emissions of organic HAP is derived from comparing AP–42 emission factors[79] for fuel oil and natural gas. As discussed above, facilities can choose which fuels to burn in their boilers. The fact that burning fuel oil, or ECF with emissions comparable to fuel oil, in lieu of natural gas or coal may result in higher or lower emissions of air pollutants has no bearing on whether hazardous secondary materials should be excluded from the definition of solid waste if they are managed similar to fossil fuels, their emissions are comparable to those from burning fuel oil, and they are physically identical with respect to most hazardous constituents (and there is no aspect of discard in other management phases, *e.g.*, storage and transport).

Potential Increase in NO_X and SO_X Emissions. The commenter's argument that there will be an increase in SO_X and NO_X emissions is premised on the need for cement kilns to replace the hazardous secondary materials that will be excluded as ECF with coal.[80] SO_X emissions will increase if coal contains higher concentrations of sulfur than ECF. The commenter believes that NO_X emissions will increase because burning hazardous secondary materials in cement kilns reduces the formation of thermal NO_X (*i.e.*, the hazardous secondary material changes the shape of the flame and reduces flame temperatures, thus reducing NO_X formed at high temperatures from the nitrogen in air). In response, we note that the state regulatory authority will determine under the State Implementation Plan (SIP) if any increase in emissions of either SO_2 or NO_2 must be further controlled pursuant to the area's attainment or maintenance of the relevant National Ambient Air Quality Standard (NAAQS).

Nonetheless, we have estimated the increase in NO_X and SO_X emissions at cement kilns that may be caused by the diversion of ECF from cement kilns to boilers, and the cost of controlling those emissions so that there is no net increase in emissions.[81] [82] Although we estimated at proposal that 48,400 tpy of ECF could be diverted from cement kilns, the commenter has estimated that as much as 292,000 tpy[83] of hazardous secondary materials may be diverted. Consequently, we estimated the impacts of the exclusion considering that range of diverted materials.[84]

Regarding NO_X emissions, we have determined in the study that the commenter used as an example of the potential increase in NO_X emissions may not accurately represent the impact of reducing the ECF firing rate on NO_X emissions. The study involved NO_X emissions testing at a cement facility under two test conditions where coal was fired with and without hazardous waste fuel. The tests showed a substantial decrease in NO_X (and SO_X) emissions when hazardous waste fuel was fired at a 50 percent mass input rate. Other key parameters that can affect NO_X emissions also varied during those tests, however: The type of coal and the raw material composition. Those parameters may affect the excess air requirements, flame temperature, and flame profile, which can affect NO_X emissions. Consequently, we conducted an independent analysis of the impact on NO_X emissions of reducing the hazardous waste fuel firing rate using NO_X equilibrium calculations to assess flame temperatures and the resultant impact on NO_X formation. We determined that NO_X emissions may increase by a total of 130 to 530 tpy nationwide for the 20 cement kilns burning hazardous waste fuels. Given the small average increase in NO_X

[77] Docket No. EPA–HQ–RCRA–2005–0017–0126.3, pp. 34–35.

[78] The commenter provides the example of a waste stream that may contain flammable solvents with 80% water but that, EPA presumes, has a heating value greater than 5,000 Btu/lb as-generated and is thus considered to be burned for its heating value rather than for destruction.

[79] See *http://www.epa.gov/ttn/chief/ap42/.*

[80] We note that SO_2 and NO_2 are criteria air pollutants for which EPA has established NAAQS. In addition, NO_X emissions are precursors for ground-level ozone (also a criteria pollutant controlled with a NAAQS), and both NO_X and SO_X contribute to fine particulates (*i.e.*, PM2.5), a criteria pollutant that is also controlled with a NAAQS.

[81] See USEPA, "Comment Response Document for the Expansion of the Comparable Fuels Exclusion," October 2008, Section 4.1.

[82] We note that these costs may not be incurred if the state regulatory authority under the SIP determines that the increase in SO_X emissions will not result in an exceedance of the NAAQS.

[83] The commenter states that as much as 146,000 tpy of hazardous secondary materials may be diverted from cement kilns as ECF, and that another 146,000 tpy of hazardous waste may be diverted to incinerators because the wastes can no longer be blended with the higher quality hazardous secondary materials (*i.e.*, ECF) to meet the fuel specifications for cement kilns.

[84] We reiterate that we conducted this analysis to meet our obligations under Executive Order 12866 to evaluate costs and benefits of major rules. These impacts have no bearing on whether ECF is a "solid waste."

emissions at each kiln (*i.e.*, from 7–27 tpy), we believe the emission reductions could be achieved without significant cost by minor adjustments to boiler operating parameters, such as operating at a fractionally lower oxygen concentration.

Regarding SO_X emissions, we note that the higher sulfur content of the coal that may replace ECF is not likely to increase SO_X emissions at eight of the 20 kilns that burn hazardous waste. That is, eight of the kilns are preheater/precalciner kilns where SO_X emissions attributable to fuels are scrubbed from the combustion gas by the limestone as the combustion gas passes through the preheater/precalciner cyclones. The remaining 12 long wet or long dry kilns do not provide this scrubbing effect, however, and fuel-related sulfur will result in an increase in SO_X emissions. We estimate that SO_X emissions will increase by 570 tpy nationwide under our estimate that 48,400 tpy of ECF may be diverted, and by 2,300 tpy under the commenter's estimate that 292,000 tpy of ECF may be diverted. To control these SO_X emissions, we have estimated that the annualized cost of dry scrubbing would range from $1.1 million to $1.7 million. We have revised our economic impact analysis of the ECF exclusion to account for these costs.

Potential Increase in CO_2 Emissions. Finally, we do not accept the commenter's argument that emissions of the greenhouse gas CO_2 (an air pollutant under the Clean Air Act) could increase because ECF is diverted from use as a fuel in cement kilns. Although the commenter explains that hazardous waste fuels that have high water or ash content must be blended with higher quality waste fuels, such as ECF, to meet the commercial specifications for cement kiln fuels, the heating value of those lower quality fuels nonetheless provides useful heat input to the cement kiln.[85] If those low quality fuels can no longer be blended to produce cement kiln fuel because there is less high quality fuel available because of the ECF exclusion, those low quality fuels may be diverted to hazardous waste incinerators. Those fuels will not be simply treated for destruction by incineration, however. Those fuels will provide useable heat energy to treat other hazardous wastes with little or negative heating value, thus reducing the incinerator's need to provide supplemental heat input from fossil fuel (e.g., natural gas). This is the same role that (we presume) those lower quality fuels played in cement kilns—providing useable heat to displace fossil fuel. Thus, there should not be an increase in CO_2 emissions.

C. Assurance of 99.99% DRE of ECF Constituents

Comment: Several commenters state that the conditions for burning ECF are not adequate to ensure 99.99% DRE. Specifically, commenters question why hazardous waste combustors are subject under MACT and RCRA to a DRE emissions demonstration and limits on multiple operating parameters (*e.g.*, minimum combustion chamber temperature; indicator of maximum gas flowrate; waste feedrate limits) if 99.99% DRE can be assured simply by complying with the conditions for burning ECF.

A commenter notes further that EPA states that the two primary operating conditions to ensure 99.99% DRE and good combustion are that CO levels remain below 100 ppmv and that ECF is fired into the flame of the primary fuel. EPA states that ECF must be fired into the flame of the primary fuel to avoid total ignition failure whereby low CO levels may not ensure good combustion.[86] Yet, the commenter notes that the exclusion does not require the burner to document that, in fact, ECF is fired into the flame zone so that CO will be a valid indicator of good combustion. Another commenter that is generally in favor of the exclusion questions why the other burner operating conditions are needed if the two primary operating conditions are to maintain CO emissions below 100 ppmv and to fire ECF into the flame zone of the primary fuel.

Response: ECF Conditions Ensure 99.99% DRE. The boiler operating conditions for burning ECF are provided under § 261.38(c)(2)(ii)(C). The principal operating conditions that ensure good combustion are: (1) Continuous monitoring of CO emissions to ensure that levels remain below 100 ppmv; and (2) firing the ECF into the flame of the primary fossil fuel, which must comprise at least 50% of the boiler's fuel requirements. The ECF boiler operating conditions are less rigorous (at least facially) than requirements to ensure 99.99% DRE for hazardous waste combustors under the MACT standards of 40 CFR Part 63, Subpart EEE and the RCRA standards of 40 CFR Part 264, Subpart O, and Part 266, Subpart H. Those hazardous waste combustor requirements include a requirement to conduct a DRE emission test and to establish operating limits on several parameters based on the levels achieved during the DRE test.

A demonstration test that an ECF boiler is achieving 99.99% DRE is not needed, however, because the ECF boiler design and operating conditions ensure that 99.99% DRE will be achieved.[87] Because 99.99% DRE is assured, the operating limits that must be established for hazardous waste combustors under a DRE demonstration test to ensure that DRE is maintained are not needed for ECF boilers. As explained at proposal (72 FR at 33294), EPA concluded from substantial boiler testing in the mid-1980's that boilers cofiring hazardous waste fuels with fossil fuels where the hazardous waste provides less than 50 percent of the boiler's fuel requirements and CO levels remain below 100 ppmv can achieve 99.99% DRE under a wide range of operating conditions (*e.g.*, load changes, waste feed rate changes, excess air rate changes). Based on that testing (which is fully documented in the record to the 1991 boiler and industrial furnace rulemaking (56 FR 7134, Feb. 21, 1991), and has been added to the docket for this rule), EPA promulgated a provision in the Boiler and Industrial Furnace final rule whereby the DRE demonstration (and associated operating limits) are waived for boilers burning hazardous waste. See § 266.110. The ECF boiler conditions in this rule are equivalent to the hazardous waste boiler provisions for waiving the DRE demonstration.[88] Thus, the ECF boiler

[85] *Note:* If these lower quality fuels are not themselves fuels prior to blending such that burning in a cement kiln would be destruction, as opposed to providing heat input, then blending these lower quality fuels with high quality fuels at a cement kiln would constitute "sham" recycling. This would raise the question of whether the clinker product is derived-from hazardous waste.

[86] Under total ignition failure, CO may be low because the fuel is not combusted. Rather, the fuel is simply volatilized, resulting in high hydrocarbon emissions.

[87] Please note that we are referring to DRE of an organic compound in a feedstream, not the effective, measured DRE of compounds that are common PICs, even under good combustion conditions. If DRE is measured for compounds that are common PICs (*e.g.*, benzene, toluene, naphthalene, and phenol), and those compounds are fed at low rates, the amount of the compound present as a PIC may be large enough relative to the amount of the unburned compound contributed by the feed such that less than 99.99% effective DRE may be measured.

[88] The ECF boiler conditions are actually more stringent than the requirements for waiving the DRE demonstration for hazardous waste boilers. ECF may not be burned in process heaters because of concern that combustion gas may be quenched to cool the gas to provide temperatures needed to heat process fluids appropriately, such that the temperature quench may preclude complete combustion of organic compounds and emissions would no longer be comparable. In addition, the ECF cannot exceed a particle size of 200 mesh (74 microns) to ensure good combustion, while the DRE waiver for hazardous waste boilers requires that only 70% of particles pass a 200 mesh screen.

conditions will also ensure that (at least) 99.99% DRE is achieved.

A Demonstration That ECF Is Fired into the Flame Zone Is Needed. We agree with the commenter, however, that an ECF boiler should be required to document that ECF is, in fact, fired into the flame zone of the primary fuel, thus ensuring that CO is a valid indicator of good combustion (*i.e.*, that CO is not low simply because ECF is not being combusted). If ECF were inadvertently not fired into the flame zone of the primary fuel, CO levels could be low even though hydrocarbon (HC) emissions could be high. Organic compounds in the feed could be simply volatilized rather than combusted, vitiating emission comparability. Although it is unlikely that ECF would not be fired into the primary fuel flame zone (which is necessary for the boiler to derive the full heating value from the fuel), this situation could potentially occur due to poor design or installation of the ECF firing system. Accordingly, the final rule requires the burner to document by information or testing that ECF will be fired directly into the primary fuel flame zone. The documentation must be included in the initial notification to the RCRA and CAA regulatory authorities. See § 261.38(c)(5)(i)(H).

A one-time HC test when burning ECF under reasonable worst-case conditions demonstrating that HC levels are below 10 ppmv, while CO is below 100 ppmv, would be one way to make the demonstration. A HC level of 10 ppmv or below is indicative of good combustion conditions and is the MACT emission standard for hazardous waste boilers. 70 FR at 59462–63. Operating conditions during the HC test should include: (1) The highest ECF firing rate anticipated; (2) the lowest ECF heating value anticipated; (3) the lowest primary fuel firing rate and heating value anticipated; and (4) the lowest boiler load anticipated. Although we have revised our economic impacts analysis for the exclusion to account for the cost of a one-time HC test for all boilers burning ECF, information other than HC testing could be used to document that ECF is fired into the primary fuel flame zone. That is, HC testing is not required if other documentation can be provided to show that the ECF is fired into the primary fuel flame zone. For example, documentation could be provided that the ECF is fired in the same firing system (*e.g.*, via concentric firing nozzles) as primary fuel.

D. Use of Available Emissions Data To Document ECF Emissions Will Be Comparable to Fuel Oil Emissions

Comment: A commenter states that EPA's analysis purporting to document that emissions from burning ECF will be comparable to emissions from burning fuel oil in an industrial boiler is riddled with flaws.

Response: Although we address each of the commenter's major concerns below,[89] we acknowledge that, absent a robust data base, stakeholders could reasonably have opposing views on the issues. Nonetheless, we believe that our technical evaluation at proposal was reliable. However, we note that the issue of whether available data support a finding that ECF emissions will be comparable to fuel oil emissions has been superseded by including conditions in the final rule that establish a feedrate limit for each ECF constituent. The feedrate limits provide objective assurance that emissions from a boiler burning ECF will be comparable to emissions from a boiler burning fuel oil. See discussion in Part Three, Section III.B.3 above.

1. Use of Hazardous Waste Boiler Emissions Data

Comment: The commenter states that, absent emissions data from burning ECF in industrial boilers, EPA uses hazardous waste boiler emissions data as a surrogate. This is an indirect comparison, however, filled with huge data gaps.

Response: Hazardous waste boiler emissions data are a reasonable surrogate for ECF boiler emissions data because the combustion of organic compounds in ECF will be controlled by conditions on ECF burners that are at least as stringent as the controls on hazardous waste boilers. 72 FR at 33291. Although hazardous waste boiler emissions data are an indirect comparison, we believe they are still a valid comparison. We respond to the commenter's concerns about data gaps below.

2. Concern That EPA's Oil Emissions Data Base Has Emissions Data for Only 12 of 37 ECF Constituents

Comment: The commenter states that EPA's oil emissions data base contains data on only 12 of the 37 hydrocarbons and oxygenates listed in Table 1 to § 261.38 for which the specifications would no longer apply. Absent a fuel oil emissions benchmark, EPA cannot conclude that ECF emissions are comparable, according to the commenter.

Response: As discussed above in Part Three, Section III.B.3, the final rule establishes feedrate conditions for each ECF constituent that will ensure that ECF emissions are comparable to fuel oil emissions. The feedrate conditions are established by back-calculating from industrial boiler fuel oil emission levels (or surrogate emission levels) using projected destruction and removal efficiencies. We have oil emission levels for 12 ECF constituents and establish surrogate oil emission levels for the remaining ECF constituents. Those surrogate emission levels are representative of oil emission levels (for the PAHs) and, for the oxygenates, are reasonable surrogates that result in *de minimis* health risk.[90]

3. Concern That EPA's Oil Emissions Data Base Is Too Sparse To Establish Benchmarks

Comment: The commenter states that, of the 12 ECF constituents for which EPA has oil emissions data, data for seven of the constituents are too sparse to establish a benchmark. That is, for seven of the ECF constituents, oil emissions data are available for only one or two boilers, and are insufficient to establish a benchmark. The commenter believes that EPA then compounds the problem of too few data by using a 95th percentile as the benchmark for comparison to the hazardous waste boiler emissions data.

Response: We believe it is reasonable to use the available oil emissions data for these 12 ECF constituents. We also note, however, that because the limited oil emissions data are not likely to represent the total range of oil emissions data, we use the highest test condition average for these 12 ECF constituents to establish the ECF constituent feedrate limits discussed above in Part Three, Section III.B.3.

4. Concern That EPA Did Not Evaluate the Oil Emissions Data Base for Probable Outliers

Comment: The commenter states that the oil emissions data used as benchmarks may overstate emission levels given that the Agency did not evaluate the data for outliers.

[89] We provide responses to all of the commenter's concerns in USEPA, "Comment Response Document for Expansion of the Comparable Fuel Exclusion," October 2008, Section 4.

[90] We note that the fuel oil emission level for acrolein (*i.e.*, 18 ug/dscm) may result in maximum annual average ground level concentrations that approach the reference air concentration (RfC) (as may occur when boilers burn fuel oil). Although we use the acrolein oil emission level as a surrogate emission level for the other ECF oxygenates, maximum annual average ground level concentrations for those other oxygenates will be orders of magnitude below their RfCs.

Response: We concur that an outlier analysis should be performed on the oil emissions data for the ECF constituents where sufficient data are available to identify high outliers. We performed that analysis for the final rule and determined that the highest test condition for toluene has a run variance that is a high outlier, even though the test condition average is not a high outlier relative to the other test condition averages.[91] Consequently, the highest test condition average for toluene is 120 ug/dscm, rather than 350 ug/dscm.

5. Concern That the Level of Detection Is Needed for Nondetect Data Points in the Hazardous Waste Boiler Data Base

Comment: The commenter states that EPA should present the level of detection for hazardous waste boiler emissions data that are reported as nondetect. If the level of detection for the hazardous waste boiler emissions for an ECF constituent is higher than the oil emissions benchmark, the Agency cannot conclude that emissions are comparable, according to the commenter.

Response: The level of detection for the nondetect data in the hazardous waste boiler emissions data base is not readily available. While we agree that this is a limitation of the data base, the level of detection for the hazardous waste boiler emissions data would be helpful only if it were below the highest oil emission data level for an ECF constituent. As the commenter notes, if the level of detection were higher than the oil emissions data, we would not know whether the hazardous waste boiler emissions level were higher or lower than the oil emissions level. Moreover, as noted previously, our analysis comparing hazardous waste boiler emissions data (as a surrogate for ECF emissions data) to fuel oil emissions data has been superseded in the final rule by establishing feedrate limits for each ECF constituent. The feedrate limits provide objective assurance that the ECF emissions will be comparable to the fuel oil emissions.

6. Concern Regarding the Concentration of ECF Constituents in Hazardous Waste Boiler Fuels

Comment: The commenter states that the concentration of ECF constituents in the hazardous waste boiler fuels must be provided to determine whether hazardous waste boiler emissions are comparable to the fuel oil emissions. The commenter believes that, given that emissions will increase as feeds increase, it is important to know whether the hazardous waste feeds had the same concentrations of ECF constituents as allowed for ECF (*i.e.*, 100%). EPA must establish concentration limits for each ECF constituent consistent with the hazardous waste fuel concentrations that document comparable emissions, according to the commenter.

Response: We agree that emissions of ECF constituents can be expected to increase with increased feedrate. To address this concern, the final rule establishes a feedrate limit for each ECF constituent that will ensure that emissions of those constituents from a boiler burning ECF are comparable to emissions of those constituents from a boiler burning fuel oil. As mentioned above, these feedrate limits provide objective assurance of comparable emissions and effectively supersede our analysis comparing hazardous waste boiler emissions with oil emissions.

7. Concern Whether EPA Has Adequately Considered PIC Emissions

Comment: The commenter states that the hazardous waste boiler emissions (as a surrogate for ECF emissions) document that emissions of PICs that are not ECF constituents are higher than the emissions from oil-fired boilers.

Response: At proposal, we examined each compound that our data base indicated may be emitted by hazardous waste boilers at levels higher than fuel oil boilers and explained why the seeming exceedance should not be considered as documentation that ECF emissions are not comparable to oil emissions.[92] The reasons for explaining the exceedances include: (1) Dichloromethane is a common lab contaminant; (2) ethyl benzene and phenathrene were emitted at *de minimis* levels (*i.e.*, neither were emitted at concentrations above 8 ug/dscm); and (3) the hazardous waste boilers were often not operated under the stringent conditions that will be required for ECF boilers, such that combustion conditions may have been less than optimum resulting in higher emissions than will result from ECF burning.

Nonetheless, we agree with the commenter that PIC emissions must be considered in making a finding that ECF emissions will be comparable to oil emissions. For the final rule, we have objectively accounted for PIC emissions in establishing a feedrate limit for each ECF constituent. See discussion above in Part Three, Section III.B.3.

V. Conditions for Burning ECF

A. Applicability of ECF Exclusion to Other Combustors

Comment: Several commenters state that combustors other than watertube boilers that are not stoker-fired should be allowed to burn ECF, such as: hazardous waste combustors (HWCs) operating under a RCRA permit, process heaters, thermal oxidizers, fire tube boilers, and stoker-fired boilers. Several commenters also state that EPA should allow ECF to be burned in the same types of combustion units allowed to burn existing comparable fuel.[93]

Response: We agree with the commenters that state that the exclusion should allow ECF to be burned in HWCs. Therefore, the final rule allows ECF to be burned in HWCs (*i.e.*, incinerators, cement kilns, lightweight aggregate kilns, boilers (including stoker-fired boilers, firetube boilers, and process heaters), and halogen acid production furnaces) operating under a RCRA permit,[94] provided the ECF is burned under the operating requirements that would be applicable if the ECF were a hazardous waste. See § 261.38(c)(2)(i). Thus, the operating requirements applicable to the hazardous waste will apply to burning of ECF as a fuel (as a condition of the exclusion) in lieu of the ECF burner operating conditions under § 261.38(c)(2)(ii), with one exception. The ECF feedrate limits under § 261.38(c)(2)(ii)(C) continue to apply to HWCs. Although the RCRA and CAA operating requirements applicable to hazardous waste ensure 99.99 percent DRE and good combustion conditions, the ECF constituent feedrate limits are also needed to ensure that ECF emissions from HWCs will be comparable to fuel oil emissions (for the same reasons the feedrate limits are needed for ECF boilers).[95] [96] In addition,

[91] See USEPA, "Final Technical Support Document for the Expansion of the Comparable Fuels Exclusion," November 2008, Section 6.3.

[92] See USEPA, "Draft Technical Support Document for the Expansion of the Comparable Fuels Exclusion," May 2007, Section 5.5.1.

[93] Under § 261.38(b)(3)(i) of the final rule, comparable fuel must be burned in a hazardous waste incinerator operating under a RCRA permit, an industrial furnace, or an industrial or utility boiler.

[94] Although all hazardous waste combustors must obtain a RCRA operating permit, the principal substantive operating requirements derive from the NESHAP under Subpart EEE, Part 63. As a condition of the exclusion, ECF must be burned under all of the operating requirements applicable to hazardous waste, whether they derive from the NESHAP or RCRA (*e.g.*, RCRA requirements for startup, shutdown, and malfunctions).

[95] Even though the ECF burner operating conditions under § 261.38(c)(2)(ii) ensure 99.99% DRE and good combustion, the feedrate limits under paragraph (c)(2)(ii)(C) are needed to ensure that ECF emissions are comparable to fuel oil emissions because combustion is generally a

to implement the ECF constituent feedrate limits, the ECF automatic feed cutoff system requirements under § 261.38(c)(2)(ii)(G) that apply to monitoring the constituent feedrate limits as specified under § 261.38(c)(2)(ii)(G)(1)(ii) also apply to HWCs.

Several other commenters suggest that the rule allow ECF to be burned in a RCRA-permitted hazardous waste combustor under the CO monitoring condition only. These commenters believe that the other hazardous waste operating requirements should not apply. These commenters state that ECF should be allowed to be burned, for example, during startup or shutdown, provided that the CO limit of 100 ppmv is met. We disagree. Complying with the CO condition alone may not ensure 99.99 percent DRE and good combustion. We note that hazardous waste may be burned in a hazardous waste combustor during startup and shutdown provided that the combustor is operating under the operating limits in the permit. Those operating limits include operating parameters (*e.g.*, minimum combustion chamber temperature) in addition to a CO limit of 100 ppmv to ensure 99.99 percent DRE and overall good combustion. (Those other operating limits for hazardous waste combustors (*i.e.*, other than the CO limit of 100 ppmv) help ensure good combustion of hazardous waste just as the other ECF burner conditions help ensure good combustion of ECF.) Therefore, the hazardous waste combustor operating requirements for hazardous waste must apply at all times that ECF is burned.

Commenters stating that other combustors, including those that are eligible to burn comparable fuel (*i.e.*, other than hazardous waste combustors operating under requirements applicable to hazardous waste), should be allowed to burn ECF did not provide adequate supporting information that such combustors would achieve 99.99% DRE and good combustion conditions. We acknowledge that many types of combustors can achieve 99.99% DRE and good combustion conditions when burning hazardous waste fuels or ECF under various conditions, under the regulatory oversight provided by an operating permit program (which among other things, establishes site-specific parametric monitoring requirements to assure that the source continues operating under the conditions of the successful trial burn). We are concerned, however, that these combustors may not always be able to achieve 99.99% DRE and good combustion conditions under all situations when complying with the ECF operating conditions under the exclusion. We explained at proposal that there is a greater potential for poor distribution of combustion gases and localized cold spots in firetube and stoker boilers that can result in poor combustion conditions. 72 FR at 33294. Although a commenter states that modern firetube boilers equipped with modern controls do not have the potential for cold spots and poor combustion, the commenter did not suggest how we could distinguish such modern firetube boilers from others, and did not indicate whether those boilers could operate efficiently under a wide range of conditions (*e.g.*, boiler load). Similarly, another commenter states that their process heaters do not quench the combustion gas to reduce gas temperatures to avoid overheating a process fluid, a concern we expressed at proposal that could adversely affect combustion efficiency by interrupting the complete combustion of organic compounds. 72 FR at 33294. The commenter did not suggest, however, how we could distinguish between process heaters that may quench the combustion gas and those that do not.

B. EPA's Approach To Identify Feedrate Limits for ECF Constituents

Comment: A commenter argues that the approach EPA discussed at proposal to establish feedrate limits—back-calculating from oil emission levels using projected DREs—is flawed. The commenter believes that EPA has no basis to assume the projected DREs will be achieved by boilers burning ECF, given that the only operating control is for carbon monoxide. The commenter notes that DRE performance also depends on other key operating conditions, such as the maximum demonstrated waste feed rate, minimum combustion temperature, maximum combustion gas velocity, minimum atomization pressure, and other operating parameters that are defined based on performance tests.

In addition, the commenter notes that EPA has oil emissions data for only 12 ECF constituents and states that the *de minimis* emission level established for the remaining constituents is nothing more than an arbitrary guess. The commenter also states that the maximum allowable emission levels should be based on the average oil emissions, not the highest test condition average.

Finally, another commenter states that it is surprising that EPA establishes a *de minimis* emission level as high as 20 ug/dscm given that several emissions standards for hazardous waste combustors (HWCs) established under CAA section 112(d)(3) (MACT standards) are lower than this level. 40 CFR Part 63, Subpart EEE. For example, the commenter notes that the HWC MACT standard for new boilers for mercury is 6.8 ug/dscm, and the standards for new incinerators are 8.1 ug/dscm for mercury and 10 ug/dscm for semivolatile metals.

Response: We use the same general approach for the final rule that we proposed. We establish a feedrate limit for each ECF constituent, expressed as a gas flowrate-normalized feedrate limit, that is back-calculated from the fuel oil emission level (or surrogate emission levels) for each constituent using a projected DRE. The fuel oil emission level is the highest test condition average for that constituent in the oil emissions database, or a surrogate emission level where oil emissions data are not available. The DRE for each constituent is projected considering the thermal stability of the constituent and whether the constituent is a common PIC. See discussion in Part Three, Section II.B.3 above.

We disagree with the commenter's views that 99.99 percent DRE cannot be projected for ECF constituents. We have explained that the extensive ECF boiler design and operating conditions will ensure good combustion and a minimum of 99.99 percent DRE for the ECF constituents in the feed.[97] See

constant percent reduction process. The greater the constituent feedrate, the greater the (residual) emission rate of the constituent.

[96] HWCs must comply with the ECF constituent feedrate limit conditions because the generator has claimed the exclusion for ECF and realized some benefits of the exclusion (*e.g.*, waived closure requirements; no hazardous waste manifest). The other substantive benefits of the ECF exclusion that accrue to off-site ECF burners (*e.g.*, no RCRA permit requirement for the storage unit or combustor; no closure or financial assurance requirements) may not be realized by HWCs, however, because the HWC is already subject to those controls. Of course, if the generator did not claim the exclusion, the ECF constituent feedrate conditions would not apply to the HWC.

[97] Please note that, although we project DREs of less than 99.99% for ECF constituents that are commonly formed as PICs, the feed-related DREs for these ECF constituents are 99.99% or higher. That is, the DRE of the compound in the feed is at least 99.99%. (The conditions on burning are at least equivalent to the controls on hazardous waste boilers that ensure 99.99% DRE under § 266.110.) The measured or apparent DRE, however, can be lower than 99.99% for these compounds because, at low feedrates of the compound, the PIC contribution of the compound from the destruction of other compounds can provide a significant contribution to emissions relative to the residual from 99.99% destruction of the compound in the feed.

discussion in Part Three, Section III.B.3 above.

In response to the commenter's views on the *de minimis* emission levels we discussed at proposal, we have revised our approach to identify surrogate emission levels for ECF constituents for which we do not have oil emissions data. See discussion above in Part Three, Section III.B.3. For the final rule, we identify a surrogate emission level of 0.02 ug/dscm for the two PAHs for which we do not have oil emissions data, and a surrogate emission level of 18 ug/dscm for the oxygenates for which we do not have oil emissions data. Consequently, we are not identifying *de minimis* emission levels.

Finally, we also disagree with the commenter's view that the maximum allowable emission level for the 12 ECF constituents for which we have oil emissions data should be based on the average oil emissions rather than the highest test condition average. We have explained previously why it is reasonable to establish the allowable emission levels for these constituents as the highest test condition average rather than another metric, such as the average test condition average or the 95th percentile test condition average. See Part Three, Section II.B.3 above.

C. Use of WMPT To Rank ECF Constituents According to Hazard Potential

Comment: Several commenters argue that EPA's use of the WMPT methodology to rank ECF constituents by their hazard potential is flawed because it does not assess exposure.

Response: As stated at proposal, our hazard ranking effort was not a full quantitative risk assessment, but rather a screening-level ranking of hazardous compounds based on potential chronic (*i.e.*, long-term) risks to human health and the environment. 72 FR at 33318. As such, we consider it appropriate to apply the WMPT's use of a small number of relatively simple measures (*i.e.*, combination of bioaccumulation and persistence factors) to represent the exposure potential of each chemical.

Moreover, we note that the final rule does not rely on the WMPT-based hazard ranking procedure to support maintaining the comparable fuel specifications for the PAHs and naphthalene and for establishing special firing rate limits for benzene and acrolein, as proposed. 72 FR at 33299–301. Because the final rule establishes a feedrate limit for each ECF constituent which provides objective assurance that emissions of ECF constituents from ECF burners will be comparable to emissions from fuel oil boilers, the proposed restrictions on PAHs, naphthalene, benzene, and acrolein are not included in the final rule.

D. Request To Expand Primary Fuel Condition

Comment: Several commenters state that fuels other than fossil fuel, fuel derived from fossil fuel, or tall oil having a minimum heating value of 8,000 Btu/lb should be allowed as primary fuel to meet the condition that ECF must be cofired with at least 50 percent primary fuel. Commenters state that the following fuels should also be considered primary fuel: Comparable fuel excluded under § 261.38(a)(1); hydrogen gas, and alcohol fuels.

Response: To consider other fuels as a primary fuel, we would need information describing their fuel-related properties given that we rely on the primary fuel to provide the hot, stable flame needed to ensure a 99.99% DRE and good combustion. For example, we would need to know the range of most of the parameters defined by the proximate and ultimate analyses of the fuels, as well as their viscosity. Commenters did not provide any description of "hydrogen gas" or "alcohol fuels." Consequently, we cannot assess whether these fuels should be considered primary fuel.

We agree with commenters, however, that comparable fuel excluded under § 261.38(a)(1) should be allowed as a primary fuel, provided that the as-fired heating value is at least 8,000 Btu/lb, consistent with the minimum heating value requirement for the other primary fuels. Given that existing comparable fuel has a composition and physical properties related to combustion that are the same as fuel oil, it is reasonable to consider it a primary fuel, provided the as-fired heating value is at least 8,000 Btu/lb.

E. Minimum Primary Fuel Firing Rate

Comment: Several commenters state that the proposed minimum 50 percent firing rate for primary fuel should be reduced. One commenter suggested that the minimum primary fuel firing rate requirement should be reduced to 20 percent, while other commenters argued that there should be no minimum primary fuel firing rate requirement.

In addition, a commenter states that EPA failed to support the primary fuel firing rate requirement with data or a sound basis. The commenter believes that, because ECF must have a heating value of at least 8,000 Btu/lb and can exceed the comparable fuel specifications solely for hydrocarbons and oxygenates, there is no reason that the ECF firing rate should be limited at all.

Another commenter notes that most boilers use a primary fuel, such as natural gas, for startup, but then switch to other, nonfossil fuels after steady-state conditions are attained. These boilers easily maintain compliance with the RCRA standards for hazardous waste boilers, including very low CO levels (*e.g.*, below 3 ppmv), according to the commenter.

Response: As discussed at proposal, EPA conducted a program of parametric testing in the mid-1980s of boilers burning waste fuels to identify design and operating conditions that would ensure 99.99 percent DRE and good combustion conditions. 72 FR at 33293. We proposed operating conditions for ECF boilers based on the conclusions of that extensive testing, including the requirement to burn at least 50 percent primary fuel. Commenters that suggest that a lower (or no) primary fuel firing rate would still ensure 99.99 percent DRE and good combustion conditions simply note that low CO levels can be maintained, which is evidence of good combustion conditions. These commenters did not provide information, however, documenting the properties of any of the fuels being fired to the boiler, or whether good combustion conditions were maintained over a range of boiler loads. While we believe that maintaining CO levels at or below 100 ppmv (measured continuously) is a principal factor for ensuring good combustion conditions, other conditions are also necessary to help ensure good combustion under a regulatory exclusion without the oversight of an operating permit program. Moreover, we note that hazardous waste boilers must comply with a 50 percent minimum primary fuel requirement to obtain a waiver of the DRE standard. See § 266.110.

F. Request To Increase the Minimum 8,000 Btu/lb Requirement for ECF

Comment: Several commenters argue that the proposed 8,000 Btu/lb minimum as-fired heating value for ECF is much too low because it is not comparable to the 18,000 Btu/lb heating value of fuel oil.

Response: A principle of the ECF exclusion is that the emissions from burning ECF are comparable to the emissions from burning fuel oil when ECF is burned under the conditions set out in the exclusion. Although the concentrations of hydrocarbons and oxygenates in ECF may be higher than in fuel oil, these constituents themselves exhibit fuel value; in addition, the emissions of those

compounds from a boiler burning ECF are comparable to the emissions of these compounds from a boiler burning fuel oil given the level of destruction achieved by ECF boilers operating under good combustion conditions. Similarly, the heating value of ECF need not be comparable to the heating value of fuel oil to assure emission comparability, although we would note, as we did at proposal, that the minimum heating value of fossil fuels normally burned in industrial boilers are in the range of 8,000 Btu/lb. 72 FR at 33296. We establish a minimum 8,000 Btu/lb heating value for ECF to help ensure that ECF combusts well so that ECF emissions will be comparable to emissions from burning fuel oil in the same units.

G. Request for Periodic CO Monitoring

Comment: Several commenters argue that periodic rather than continuous CO monitoring should be allowed.[98] One commenter states that, because EPA is already requiring that CO emissions be controlled for ECF at a level four times more stringent than that required of industrial boilers, plus imposing many other conditions, requiring continuous CO emission monitoring for all combustion units is a costly requirement that would not result in any additional margin of safety for ECF combustion units. The commenter notes that the cost for installing a CO CEMS (continuous emission monitoring system) with an automatic ECF feed cutoff system would be approximately $800,000, and operating and maintenance cost would be approximately $50,000.

Response: As we stated in the proposal, the Agency needed information from commenters that would explain and provide support on why periodic monitoring was sufficient. No such information was provided that explained how the owner or operator would ensure that the boiler is operating under good combustion conditions during those times that the boiler is not being monitored for CO. Consequently, the final rule requires continuous CO monitoring.

We also disagree with the commenter that provided cost information. Specifically, we estimated the costs of a CO CEMS and automatic ECF feed cutoff system to be relatively modest.[99] That is, we estimated the annualized cost of a CO CEMS is approximately $5,800 for a boiler that is not already equipped with the system, while the annualized cost of an automatic ECF feed cutoff system is approximately $3,800. The commenter did not provide comments on our cost estimates.

H. Request That Additional Operating Parameters Should Be Linked to the ECF Automatic Feed Cutoff System

Comment: A commenter states that additional operating parameters must be linked to the ECF AFCOS to ensure that the boiler continuously complies with the operating conditions and that emissions will remain comparable to fuel oil emissions. The commenter notes that boiler operators may not be in attendance at all times, and therefore parameters in addition to CO and gas temperature at the inlet to a fabric filter or electrostatic precipitator (if primary fuel other than coal is burned) must be linked to the ECF AFCOS. Specifically:

- To ensure compliance with the minimum boiler load limit of 40 percent, an indicator of boiler load (*e.g.*, steam production rate) must be linked to the ECF AFCOS;
- To ensure compliance with the minimum primary fuel firing rate, an indicator of the primary fuel firing rate must be linked to the ECF AFCOS;
- To ensure compliance with the ECF constituent feedrate limits, an indicator of the ECF feedrate must be linked to the ECF AFCOS.

Response: We agree with the commenter for the reasons the commenter provides. The final rule, therefore, requires that five parameters must be linked to the ECF AFCOS: (1) CO CEMS; (2) gas temperature at the inlet to the fabric filter or electrostatic precipitator (if primary fuel other than coal is burned); (3) indicator of boiler load; (4) indicator of primary fuel feedrate; and (5) indicator for ECF feedrate. See § 261.38(c)(2)(ii)(G).

I. Request That Burner Conditions Should Not Apply to MEK and Isobutanol

Comment: EPA received comments that it should consider eliminating constituent limits and other burner controls for methyl ethyl ketone and isobutanol because neither contaminate is considered a HAP under the CAA.

Response: EPA's framework for this rule, as proposed, is based on the comparability of emissions of RCRA hazardous constituents from hazardous secondary materials to such emissions from fuel oil, as opposed to risk, and we did not take comment on an exclusion approach based on zero or *de minimis* risk. Therefore, we do not believe it is appropriate to make this change for purposes of this final rule without seeking additional comment from other interested parties. Therefore, we are not including any change to the rule based on this comment. However, EPA may consider expanding its emission-comparable fuel approach to include this concept in future rulemaking for these chemicals and others that are not listed as hazardous air pollutants.

VI. Implementation of the ECF Exclusion

A. Reasonable Efforts To Ensure Compliance With the Conditions of Exclusion by Off-Site, Unaffiliated Burners

At proposal, we requested comment on whether the final rule should include a "reasonable efforts" provision that would provide that the failure of an off-site, unaffiliated burner to meet the proposed conditions or restrictions of the exclusion would not mean that ECF was considered a hazardous waste when handled by the generator, as long as the generator can adequately demonstrate that he has made reasonable efforts to ensure that the hazardous secondary material will be managed by the burner under the conditions of the exclusion. Although the ECF exclusion requires the generator to obtain a certification from the burner that the ECF will be stored and burned under the conditions of the exclusion, a "reasonable efforts" provision would require the generator to take reasonable independent and proactive measures to ensure that the burner will manage ECF under the conditions of the exclusion. 72 FR at 33312.

We explained that, to achieve this benefit, the generator would have to exercise a type of "environmental due diligence" in reviewing the operations of the burner in advance of transferring the hazardous secondary materials. We stated that we believe that a reasonable efforts provision might involve methods, such as audits (including site visits), that a number of generators of hazardous secondary materials now use to maintain their commitment to sound environmental stewardship, and to minimize their potential regulatory and liability exposures. These audits are frequently performed by third parties.

We also requested comment on whether a reasonable efforts provision should include criteria that define

[98] Please note that we requested comment at proposal on whether periodic CO monitoring should be allowed rather than continuous monitoring. 72 FR at 33295–96. We stated that commenters must explain and provide supporting information why periodic monitoring is sufficient, including how the owner or operator would ensure that the boiler is operating under good combustion conditions during those times that the boiler is not being monitored for CO.

[99] See USEPA, "Draft Technical Support Document for the Expansion of the Comparable Fuels Exclusion," May 2007, Section 7.5.

reasonable efforts, and what those criteria should be.

1. Reasonable Efforts Provision in the Final Rule

The final rule states that an excluded fuel—ECF, comparable fuel, and synthesis gas fuel—loses its exclusion if any person managing the fuel fails to comply with the conditions of the exclusion, in which case the hazardous secondary material must be managed as a hazardous waste from the point of generation. In such situations, EPA or an authorized state agency may take enforcement action under RCRA section 3008(a). See § 261.38(d)(2).

The rule states further, however, that the burner rather than the generator will be liable for discarding a hazardous waste if an off-site, unaffiliated burner [100] fails to comply with a condition of the exclusion, provided that the generator has made reasonable efforts to ensure that the burner complies with the conditions of the exclusion. The reasonable efforts must be based on an objective evaluation by the generator, both prior to the first shipment of ECF and every three years thereafter, that the burner will manage the ECF under the conditions of the exclusion.

Specifically, reasonable efforts by the generator must include, at a minimum, affirmative answers to the following questions prior to shipping ECF to a burner, and must be repeated at a minimum of every three years thereafter: (1) Has the burner submitted the notification to the RCRA and CAA Directors required under § 261.38(c)(5)(i), and has the burner published the public notification of burning activity as required under § 261.38(b)(2)(i); (2) does publicly available information indicate that the burner facility has had any formal enforcement actions taken against the facility in the previous three years for violations of the RCRA hazardous waste regulations and has been classified a significant noncomplier with RCRA Subtitle C, and if yes, does the generator have credible evidence that the burner will nonetheless manage the ECF under the conditions of § 261.38; and (3) does the burner have the equipment and trained personnel to manage the ECF under the conditions of § 261.38? [101]

In making these reasonable efforts, the generator may use any credible evidence available, including information obtained from the burner and information obtained from a third party. The generator must maintain for a minimum of three years documentation and certification that reasonable efforts were made for each burner facility to which ECF is shipped. The documentation and certification must be made available upon request by a regulatory authority within 72 hours, or within a longer period of time as specified by the regulatory authority. The certification statement must be signed and dated by an authorized representative of the generator company; and incorporate the following language: "I hereby certify in good faith and to the best of my knowledge that, prior to arranging for transport of emission-comparable fuel to [insert name(s) of burner facility], reasonable efforts were made to ensure that the emission-comparable fuel would be burned under the conditions prescribed by § 261.38, and that such efforts were based on current and accurate information."

The reasonable efforts provisions for ECF parallels the reasonable efforts provisions in the recently promulgated Revisions to the Definition of Solid Waste,[102] as they would reasonably apply to ECF.

Rationale for the Questions. The first question addresses whether the burner has submitted the initial notification to the RCRA and CAA regulatory authorities required under § 261.38(c)(5)(i), and whether the burner has published the public notification of burning activity as required under § 261.38(b)(2)(ii). The notification to the regulatory authorities documents the burner's intention to burn ECF, describes the ECF burning activities, and certifies that the burner will store and burn ECF under the conditions of the exclusion. This notification is a one-time notification unless there is a substantive change in the information provided in the notice. It is important that the generator confirm that the burner has complied with this condition of the exclusion because the notification identifies the burner to the regulatory authorities and confirms that the burner is aware of their responsibilities to comply with the conditions of the exclusion.

The public notification of burning activity required under § 261.38(b)(2)(ii) must be submitted for publication in a major newspaper of general circulation local to the site where the ECF will be burned and must contain general facility information and: (1) An estimate of the average and maximum monthly and annual quantity of the ECF to be burned; and (2) the name and mailing address of the regulatory authorities to whom the generator submitted a claim for the exclusion. This notice is important because it gives the public the opportunity to bring to the regulatory authority's attention any circumstance that might aid the authority in its monitoring and enforcement efforts.[103]

The second question focuses on the compliance history of the burner. Although consideration of compliance data is an imperfect tool for determining whether a burner would comply fully with the conditions of the exclusion, we believe that publicly available compliance data are a reasonable starting point for evaluating a facility's performance. Facility-specific enforcement data on compliance status, ongoing enforcement actions by both EPA and the states, and specific case information for formal enforcement actions are readily available on EPA's public Web site at *http://www.epa.gov/echo/*. "Formal enforcement" is a written document that mandates compliance and/or initiates a civil or administrative process, with or without appeal rights before a trier of fact that results in an enforceable agreement or order and an appropriate sanction. For EPA, formal enforcement action is a referral to the U.S. Department of Justice for the commencement of a civil action in the appropriate U.S. District Court, or the filing of an administrative complaint, or the issuance of an order, requiring compliance and a sanction. For states, formal enforcement action is a referral to the state's Attorney General for the commencement of a civil or administrative action in the appropriate forum, or the filing of an administrative

[100] An unaffiliated burner is a boiler or hazardous waste combustor located at a facility that is not owned by the same parent company that generated the ECF.

[101] In the final definition of solid waste rulemaking, the reasonable efforts provision also asked several additional questions, including: (1) Does the reclamation facility intend to reclaim the hazardous secondary materials legitimately pursuant to § 261.2(g); (2) has the reclamation facility notified the appropriate authorities that the financial assurance condition is satisfied per § 261.4(a)(24)(v)(F); and (3) if residuals are generated by the reclamation facility, is the facility prepared to manage them properly as hazardous waste. These questions are not appropriate in this instance because: (1) The specifications and conditions in the ECF exclusion define the legitimacy of the operation and thus, an independent determination does not need to be made; (2) there is no financial assurance requirement in this final rule; and (3) any residuals that are generated by the combustion of ECF are not expected to contain levels of containments above those found in residuals from the burning of fuel oil, including hydrocarbons and oxygenates as they themselves have fuel value and will be combusted.

[102] See § 261.4(a)(24(v)(B) and the discussion in the preamble to the final rule for the Revisions to the Definition of Solid Waste in Section VIII.C.2 (see 73 FR 64668, October 30, 2008).

[103] The public, furthermore, would have the ability to bring a citizen suit for failure to comply with a condition of the exclusion.

complaint, or the issuance of an order, requiring compliance and a sanction. "Significant non-complier" is a defined term in EPA's *Hazardous Waste Civil Enforcement Response Policy* and means the violators have caused actual exposure or a substantial likelihood of exposure to hazardous waste or hazardous waste constituents; are chronic or recalcitrant violators; or deviate substantially from the terms of a permit, order, agreement, or from the RCRA statutory or regulatory requirements. In evaluating whether there has been actual or likely exposure to hazardous waste or hazardous waste constituents, EPA and the states consider both the environmental and human health concerns, including the potential exposure of workers to hazardous waste or hazardous waste constituents. For both terms, see EPA's *Hazardous Waste Civil Enforcement Response Policy (Dec. 2003)* at *http://www.epa.gov/compliance/resources/policies/civil/rcra/finalerp1203.pdf.*

We do not believe that evaluating this publicly available information, which a generator would likely already be familiar with based on its own regulated activities, is difficult for a generator, nor is interpreting the data and deriving conclusions about facilities, since the data base specifically notes whether a facility is alleged to be a "significant non-complier" (*i.e.*, identified as a "SNC" or in "significant noncompliance"). We also note that since many states already provide compliance information to EPA and the public through the EPA Web site, we do not believe that a generator's review of such information would pose a significant new burden for state agencies.

While a facility designated as a significant non-complier and the subject of a formal enforcement action does not mean that the facility would not comply with the conditions of the exclusion, it does raise questions that we believe the emission-comparable fuel generator should investigate. That is, if any formal enforcement actions were taken against the facility in the previous three years for such noncompliance and the facility was alleged to be a significant noncomplier, we would expect that the burner would adequately explain to the emission-comparable fuel generator how it has resolved any issues or how the issues are unrelated to managing emission-comparable fuel under the conditions of the exclusion. Additionally, if the generator obtains reasonable information that the enforcement matters have been corrected and the facility is back in compliance, then that would satisfy this aspect of the reasonable efforts determination. The generator also may wish to make a similar investigation of facilities designated as significant noncompliers by EPA or a state even if no formal enforcement action has been taken.

The third question focuses on the technical capability of the burner to comply with the conditions of the exclusion. If a burner was found not to have the storage and burner equipment necessary to comply with the conditions of the exclusion, or not to be in conformance with the storage and burner personnel training conditions of the exclusion or otherwise not to have adequately trained personnel to operate and maintain the equipment, the generator should not ship ECF to the facility. A generator may answer this question using audit reports, information provided by industry or waste management associations, documents provided by the burner, and other relevant information, which could include an evaluation by a qualified engineer. A generator may also make a common sense inquiry of a burner that includes requesting an explanation of the kind of equipment used for ECF storage and burning; review of equipment specifications; and demonstrations of the facility training program, and training records. Specific questions and/or a site visit also may be appropriate.

Credible Evidence. We believe that a generator should be allowed to use any credible evidence available in making reasonable efforts, including information provided by the burner and/or by a third party, in lieu of personally performing an assessment. For example, the generator might hire an independent auditor to review the burner's operations, produce audit reports as a consortium of generators using the same burners, or rely on an assessment by a trade association. We encourage this type of pooling of information to reduce the burden on generators and to take advantage of specialized technical expertise.

2. Consequence of Failure to Comply With a Condition of Exclusion

Comment: A commenter argued that the provision that "noncompliance with the operating conditions by a burner renders the ECF a hazardous waste from the point of generation" is a poison pill, draconian enough that it may prevent facilities from using the exclusion. The commenter believes that noncompliance by the burner of an operating condition should be handled simply as a violation by the burner without consequences to the generator.

Response: Noncompliance with a condition for exclusion of a hazardous waste simply means that the material remains a hazardous waste. EPA uses RCRA Section 3007 authority to inspect facilities that manage excluded materials. If a condition of the exclusion is not being satisfied, the material is no longer excluded. Any related enforcement action would involve noncompliance with the handling and management requirements for hazardous waste.[104]

3. Reasonable Efforts

Comment: Several commenters support a reasonable efforts provision, but state that EPA should not prescribe the criteria that qualify as reasonable efforts. These commenters believe that differences in operations (*e.g.*, ECF quantity; ECF composition and firing rate; boiler size) at ECF burner facilities should dictate the level of effort that is needed to meet the "reasonable efforts" provision.

Other commenters do not support a reasonable efforts provision. They believe that the best way to ensure adherence with the burner operating conditions under the potentially limited oversight of an exclusion is to provide an incentive for the generator to ensure that the burner complies with the conditions. They believe the provision that noncompliance by a burner renders the ECF a hazardous waste from the point of generation provides that incentive. Several of these commenters also believe that the examples of reasonable efforts EPA provided at proposal (e.g., frequency of audits) should be added as conditions of the exclusion to help ensure compliance by burners.

Response: We agree with those commenters that state that a reasonable efforts provision is warranted because the generator should not be liable for actions by a burner that are truly beyond the control of the generator. Although we understand the argument made by those commenters that believe holding the generator liable (*i.e.*, via the provision that failure to comply with the conditions of the exclusion renders the ECF a hazardous waste from the point of generation) provides a good incentive to ensure that only burners that are willing and capable of managing ECF under the conditions of the exclusion will manage ECF, we believe that the measures required by this rule to document and certify that reasonable

[104] Please note, however, that a generator who complies with the reasonable efforts provisions of § 261.38(d) would not be liable for management of a hazardous waste if an off-site unaffiliated burner fails to comply with a condition of the exclusion.

efforts have been made to ensure that an off-site, unaffiliated burner complies with the conditions of the exclusion will also ensure that responsible and capable burners manage ECF. (Of course, in most instances, we project that the generator and burner are the same entity, in which case failure to satisfy a condition results in that entity being held accountable for managing ECF as a waste, without exception.)

We do not agree with those commenters that believe the rule should require prescriptive measures (rather than the generic questions required by this rule) to implement a reasonable efforts provision, or that such prescriptive measures should be included as a condition of the exclusion. The measures necessary for generators to make reasonable efforts that an ECF burner is willing and capable of complying with the conditions of the exclusion, and, in fact, is complying with the conditions over time, will be specific to each situation (*e.g.*, relationship of the burner to the generator; experience of the burner with managing hazardous waste; ECF quantity; ECF composition and firing rate; boiler size). Specifying prescriptive measures, such as requiring that the generator conduct an audit of the burner's operations and that the audits must be conducted annually, may not provide adequate measures in some situations, and may be unnecessary in others.

B. Fuel Analysis Plans

1. Use of Process Knowledge

Comment: A commenter states that fuel analysis plans for ECF should require testing for all ECF constituents and there must be no allowance for the use of process knowledge in lieu of analysis.

Response: Sampling and analysis provisions for ECF are the same as for existing comparable fuels, which allow the generator to use process knowledge to determine whether the fuel meets the ECF specifications, except for constituents listed under § 261.38(b)(6)(i). Allowing process knowledge to determine whether ECF meets the specifications is reasonable given that generators of solid waste may use process knowledge to determine if the waste exhibits a characteristic of hazardous waste, including the toxicity characteristic. See § 262.11(c)(2). If a generator uses process knowledge to make the determination that ECF meets the specifications, any information used to make that determination must be included in the ECF fuel analysis plan. See § 261.38(b)(4)(i)(E).

2. Quarterly Waste Analysis Testing

Comment: A commenter states that the frequency of analysis of ECF needs to be on a quarterly basis rather than an annual basis given the higher loading of hazardous constituents allowed under this exclusion.

Response: The rule requires retesting annually, at a minimum, or after a process change that could change the chemical or physical properties of the ECF. See § 261.38(b)(6)(ix). We do not believe that a generic requirement to retest quarterly is warranted. The consequences of improperly claiming the ECF exclusion are severe-if the ECF fails to meet the specification under § 261.38(a)(2), it loses the exclusion and must be managed as hazardous waste from the point of generation. In addition, the owner or operator of the facility may also be subject to an enforcement action if management of the hazardous secondary material was not in compliance with the regulations.

C. Intermediate Handlers

Comment: The rule requires ECF to be handled only by a generator, transporter, or a burner; ECF must not be handled by a broker or an intermediate handler. A commenter notes that small volume generators would be able to participate in the ECF program if an intermediary handler would be allowed to accumulate ECF from several small generators, perform allowable blending, complete the analysis, and market the ECF to the burner.

Response: Because blending of the hazardous secondary materials to meet the ECF specifications is specifically prohibited under § 261.38(a)(4) and (b)(7), the Agency continues to exclude brokers or intermediate handlers from handling ECF and being eligible for the conditional exclusion. See 63 FR at 33801 for a discussion of the rationale for prohibiting dilution to meet the specifications.[105]

VII. Costs and Benefits of the ECF Exclusion

During the public comment period for the proposed rule, we received several comments related to the economic analysis. These comments were submitted primarily from four organizations and raised concerns about ten specific aspects of our economic assessment. Presented below are brief individual summaries of the ten key issues raised by the commenters, followed by our responses. For a more complete discussion of these comments, see USEPA, "Assessment of the Potential Costs, Benefits, and other Impacts of the Expansion of the RCRA Comparable Fuel Exclusion," April 2008, a copy of which is in the Docket to this final rule.

A. Concern That the Economic Analysis Did Not Account for the Increased Risk Likely To Result From the Exclusion

Comment: The economic analysis did not account for the increased risk likely to result from the exclusion. Several commenters allege that emissions of criteria pollutants, greenhouse gases, and hazardous air pollutants will increase as a result of the rule and that occupational risk will also increase under the proposed exclusion. Therefore, commenters submit that the Agency does not fully capture the social costs associated with the rule.

Response: The commenters argue that the economic analysis did not fully address the social costs associated with the rule, because of the increased risk likely to result from the exclusion. While we will address each of the emission categories that the commenters identify, it should also be noted that the final rule allows hazardous waste combustors to continue to burn ECF. Thus, the amount of ECF that may eventually be diverted from hazardous waste combustors is a function of the combustors' fuel pricing procedures, and is probably less than what we estimated at proposal.

With respect to SO_X and NO_X emissions, the increase is based on the potential for cement kilns to substitute coal for the hazardous secondary materials that may be diverted to other facilities as a result of the exclusion. As outlined above in Section IV.B of this Part, we recognize that cement kilns' SO_X emissions could increase if the exclusion causes them to increase their consumption of coal. The magnitude of such an increase will depend on the quantity of ECF diverted from cement kilns. We estimate that SO_X emissions will increase by 570 tpy nationwide under our estimate of the ECF quantity that could potentially be diverted from cement kilns, and by 2,300 tpy under the commenter's estimate of the quantity of ECF and hazardous waste fuels that may be diverted. The Economic Assessment for the final rule addresses the cost of controlling these emissions.

Regarding NO_X, although we agree that cement kilns' NO_X emissions could increase as a result of the exclusion, we believe that such an increase is unlikely.

[105] Note that, as with hazardous waste and consistent with the recently promulgated Revisions to the Definition of Solid Waste in the context of hazardous secondary materials, ECF can be held up to 10 days at a transfer facility and still be considered as being in transport.

As described in Section IV.B of this Part, we believe that cement kilns could operate at a fractionally lower oxygen concentration without significant cost to prevent their NO_X emissions from increasing. Similarly, EPA does not believe that the commenters' concerns with respect to CO_2 emissions are valid. See Section IV.B of this Part for a detailed discussion of this issue as well.

With respect to hazardous air pollutants, the commenters' argument that burning ECF as a replacement for natural gas in boilers will result in an increase in emissions of toxic metals assumes that ECF contains the maximum metals concentrations allowed by the comparable fuel specifications provided in Table 1 to § 261.38 and that boilers' emissions will be uncontrolled. In many cases, however, the metals concentrations of ECF are likely to be below the § 261.38 fuel specifications. Moreover, even in a worst case, metals emissions from burning ECF will be no higher than if the boiler chose to burn fuel oil.

The commenters' argument that burning ECF as a replacement for natural gas in boilers will result in an increase in emissions of organic HAP is based on the differences between the AP–42 emission factors for fuel oil and natural gas. As discussed in Section IV.B of this Part, however, facilities can choose which fuels to burn in their boilers. The fact that burning fuel oil, or ECF with emissions comparable to fuel oil, in lieu of natural gas or coal may result in higher or lower emissions of air pollutants has no bearing on whether hazardous secondary materials should be excluded from the definition of solid waste if they are managed similar to fossil fuels, their emissions are comparable to those from burning fuel oil, and they are physically identical with respect to most hazardous constituents (and there is no aspect of discard in other management phases, *e.g.*, storage and transport).

Finally, any potential occupational impacts associated with this action would be addressed under the jurisdiction of OSHA and DOT authorities.

B. Impacts Associated With Hazardous Waste Currently Blended With ECF

Comment: A commenter asserts that to produce waste fuel that meets the specifications required by cement kilns, fuel blenders (and, to a lesser extent, kilns themselves) currently blend ECF with lower-Btu, more highly contaminated waste. The resulting fuel mixture takes the place of coal in the cement production process. If ECF is diverted away from fuel blenders as a result of the rule, the commenter claims that the low-Btu waste that blenders currently mix with ECF will be diverted away from blenders and cement kilns to commercial incinerators. The economic analysis does not account for this effect and therefore, according to commenters, underestimates economic impacts likely to be realized by blenders and cement kilns as a result of the rule.

Response: EPA acknowledges that, if cement kilns' fuel pricing procedures result in ECF being diverted from cement kilns, the diversion of ECF could preclude them from accepting wastes that are currently blended with ECF. These wastes, which must be blended with higher quality fuels (*e.g.*, ECF) to meet the fuel requirements for cement kilns, could be diverted from cement kilns to commercial hazardous waste incinerators, according to the commenter. The Economic Assessment for the final rule evaluates the potential economic impacts associated with such transfers. These impacts include reduced revenues for cement kilns, increased fuel costs for cement kilns, and increased revenues for commercial incinerators.

C. Concern That the Economic Analysis Underestimates the Quantity of Hazardous Secondary Materials Qualifying for the Exclusion

Comment: Based on the results of a survey of Cement Kiln Recycling Coalition (CKRC) members, CKRC and Environomics estimate that as much as 146,000 tpy of hazardous secondary materials managed by cement kilns may be excluded as ECF, as opposed to the 48,400 tpy presented in EPA's economic analysis for the proposed rule.

Response: We recognize that the quantity of ECF burned by cement kilns may be different than suggested by the National Biennial Report data available for the proposed rule. However, because this database represents the only comprehensive source of data for ECF generators, the Agency relies on the Biennial Report data to assess the impacts of the exclusion. We will use the most recently available quality-controlled nationwide data to prepare the assessment for the final rule.

D. Concern That the Economic Analysis Underestimates the Percentage of Qualifying Hazardous Secondary Materials That Would Be Excluded From RCRA Subtitle C Regulation Under the Exclusion

Comment: EPA's analysis of the proposed rule suggests that 39.9 percent of the qualifying waste managed by cement kilns would be excluded under the rule. To develop this estimate, EPA simulated the decision-making process of ECF generators based, in part, on the fuel savings that generators would realize if they use the exclusion. For each generator with an eligible boiler onsite, EPA estimated these fuel savings based on the weighted average price of the fuels used by the generator. The commenter suggests that this approach leads to an underestimation of the fuel savings realized by generators because generators would likely use ECF to displace their most expensive fuel. Therefore, EPA is also likely to underestimate the percentage of eligible waste excluded under the proposed rule and the corresponding economic losses experienced by cement kilns. Thus, the commenter asserts that as much as 100 percent of the waste qualifying for the exclusion will be excluded.

Response: To the extent that the quantity of hazardous secondary materials diverted from kilns may be different than that estimated in the economic assessment for the proposed rule, we agree that the corresponding impacts may also be different than estimated. However, it remains unclear how low and moderate-Btu waste currently mixed with ECF will necessarily be diverted to incinerators.[106] It is our understanding that such wastes could be blended with other fuels such as diesel, kerosene, used motor oil, or used lubricants to create fuel blends suitable for cement kilns. In addition, as discussed previously, the final rule allows ECF to continue to be burned in cement kilns. The amount of ECF that may be diverted from cement kilns will be a function of their fuel pricing procedures.

E. Concern That the Economic Analysis Does Not Consider Joint Impacts With the Proposed Definition of Solid Waste Rule

Comment: A commenter expressed concern that the Agency's economic assessment of the proposed ECF exclusion does not consider potential joint impacts with the proposed revisions to the Definition of Solid Waste Rule. Because several facilities may be affected by both rules, the commenter alleges that the combined impacts of the rules may be greater than the summed impacts of each rule alone.

Response: We disagree with this comment. The revisions to the Definition of Solid Waste Rule, in both the proposal and supplemental proposal, have reiterated that "no

[106] Moreover, any such waste fuels that may be diverted from cement kilns to incinerators would be used for their fuel value (as is the case for cement kilns) in the incinerator to combust wastes with little or no heating value.

changes are proposed for recycling materials that are: * * * (3) burned for energy recovery." Neither the burning of hazardous secondary materials for energy recovery nor the blending of hazardous secondary materials for use as fuel are eligible for exclusion from RCRA regulations under the Definition of Solid Waste proposals. Thus, no meaningful joint impacts are expected. It is important to note, however, that some waste streams could potentially be excluded from the full RCRA Subtitle C regulations under either the Definition of Solid Waste rule or the emission comparable fuels exclusion. Therefore, the joint impact of the two rules could be less than (rather than greater than, as suggested by the comment) the sum of the impacts of each rule when estimated individually.

F. Concern That the Economic Analysis Underestimates the Value of Coal

Comment: EPA's economic analysis of the proposed rule underestimates the cost of coal. While EPA assumes the cost of coal to be $1.80 per MMBtu, a commenter estimates that cement kilns pay approximately $2.56 to $3.00 per MMBtu of coal, based on a survey of those cement kilns that burn hazardous waste as a fuel. Therefore, EPA's analysis underestimates the coal replacement costs incurred by cement kilns as a result of the rule.

Response: We agree that the cost of coal used for the proposed rule may be lower than the current cost. When we conducted the economic analysis at proposal, we used coal pricing information from the Energy Information Administration's (EIA's) *Annual Coal Report 2004*. This was the most recent publicly available source of annual coal prices at the time. Because coal prices have been trending upward, the coal pricing data in this publication are lower than current prices. For the economic assessment of the final rule, we use coal pricing data from EIA's *Annual Coal Report 2006*. Adjusting the data in this document for inflation, we assume a coal price of approximately $2.23 per MMBtu for the economic analysis of the final rule.

G. Concern That the Economic Analysis Overestimates the Per Unit Cost of Incineration

Comment: A commenter alleges that EPA's incineration cost estimate of $0.96 per gallon is an overestimate. The commenter argues that these data are outdated and do not reflect current market conditions and that incinerators currently charge $0.10 to $0.15 per gallon to manage waste with properties consistent with ECF. Because this cost is significantly lower than the unit cost used in the analysis, the commenter claims that the Agency overestimates the management cost savings associated with the rule.

Response: We note that the price of incinerating ECF is subject to uncertainty. At the time of our analysis for the proposed rule, ETC's 2004 price information from the hazardous waste incineration industry represented the most recent publicly available data on the cost of incineration, and it is still the most recent publicly available data on the cost of incineration. The Agency prefers, when possible, to use the most recent publicly available data when conducting our economic assessments. However, to address the commenter's concerns regarding our potential overestimation of the cost of incinerating ECF, we use the low end of the reported range of costs in the Environmental Technology Council's 2004 data release ($0.41 per gallon) for our economic assessment of the final rule.

H. Concern That EPA Overestimates the Price That ECF Would Command on the Open Market

Comment: In its economic assessment of the proposed rule, EPA estimates that the market price of ECF ($5.58 per MMBtu) will be approximately 26 percent less than that of conventional fuel (*i.e.*, a composite of natural gas, fuel oil, and coal). A commenter asserts that the market price of ECF is likely to be considerably lower than this value and that EPA has overestimated the fuel savings of the rule. To support this point, the commenter cites the market price of $0.50–$3.00 per MMBtu for used oil. Because used oil is a cleaner fuel than ECF, the market price for ECF is likely to be no higher than the price of used oil.

Response: We understand that the market price of ECF would be uncertain because of the regulatory requirements associated with storing and burning this hazardous secondary material. The Agency disagrees, however, with the commenter's assessment of the price that ECF would command on the open market. Although the commenter claims that the price of used fuel oil is between $0.50 and $3.00 per MMBtu, the 2005 Department of Energy Study entitled, "Used Oil Study and Recommendations to Address Energy Policy Act of 2005 Section 1838" indicates that the price of used oil is discounted 25 to 35 percent from the price of residual oil. Based on the 2006 residual oil price of $1.22 per gallon reported in DOE's *Petroleum Marketing Annual 2006* and an assumed thermal value of 6.287 MMBtu per barrel, this translates to a used oil price of $5.28 to $6.10 per MMBtu. EPA's estimated value of $5.58 per MMBtu for ECF, therefore, falls within this range.

I. Concern That Revenue Losses for Commercial Incinerators and Cement Kilns Are Not Reflected in EPA's Estimates of the Social Costs (Savings) of the Rule

Comment: EPA estimates that commercial incinerators and cement kilns, combined, will experience annual revenue losses of approximately $5 million as a result of the rule. Because these losses are not incorporated into the estimated costs of the rule, a commenter states that EPA overestimates the cost savings likely to result from the exclusion.

Response: EPA disagrees with the commenter's suggestion that the Agency should deduct the reduction in commercial incinerator and cement kiln revenues from the estimated net cost value presented in the economic assessment document. As described in the methodology section of the economic assessment document, these reductions in revenues do not represent an expenditure of resources and, therefore, are not a social cost.

J. Concern That EPA Has Not Evaluated the Adverse Consequences to National Waste Management Networks That Might Result if Some States Adopt the Rule and Others Do Not

Comment: To the extent that some states do not adopt the regulation, the ECF rule will lead to inconsistent requirements across state lines, according to a commenter. The commenter asserts that EPA's analysis fails to account for the adverse consequences associated with the patchwork of state regulations that will likely emerge as a result of the exclusion.

Response: We agree with the commenter that inconsistencies in waste management regulations across state lines may create inefficiencies within the national hazardous waste management system. For this reason, we encourage all states to adopt the ECF rule. Because adoption of the rule must occur at the state level, however, determinations with respect to adoption are outside of EPA's authority.[107]

We disagree, however, with the commenter's characterization of the Agency's analysis of the partial implementation scenario in the

[107] We note also that the current exclusion for comparable fuel, as well as other exclusions or exemptions, must also be adopted at the state level to become effective. Thus, the fact that some states may not adopt the ECF exclusion is not unexpected.

Economic Assessment document. Although the analysis estimates impacts when only a limited number of states adopt the proposed rule, the commenter's characterization of this assessment as a scaling analysis is incorrect. Rather than scaling the national results, we focused this partial implementation analysis on 16 states with laws that either: (a) Prohibit them from promulgating standards that are more stringent than the federal regulations; or (b) require them to undertake additional legislative action to enact standards more stringent than federal regulations.

Part Five: State Authority

I. Applicability of the Rule in Authorized States

Under section 3006 of RCRA, EPA may authorize qualified states to administer their own hazardous waste programs in lieu of the federal program within the state. When EPA authorizes a state to implement the RCRA hazardous waste program, EPA determines whether the state program is consistent with the federal program, and whether it is no less stringent. This process, codified in 40 CFR 271, ensures national consistency and minimum standards, while providing flexibility to the states in implementing rules. Following authorization, EPA retains enforcement authority under sections 3008, 3013, and 7003 of RCRA, although authorized states have primary enforcement responsibility. In making this determination, EPA evaluates the state requirements to ensure they are no less stringent than the federal requirements.

Prior to enactment of the Hazardous and Solid Waste Amendments of 1984 (HSWA), a State with final RCRA authorization administered its hazardous waste program entirely in lieu of EPA administering the federal program in that state. The federal requirements no longer applied in the authorized state, and EPA could not issue permits for any facilities in that state, since only the state was authorized to issue RCRA permits. When new, more stringent federal requirements were promulgated, the state was obligated to enact equivalent authorities within specified time frames. However, the new federal requirements did not take effect in an authorized state until the state adopted the federal requirements as state law.

In contrast, under RCRA section 3006(g) (42 U.S.C. 6926(g)), which was added by HSWA, new requirements and prohibitions imposed under HSWA authority take effect in authorized states at the same time that they take effect in unauthorized states. EPA is directed by the statute to implement these requirements and prohibitions in authorized states, including the issuance of permits, until the state is granted authorization to do so. While states must still adopt HSWA related provisions as state law to retain final authorization, EPA implements the HSWA provisions in authorized states until the states do so.

RCRA section 3009 allows the states to impose standards more stringent than those in the federal program (see also 40 CFR 271.1). Therefore, authorized states are required to modify their programs only when EPA enacts federal requirements that are more stringent or broader in scope than the existing federal requirements. Authorized states may, but are not required to, adopt federal regulations that are considered less stringent than previous federal regulations. Because this rule would eliminate specific requirements for hazardous secondary materials that are currently managed as hazardous waste, state programs would no longer need to include those specific requirements in order to be consistent with EPA's regulations.

II. Effect on State Authorization

These regulations are not promulgated under the authority of HSWA. Thus, this exclusion is applicable on the effective date only in those states that do not have final RCRA authorization. Moreover, authorized states are required to modify their program only when EPA promulgates Federal regulations that are more stringent or broader in scope than the authorized state regulations. For those changes that are less stringent or reduce the scope of the Federal program, states are not required to modify their program. This is a result of section 3009 of RCRA, which allows states to impose more stringent regulations than the Federal program. This final rule is considered to be less stringent than the current standards. Therefore, authorized states are not required to modify their programs to adopt regulations consistent with and equivalent to today's standards, although EPA strongly encourages states to do so.

Some states incorporate the federal regulations by reference or have specific state statutory requirements that their state program can be no more stringent than the federal regulations. In those cases, EPA anticipates that the exclusions in this notice would be adopted by these states, consistent with state laws and state administrative procedures, unless they take explicit action as specified by their respective state laws to decline the proposed revisions.

Part Six: Costs and Benefits of the Final Rule

I. Introduction

The value of any regulatory action is traditionally measured by the net change in social welfare that it generates. The Agency's economic assessment conducted as part of EPA's obligations under Executive Order 12866 evaluates costs, cost savings (benefits), waste quantities affected, and other impacts, such as environmental justice, children's health, unfunded mandates, regulatory takings, and small entity impacts. To conduct this analysis, we prepared a baseline characterization for ECF, developed and implemented a methodology for examining impacts, and followed appropriate guidelines and procedures for examining equity considerations, children's health, and other impacts. Because EPA's data were limited, the estimated findings from these analyses should be viewed as national, not site-specific impacts.

II. Baseline Specification

Proper baseline specifications are vital to the accurate assessment of incremental costs, benefits, and other economic impacts associated with a rule that would expand the exclusion for hazardous secondary materials used as a fuel. The baseline essentially describes the world absent any expanded exclusion. The incremental impacts of this action are evaluated by assessing post-rule responses with respect to baseline conditions and actions. The baseline, as applied in this analysis, is assumed to be the point at which the final rule is published. A full discussion of the baseline specification is presented in the *Assessment*[108] document completed for this action.

III. Analytical Methodology, Primary Data Sources, and Key Assumptions

We developed a simplified four-step approach for assessing the cost and economic impacts associated with this action. First, we identified all potentially eligible hazardous secondary materials currently generated in the U.S. We next determined the tonnage of such material that is likely to qualify for the exclusion. An economic threshold analysis was next applied to the likely eligible hazardous secondary material (*i.e.* currently-classified waste) to

[108] USEPA, "Assessment of the Potential Costs, Benefits, and Other Impacts of the Expansion of the RCRA Comparable Fuel Exclusion—Final Rule," April 2008.

determine which facilities could be expected to benefit from the exclusion. For example, for a generator with a fossil fuel boiler on-site, the model assumes that the facility will use the exclusion if the total benefits (cost savings) realized by the generator are projected to exceed the total costs incurred to take advantage of the exclusion. Finally, we aggregated all facilities that are likely to use the exclusion to derive estimates for total costs, cost savings, and economic impacts (ECF quantities affected).

The analytical model for this analysis derives both cost savings and costs associated with the exclusion. Cost savings include: fuel cost savings (net of baseline fuel recovery), avoided hazardous waste management costs, transportation cost savings, tracking cost savings, and storage cost savings. These factors may be considered economic benefits of the action. The model also assesses relevant costs of the exclusion. These include: burner storage costs, boiler retrofit costs, hazardous secondary material analytical costs, raw materials replacement cost (related to the hazardous secondary material that is recycled in the baseline), recordkeeping costs, and transport costs.

The net social benefits are calculated as the difference between the social benefits (cost savings) and social costs. The *total* net social benefits of the rule are then calculated by aggregating the net social impacts associated with each facility expected to use the exclusion. Because this rule establishes "emissions" comparable fuels, impacts to human health and the environment are assumed to be comparable, or generally unchanged as compared to virgin fuels, and are therefore not included in our monetized assessment.

The primary data sources used in this analysis are the 2005 Biennial Report (2005 BR),[109] the 1996 National Hazardous Waste Constituent Survey (NHWCS),[110] the 2002 National Emissions Inventory (NEI),[111] the ACC Survey data,[112] and information provided in the engineering analysis developed by EERGC. The 2005 BR data were used to derive the potentially eligible hazardous secondary materials currently generated in the U.S. This is the only national database available that has been reviewed by the Agency to ensure data quality. The 1996 NHWCS reflects dated information, but was the only quality controlled data source available that provided the necessary constituent information on a nationwide basis, across all industries. The NEI data were used to make a determination of whether an eligible boiler is located at each facility. The EERGC engineering analysis provided all necessary engineering cost information.[113]

Data limitations have required us to apply several assumptions in our analysis. The most critical assumptions are:

- The ECF is assumed to be burned in nonhazardous waste boilers that meet the conditions of the exclusion;
- The ECF is assumed to have an average heating value of 12,200 Btu/lb. (This is based on our assessment of the National Hazardous Waste Constituent Survey);
- A facility that can use the exclusion, and has a nonhazardous waste boiler on-site that could burn ECF, would burn this material on-site rather than sending it off-site;
- The number of facilities purchasing ECF is assumed to equal the number of generating facilities expected to send their ECF off-site; and,
- All excluded ECF generated in a particular state that is sent offsite by the generating facility is assumed to be shipped the same distance. (Average shipment distances for each state are derived from hazardous waste shipped off-site, as reported in the Biennial Report database.)

IV. Key Analytical Limitations

The primary analytical limitations are associated with our estimate of the availability of on-site boilers, and our estimate of ECF qualifying for the exclusion. Nationwide data are not available to indicate whether each affected generating facility has a boiler on-site that can burn ECF. Using the NEI data, we made a determination of whether an eligible boiler is located at each facility. This determination may misrepresent which boilers could burn ECF and which boilers could not. To estimate how much hazardous secondary material qualifies as ECF, we used the ACC survey data, and data derived from the NHWCS. The data presented in the NHWCS are the most comprehensive nationwide data available. However, these data are from 1993, and may not fully reflect the characteristics of today's hazardous secondary materials.

V. Findings

This rule is projected to result in a benefit to society in the form of net cost savings to the private sector, on a nationwide basis, thereby allowing for the more efficient use of limited resources elsewhere in the economy. This is accomplished without compromising protection of human health and the environment by ensuring comparable emissions from the burning of high Btu value hazardous secondary materials.

The total net social benefits projected as a result of this rule are estimated at $13.4 million per year. Avoided waste management and fuel costs represent the vast majority of all benefits (cost savings). Transportation, boiler retrofits, and burner storage costs represent the majority of the costs. This estimate assumes all 50 states adopt the rule, which is unlikely to occur. As a sensitivity analysis, we estimated impacts to only those 16 states that have statutes prohibiting them from promulgating standards that are more stringent than the Federal regulations or with statutes that require additional legislative action to enact standards more stringent than the Federal regulations. The total net social benefits under this scenario are estimated at $10.1 million per year.

Approximately 222,500 tons (U.S. short tons) of currently-classified hazardous secondary materials are expected to qualify for the exclusion with approximately 118,500 tons/year actually excluded. Of the excluded total, our data indicate that approximately 48,900 tons are not burned for energy recovery in the baseline. Of this total, the vast majority is reported under BR management code H040—Incineration for thermal destruction other than use as a fuel.[114]

We also analyzed the two primary regulatory options considered by the Agency.[115] Annual net social benefits

[109] U.S. EPA, 2005 National Biennial Report, database and supporting documentation available for download at *http://www.epa.gov/epaoswer/hazwaste/data/biennialreport/*

[110] U.S. EPA, National Hazardous Waste Constituent Survey, database and supporting documentation available for download at *http://www.epa.gov/epaoswer/hazwaste/id/hwirwste/economic.html*

[111] U.S. EPA, 2002 National Emissions Inventory, databases and supporting documentation available for download at *http://www.epa.gov/ttn/chief/net/2002inventory.html*

[112] American Chemistry Council (ACC) voluntary membership survey of waste generation and management.

[113] USEPA, "Draft Technical Support Document for Expansion of the Comparable Fuel Exclusion," May 2007, Section 7.

[114] We note that the BR does not identify a management method code for wastes that are combusted in an incinerator and where the heating value of the wastes is used beneficially in lieu of fossil or other fuels to combust other waste with little or no heating value. Thus, it is probable that the vast majority of the waste that we identify as likely to be excluded as ECF, and which is currently combusted in incinerators, is currently being burned for energy recovery.

[115] Alternative Option A would impose conditions that are less stringent than those under the final rule (e.g., boiler operator training would

under the first option (less stringent requirements) were found to be $14.1 million. The additional cost savings primarily reflect reduced burner and generator storage requirements. Under the second option (more stringent requirements), net social benefits are estimated at $10.9 million per year. The reduced net benefits are largely reflected in increased burner storage requirements and greater tracking costs. Reduced fuel and management costs account for the vast majority of all cost savings under both options, as with the final rule. Under these two options, generators are projected to exclude an estimated 100,200 to 118,800 tons of ECF per year, out of the 222,500 tons/year qualifying.

We believe that it is important to not only understand the change in economic efficiency, as presented above, but to also understand the primary distributional effects associated with this change. Hazardous waste commercial incinerators and cement kilns are projected to experience impacts associated with this action. These effects include revenue losses and fuel replacement costs for cement kilns, plus revenue increases for commercial incinerators. Commercial kilns and blenders are projected to experience estimated revenue losses ranging from $3.2 to $6.5 million per year, while commercial incinerators may experience revenue changes from a decrease of $0.4 million to an increase of approximately $2.8 million per year. The losses for cement kilns represent less than 1 percent of the current annual waste management revenues earned by these facilities. In addition, the shift of ECF and hazardous wastes with which ECF is currently blended away from commercial kilns represents a fuel loss to these facilities. We estimate that the annual cost of replacing this hazardous waste fuel is approximately $1.7 to 2.9 million per year.

Although impacts to these groups may be considered a cost in accounting terms, they do not represent a real resource cost of the rule. The actual net benefits of this action reflect the impacts to these groups to the extent that there are real resource impacts, but do not include transfers from one facility to another.

not be required; dikes and berms would be allowed for secondary containment for tanks rather than a liner, double-wall, or vault). Alternative Option B would impose conditions that are more stringent than those under the final rule (e.g., closure and financial requirements for storage units; manifests for shipments). See USEPA, "Assessment of the Potential Costs, Benefits, and other Impacts of the Expansion of the RCRA Comparable Fuel Exclusion," April 2008, Exhibit ES–1.

The findings presented here reflect numerous analytical assumptions and limitations. Furthermore, we have analyzed additional scenarios and sensitivity analyses that are not presented in this Preamble. Readers wishing to gain a full understanding of our analytical methodology, data, findings, assumptions, and limitations are encouraged to read the *Assessment* document prepared in support of this final rule, and available in the Docket to this rule.

Part Seven: Statutory and Executive Order Reviews

I. Executive Order 12866: Regulatory Planning and Review

Under Executive Order (EO) 12866 (58 FR 51735, October 4, 1993), this action is a "significant regulatory action," since this action may raise novel legal or policy issues [3(f)(4)]. Accordingly, EPA submitted this action to the Office of Management and Budget (OMB) for review under EO 12866. Any changes made in response to OMB recommendations have been documented in the docket for this action.

This rule is projected to result in benefits to society in the form of cost savings. The total net cost savings are estimated at $13.4 million per year. This figure is significantly below the $100 million threshold [116] established under part 3(f)(1) of the Order. Thus, this rule is not considered to be an economically significant action. However, in an effort to comply with the spirit of the Executive Order, we have prepared an economic assessment in support of this action. This document is entitled: *Assessment of the Potential Costs, Benefits, and Other Impacts of the Expansion of the RCRA Comparable Fuel Exclusion-Final Rule.* The RCRA docket established for this rulemaking maintains a copy of this *Assessment* for public review. Interested persons are encouraged to read this document.

II. Paperwork Reduction Act

The information collection requirements in this rule have been submitted for approval to OMB under the *Paperwork Reduction Act*, 44 U.S.C. 3501 *et seq.* The information collection requirements are not enforceable until OMB approves them.

The information under this rule is planned to be collected in order to ensure that the conditions of the exclusion from RCRA under 40 CFR 261.38 are being met. The responses to the collection of information are mandatory under 40 CFR 261.38, and are necessary for EPA to fulfill its congressional mandate to protect public health and the environment. The information will, however, be collected only to the extent necessary for the implementation of this rule, and will not collect any information related to the trade secrets of the stakeholders. EPA will protect from public disclosure all confidential business information obtained under this rule.

This promulgated rule is deregulatory. The 64 respondents generating and burning excluded ECF would be subject to an annual public reporting and recordkeeping burden for the collection of information required under this rule of 37,373 hours, and a capital, and operation and maintenance cost of $1.4 million. However, because the excluded fuel would no longer be considered hazardous waste, the generator would not be required to comply with the paperwork, reporting, and recordkeeping requirements under the Subtitle C hazardous wastes regulations. Therefore, the reporting and recordkeeping burden associated with ECF would result in a net annual reduction of 32,899 hours and savings of $1.3 million in capital, and operation and maintenance costs. The frequency of responses varies with the type of response. Burden is defined at 5 CFR 1320.3(b).

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

III. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act, or any other statute, unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

The RFA provides default definitions for each type of small entity. Small entities are defined as: (1) A small business as defined by the Small

[116] This $100 million threshold applies to both costs, and cost savings.

Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of this final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. In determining whether a rule has a significant economic impact on a substantial number of small entities, the impact of concern is any significant *adverse* economic impact on small entities, since the primary purpose of the regulatory flexibility analyses is to identify and address regulatory alternatives "which minimize any significant economic impact of the rule on small entities," 5 U.S.C. 603 and 604. Thus, an agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, or otherwise has a positive economic effect on all of the small entities subject to the rule. We have determined that the affected ECF generators are not owned by small governmental jurisdictions or nonprofit organizations. Therefore, only small businesses were analyzed for small entity impacts. For the purposes of the impact analyses, small entity is defined either by the number of employees or by the dollar amount of sales. The level at which a business is considered small is determined for each North American Industrial Classification System (NAICS) code by the Small Business Administration.

This rule is projected to result in benefits in the form of cost savings to companies that use the exclusion. As a result, the rule would not result in adverse impacts for any small businesses that generate ECF. Our analysis indicates that one or two cement kilns may be owned by small businesses, as defined by the SBA for the relevant NAICS code. Lost revenue plus fuel replacement costs to these facilities have been found to represent less than 3% of the average annual waste receipt revenues to these facilities, and considerably less impacts when clinker/cement revenues are included. As a result, these impacts are not significant. Furthermore, these impacts are not a direct economic impact of the rule.

The reader is encouraged to review our regulatory flexibility screening analysis prepared in support of this determination. This analysis is incorporated into the *Assessment* document, which is available in the Docket to this final rule.

IV. Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, 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 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.

This final rule contains no Federal mandates (under the regulatory provisions of Title II of the UMRA) for State, local, or tribal governments or the private sector. The UMRA generally excludes from the definition of "Federal intergovernmental mandate" duties that arise from participation in a voluntary federal program. This rule is a voluntary program because the States are not required to adopt these requirements as a condition of authorization (or otherwise). In any event, EPA has determined that this rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any one year. The total net benefits (cost savings) of this action are estimated to be $13.4 million per year.

Finally, EPA has determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments. Small governments are not affected by this action.

V. Executive Order 13132: Federalism

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

This final rule does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. The rule focuses on modified requirements for facilities generating ECF, without affecting the relationships between Federal and state governments. Thus, Executive Order 13132 does not apply to this rule.

Although section 6 of Executive Order 13132 does not apply, EPA did consult with representatives of state governments in developing this rule. Representatives from the states of North Carolina, Georgia, Missouri, Louisiana, and Oregon provided valuable input and review.

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

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." This final rule does not have tribal implications, as specified in

Executive Order 13175. No Tribal governments are known to own or operate facilities generating or burning hazardous secondary materials subject to this rule. Thus, Executive Order 13175 does not apply to this rule.

VII. EO 13045 "Protection of Children From Environmental Health Risks and Safety Risks"

This action is not subject to Executive Order 13045 (62 F.R. 19885, April 23, 1997) because it is not economically significant as defined in Executive Order 12866, and because the Agency does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. A health and risk assessment in support of this action is unnecessary due to the comparable emission nature of this action.

VIII. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This rule is not subject to Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355 (May 22, 2001)) because it is not a significant regulatory action under Executive Order 12866.

This rule will not seriously disrupt energy supply, distribution patterns, prices, imports or exports. Furthermore, this rule is designed to improve economic efficiency by expanding the use of fuels that are hazardous secondary materials.

IX. National Technology Transfer Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law 104–113, 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This rulemaking involves environmental monitoring or measurement. Consistent with the Agency's Performance Based Measurement System ("PBMS"), EPA has decided not to require the use of specific, prescribed analytic methods. Rather, the rule will allow the use of any method that meets the prescribed performance criteria. The PBMS approach is intended to be more flexible and cost-effective for the regulated community; it is also intended to encourage innovation in analytical technology and improved data quality. EPA is not precluding the use of any method, whether it constitutes a voluntary consensus standard or not, as long as it meets the performance criteria specified.

X. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.

Executive Order (EO) 12898 (59 FR 7629 (Feb. 16, 1994)) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

EPA has determined that this final rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it does not affect the level of protection provided to human health or the environment. This rule is designed to allow for the use of hazardous secondary materials as fuel under a comparable emission standard, resulting in no incremental increase in risk to human health and the environment, when compared to the burning of virgin fuels.

XI. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A Major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2). This rule will be effective January 20, 2009.

List of Subjects in 40 CFR Part 261

Hazardous waste, Recycling, Reporting and recordkeeping requirements.

Dated: December 12, 2008.

Stephen L. Johnson,

Administrator.

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

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

■ 1. The authority citation for part 261 continues to read as follows:

Authority: 42 U.S.C. 6903, 6912(b), 6925.

■ 2. Section 261.4 is amended by revising paragraph (a)(16) to read as follows:

§ 261.4 Exclusions.

(a) * * *

(16) Comparable fuels, emission-comparable fuels, or comparable syngas fuels that meet the requirements of § 261.38.

* * * * *

■ 3. Section 261.38 is revised to read as follows:

§ 261.38 Exclusion of comparable fuel, emission-comparable fuel, and syngas fuel.

(a) *Specifications for excluded fuels.* Materials that meet the specifications for comparable fuel, emission-comparable fuel, or syngas fuel under paragraphs (a)(1), (a)(2), or (a)(3) of this section, respectively, and the other requirements of this section, are not solid wastes.

(1) *Comparable fuel specifications.*—(i) *Physical specifications.*—(A) *Heating value.* The heating value must exceed 5,000 BTU/lbs. (11,500 J/g).

(B) *Viscosity.* The viscosity must not exceed: 50 cs, as-fired.

(ii) *Constituent specifications.* For compounds listed in Table 1 to this section, the specification levels and, where non-detect is the specification, minimum required detection limits are: (*see* Table 1 of this section).

(2) *Emission-comparable fuel specifications*—The specifications shall be met as-generated. (i) *Physical specifications.*—(A) *Heating value.* The heating value must be 8,000 BTU/lbs (18,400 J/g) or greater.

(B) *Viscosity.* The viscosity must not exceed 50 cs.

(ii) *Constituent specifications*—(A) Except as provided by paragraph (a)(2)(ii)(B) of this section, for

compounds listed in Table 1 of this section the specification levels and, where nondetect is the specification, minimum required detection limits, are: (*see* Table 1 of this section).

(B) *Specifications not applicable.* The specification levels in Table 1 to this section do not apply for the following hydrocarbons and oxygenates under the special conditions provided under this section for emission-comparable fuel:

(*1*) Benzo(a)anthracene (CAS No. 56–55–3).

(*2*) Benzene (CAS No. 71–43–2).

(*3*) Benzo(b)fluoranthene (CAS No. 205–99–2)

(*4*) Benzo(k)fluoranthene (CAS No. 207–08–9)

(*5*) Benzo(a)pyrene (CAS No. 50–32–8)

(*6*) Chrysene (CAS No. 218–01–9)

(*7*) Dibenzo(a,h)anthracene (CAS No. 52–70–3)

(*8*) 7,12–Dimethylbenz(a)anthracene (CAS No. 57–97–6)

(*9*) Flouranthene (CAS No. 206–44–0)

(*10*) Indeno(1,2,3-cd)pyrene (CAS No. 193–39–5)

(*11*) 3-Methlycholanthrene (CAS No. 56–49–5)

(*12*) Naphthalene (CAS No. 91–20–3)

(*13*) Toluene (CAS No. 108–88–3).

(*14*) Acetophenone (CAS No. 98–86–2).

(*15*) Acrolein (CAS No. 107–02–8).

(*16*) Allyl alcohol (CAS No. 107–18–6).

(*17*) Bis(2-ethylhexyl)phthalate [Di-2-ethylhexyl phthalate] (CAS No.117–81–7).

(*18*) Butyl benzyl phthalate (CAS No. 85–68–7).

(*19*) o-Cresol [2-Methyl phenol] (CAS No. 95–48–7).

(*20*) m-Cresol [3-Methyl phenol] (CAS No. 108–39–4).

(*21*) p-Cresol [4-Methyl phenol] (CAS No.106–44–5).

(*22*) Di-n-butyl phthalate (CAS No. 84–74–2).

(*23*) Diethyl phthalate (CAS No. 84–66–2).

(*24*) 2,4-Dimethylphenol (CAS No. 105–67–9).

(*25*) Dimethyl phthalate (CAS No. 131–11–3).

(*26*) Di-n-octyl phthalate (CAS No. 117–84–0).

(*27*) Endothall (CAS No. 145–73–3).

(*28*) Ethyl methacrylate (CAS No. 97–63–2).

(*29*) 2-Ethoxyethanol [Ethylene glycol monoethyl ether] (CAS No. 110–80–5).

(*30*) Isobutyl alcohol (CAS No. 78–83–1).

(*31*) Isosafrole (CAS No. 120–58–1).

(*32*) Methyl ethyl ketone [2-Butanone] (CAS No. 78–93–3).

(*33*) Methyl methacrylate (CAS No. 80–62–6).

(*34*) 1,4-Naphthoquinone (CAS No. 130–15–4).

(*35*) Phenol (CAS No. 108–95–2).

(*36*) Propargyl alcohol [2-Propyn-1-ol] (CAS No. 107–19–7).

(*37*) Safrole (CAS No. 94–59–7).

(3) *Synthesis gas fuel specifications.*— Synthesis gas fuel (*i.e.*, syngas fuel) that is generated from hazardous waste must:

(i) Have a minimum Btu value of 100 Btu/Scf;

(ii) Contain less than 1 ppmv of total halogen;

(iii) Contain less than 300 ppmv of total nitrogen other than diatomic nitrogen (N_2);

(iv) Contain less than 200 ppmv of hydrogen sulfide; and

(v) Contain less than 1 ppmv of each hazardous constituent in the target list of appendix VIII constituents of this part.

(4) *Blending to meet the specifications. (i) Comparable fuel.* (A) Hazardous waste shall not be blended to meet the comparable fuel specification under paragraph (a)(1) of this section, except as provided by paragraph (a)(4)(i)(B) of this section:

(B) *Blending to meet the viscosity specification.* A hazardous waste blended to meet the viscosity specification for comparable fuel shall:

(*1*) As generated and prior to any blending, manipulation, or processing, meet the constituent and heating value specifications of paragraphs (a)(1)(i)(A) and (a)(1)(ii) of this section;

(*2*) Be blended at a facility that is subject to the applicable requirements of parts 264 and 265, or § 262.34 of this chapter; and

(*3*) Not violate the dilution prohibition of paragraph (a)(7) of this section.

(ii) *Emission-comparable fuel.* Hazardous waste shall not be treated by blending or other means to meet the emission-comparable fuel specifications under paragraph (a)(2) of this section. Emission-comparable fuel must meet those specifications as-generated by the original generator of the material. Emission-comparable fuel that has met the specifications under paragraph (a)(2) of this section as-generated, and that is subsequently commingled with other materials, must continue to meet the specifications.

(5) *Treatment to meet the comparable fuel specifications.* (i) A hazardous waste may be treated to meet the specifications for comparable fuel under paragraph (a)(1) of this section provided the treatment:

(A) Destroys or removes the constituent listed in the specification or raises the heating value by removing or destroying hazardous constituents or materials;

(B) Is performed at a facility that is subject to the applicable requirements of parts 264 and 265, or § 262.34 of this chapter; and

(C) Does not violate the dilution prohibition of paragraph (a)(7) of this section.

(ii) Residuals resulting from the treatment of a hazardous waste listed in subpart D of this part to generate a comparable fuel remain a hazardous waste.

(6) *Generation of a syngas fuel.* (i) A syngas fuel can be generated from the processing of hazardous wastes to meet the exclusion specifications of paragraph (a)(3) of this section provided the processing:

(A) Destroys or removes the constituent listed in the specification or raises the heating value by removing or destroying constituents or materials;

(B) Is performed at a facility that is subject to the applicable requirements of parts 264 and 265, or § 262.34 of this chapter or is an exempt recycling unit pursuant to § 261.6(c); and

(C) Does not violate the dilution prohibition of paragraph (a)(7) of this section.

(ii) Residuals resulting from the treatment of a hazardous waste listed in subpart D of this part to generate a syngas fuel remain a hazardous waste.

(7) *Dilution prohibition for comparable fuel, emission-comparable fuel, and syngas fuel.* (i) *Comparable fuel and syngas fuel.* No generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility shall in any way dilute a hazardous waste to meet the specifications of paragraphs (a)(1)(i)(A) or (a)(1)(ii) of this section for comparable fuel or paragraph (a)(3) of this section for syngas.

(ii) *Emission-comparable fuel.* Emission-comparable fuel shall not be generated by means of dilution.

(b) *Implementation.*—(1) *General.*—(i) Materials that meet the specifications provided by paragraph (a) of this section for comparable fuel, emission-comparable fuel, or syngas fuel are excluded from the definition of solid waste provided that the conditions under this section are met. For purposes of this section, such materials are called excluded fuel, and the person claiming and qualifying for the exclusion is called the excluded fuel generator and the person burning the excluded fuel is called the excluded fuel burner.

(ii) The person who generates the excluded fuel must claim the exclusion by compliance with the conditions of this section and keep records necessary to document compliance with those conditions.

(2) *Notices.* (i) *Notices to State RCRA and CAA Directors in authorized States or regional RCRA and CAA Directors in unauthorized States.* (A) The generator must submit a one-time notice, except as provided by paragraph (b)(2)(i)(C) of this section, to the Regional or State RCRA and CAA Directors, in whose jurisdiction the exclusion is being claimed and where the excluded fuel will be burned, certifying compliance with the conditions of the exclusion and providing the following documentation:

(1) The name, address, and RCRA ID number of the person/facility claiming the exclusion;

(2) The applicable EPA Hazardous Waste Codes that would otherwise apply to the excluded fuel;

(3) The name and address of the units meeting the requirements of paragraphs (b)(3) and (c) of this section, that will burn the excluded fuel;

(4) An estimate of the average and maximum monthly and annual quantity of material for which an exclusion would be claimed, except as provided by paragraph (b)(2)(i)(D) of this section; and

(5) The following statement, which shall be signed and submitted by the person claiming the exclusion or his authorized representative:

Under penalty of criminal and civil prosecution for making or submitting false statements, representations, or omissions, I certify that the requirements of 40 CFR 261.38 have been met for all emission-comparable fuel/comparable fuel (specify which) identified in this notification. Copies of the records and information required at 40 CFR 261.38(b)(8) are available at the generator's facility. Based on my inquiry of the individuals immediately responsible for obtaining the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(B) Generators of emission-comparable fuel must also include in the notices:

(1) An estimate of the annual quantity of each material for which an emission-comparable fuel exclusion would be claimed; and

(2) An estimate of the maximum concentration of each compound in Table 2 to this section in each emission-comparable fuel stream for which the fuel exceeds the comparable fuel specifications for those compounds in Table 1 to this section.

(C) If there is a substantive change in the information provided in the notice required under this paragraph (b)(2)(i), the generator must submit a revised notification.

(D) Comparable fuel and syngas fuel generators must include an estimate of the average and maximum monthly and annual quantity of material for which an exclusion would be claimed only in notices submitted after December 19, 2008 for newly excluded comparable fuel or syngas fuel or for revised notices as required by paragraph (b)(2)(i)(C) of this section.

(ii) *Public notice.* Prior to burning an excluded fuel, the burner must publish in a major newspaper of general circulation local to the site where the fuel will be burned, a notice entitled "Notification of Burning a Fuel Excluded Under the Resource Conservation and Recovery Act" and containing the following information:

(A) Name, address, and RCRA ID number of the generating facility(ies);

(B) Name and address of the burner and identification of the unit(s) that will burn the excluded fuel;

(C) A brief, general description of the manufacturing, treatment, or other process generating the excluded fuel;

(D) An estimate of the average and maximum monthly and annual quantity of the excluded fuel to be burned; and

(E) Name and mailing address of the Regional or State Directors to whom the generator submitted a claim for the exclusion.

(3) *Burning.* (i) *Comparable fuel and syngas fuel.* The exclusion for fuels meeting the specifications under paragraphs (a)(1) or (a)(3) of this section applies only if the fuel is burned in the following units that also shall be subject to Federal/State/local air emission requirements, including all applicable requirements implementing Section 112 of the Clean Air Act:

(A) Industrial furnaces as defined in § 260.10 of this chapter;

(B) Boilers, as defined in § 260.10 of this chapter, that are further defined as follows:

(*1*) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes; or

(*2*) Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale;

(C) Hazardous waste incinerators subject to regulation under subpart O of parts 264 or 265 of this chapter or applicable CAA MACT standards.

(D) Gas turbines used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale.

(ii) *Emission-comparable fuel.* The exclusion for fuel meeting the specifications under paragraph (a)(2) of this section applies only if the fuel is burned under the conditions provided by paragraph (c) of this section.

(4) *Fuel analysis plan for generators.* The generator of an excluded fuel shall develop and follow a written fuel analysis plan which describes the procedures for sampling and analysis of the material to be excluded. The plan shall be followed and retained at the site of the generator claiming the exclusion.

(i) At a minimum, the plan must specify:

(A) The parameters for which each excluded fuel will be analyzed and the rationale for the selection of those parameters;

(B) The test methods which will be used to test for these parameters;

(C) The sampling method which will be used to obtain a representative sample of the excluded fuel to be analyzed;

(D) The frequency with which the initial analysis of the excluded fuel will be reviewed or repeated to ensure that the analysis is accurate and up to date; and

(E) If process knowledge is used in the determination, any information prepared by the generator in making such determination.

(ii) For each analysis, the generator shall document the following:

(A) The dates and times that samples were obtained, and the dates the samples were analyzed;

(B) The names and qualifications of the person(s) who obtained the samples;

(C) A description of the temporal and spatial locations of the samples;

(D) The name and address of the laboratory facility at which analyses of the samples were performed;

(E) A description of the analytical methods used, including any clean-up and sample preparation methods;

(F) All quantitation limits achieved and all other quality control results for the analysis (including method blanks, duplicate analyses, matrix spikes, etc.), laboratory quality assurance data, and the description of any deviations from analytical methods written in the plan or from any other activity written in the plan which occurred;

(G) All laboratory results demonstrating whether the exclusion specifications have been met; and

(H) All laboratory documentation that support the analytical results, unless a contract between the claimant and the laboratory provides for the documentation to be maintained by the laboratory for the period specified in paragraph (b)(9) of this section and also provides for the availability of the documentation to the claimant upon request.

(iii) Syngas fuel generators shall submit for approval, prior to performing sampling, analysis, or any management of an excluded syngas fuel, a fuel analysis plan containing the elements of paragraph (b)(4)(i) of this section to the appropriate regulatory authority. The approval of fuel analysis plans must be stated in writing and received by the facility prior to sampling and analysis to demonstrate the exclusion of a syngas. The approval of the fuel analysis plan may contain such provisions and conditions as the regulatory authority deems appropriate.

(5) *Analysis plans for burners of emission-comparable fuel.* An emission-comparable fuel burner is subject to the fuel analysis plan requirements under paragraph (b)(4) of this section to determine, for each fuel fed to the boiler when burning emission-comparable fuel, the as-fired heating value and the as-fired concentration of each compound listed in paragraph (a)(2)(ii)(B) of this section, except for fuels under the situations described below:

(i) Coal or fuel oil used as primary fuels, when the burner uses the heating values and compound concentrations for these fuels provided in paragraph (c)(2)(ii)(C) of this section and Tables 3 and 4 to § 261.38;

(ii) Emission-comparable fuel, when the burner receives documentation of this information from the generator for each shipment of emission-comparable fuel, provided that the emission-comparable fuel is not blended with other fuels before firing to the burner.

(iii) Emission-comparable fuel, when the burner receives documentation of this information from the generator for each shipment of emission-comparable fuel, and the emission-comparable fuel is blended with other fuels before firing to the burner, provided that:

(A) The burner has determined the heating value of the other fuels and the concentration of each compound listed in paragraph (a)(2)(ii)(B) of this section for the other fuels; and;

(B) The burner determines by calculation the as-fired heating value of the blended emission-comparable fuel and the as-fired concentration of each compound listed in paragraph (a)(2)(ii)(B) of this section of the blended emission-comparable fuel.

(6) *Excluded fuel sampling and analysis.* (i) *General.* For comparable fuel, emission-comparable fuel, and syngas for which an exclusion is claimed under the specifications provided by paragraphs (a)(1), (a)(2), or (a)(3) of this section, the generator of the material must test for all the constituents in appendix VIII to this part, except those that the generator determines, based on testing or knowledge, should not be present in the fuel. The generator is required to document the basis of each determination that a constituent with an applicable specification should not be present. The generator may not determine that any of the following categories of constituents with a specification in Table 1 to this section should not be present:

(A) A constituent that triggered the toxicity characteristic for the constituents that were the basis for listing the hazardous secondary material as a hazardous waste, or constituents for which there is a treatment standard for the waste code in 40 CFR 268.40;

(B) A constituent detected in previous analysis of the material;

(C) Constituents introduced into the process that generates the material; or

(D) Constituents that are byproducts or side reactions to the process that generates the material.

Note to paragraph (b)(6)(i): Any claim under this section must be valid and accurate for all hazardous constituents; a determination not to test for a hazardous constituent will not shield a generator from liability should that constituent later be found in the fuel/syngas above the exclusion specifications.

(ii) *Use of process knowledge.* (A) *Comparable fuel and syngas.* For each material for which the comparable fuel or syngas exclusion is claimed where the generator of the excluded fuel is not the original generator of the hazardous waste, the generator of the excluded fuel may not use process knowledge pursuant to paragraph (b)(6)(i) of this section and must test to determine that all of the constituent specifications of paragraphs (a)(1) and (a)(3) of this section, as applicable, have been met.

(B) *Emission-comparable fuel.* Emission-comparable fuel must meet the specifications for exclusion as-generated. Thus, the generator may use process knowledge to determine that compounds listed in Appendix VIII to this part are not present in the emission-comparable fuel.

(iii) The excluded fuel generator may use any reliable analytical method to demonstrate that no constituent of concern is present at concentrations above the specification levels. It is the responsibility of the generator to ensure that the sampling and analysis are unbiased, precise, and representative of the excluded fuel. For the fuel to be eligible for exclusion, a generator must demonstrate that:

(A) The 95% upper confidence limit of the mean concentration for each constituent of concern is not above the specification level; and

(B) The analyses could have detected the presence of the constituent at or below the specification level.

(iv) Nothing in this paragraph (b)(6) preempts, overrides or otherwise negates the provision in § 262.11 of this chapter, which requires any person who generates a solid waste to determine if that waste is a hazardous waste.

(v) In an enforcement action, the burden of proof to establish conformance with the exclusion specification shall be on the generator claiming the exclusion.

(vi) The generator must conduct sampling and analysis in accordance with the fuel analysis plan developed under paragraph (b)(4) of this section.

(vii) *Viscosity condition for comparable fuel.* (A) Excluded comparable fuel that has not been blended to meet the kinematic viscosity specification shall be analyzed as-generated.

(B) If hazardous waste is blended to meet the kinematic viscosity specification for comparable fuel, the generator shall:

(1) Analyze the hazardous waste as-generated to ensure that it meets the constituent and heating value specifications of paragraph (a)(1) of this section; and

(2) After blending, analyze the fuel again to ensure that the blended fuel meets all comparable fuel specifications.

(viii) Excluded fuel must be re-tested, at a minimum, annually and must be retested after a process change that could change its chemical or physical properties in a manner that may affect conformance with the specifications.

(ix) An emission-comparable fuel burner must determine, for each fuel fired to the burner, the as-fired heating value of the emission-comparable fuel and the as-fired concentration of each compound listed in paragraph (a)(2)(ii)(B) of this section using information provided by the generator, information provided by paragraph (c)(2)(ii)(C) of this section and Tables 3 and 4 to this section, by sampling and analysis, or by calculation when emission-comparable fuel is commingled with other fuels and the heating value of the emission comparable fuel and the concentration of each compound listed in paragraph (a)(2)(ii)(B) of this section is known for the fuels prior to commingling.

(7) *Speculative accumulation.* Excluded fuel must not be accumulated speculatively, as defined in § 261.1(c)(8).

(8) *Operating record.* The generator must maintain an operating record on

site containing the following information:

(i) All information required to be submitted to the implementing authority as part of the notification of the claim:

(A) The owner/operator name, address, and RCRA ID number of the person claiming the exclusion;

(B) For each excluded fuel, the EPA Hazardous Waste Codes that would be applicable if the material were discarded; and

(C) The certification signed by the person claiming the exclusion or his authorized representative.

(ii) A brief description of the process that generated the excluded fuel. If the comparable fuel generator is not the generator of the original hazardous waste, provide a brief description of the process that generated the hazardous waste;

(iii) The monthly and annual quantities of each fuel claimed to be excluded;

(iv) Documentation for any claim that a constituent is not present in the excluded fuel as required under paragraph (b)(6) of this section;

(v) The results of all analyses and all detection limits achieved as required under paragraph (b)(4) of this section;

(vi) If the comparable fuel was generated through treatment or blending, documentation of compliance with the applicable provisions of paragraphs (a)(4) and (a)(5) of this section;

(vii) If the excluded fuel is to be shipped off-site, a certification from the burner as required under paragraph (b)(10) of this section;

(viii) The fuel analysis plan and documentation of all sampling and analysis results as required by paragraph (b)(4) of this section; and

(ix) If the generator ships excluded fuel off-site for burning, the generator must retain for each shipment the following information on-site:

(A) The name and address of the facility receiving the excluded fuel for burning;

(B) The quantity of excluded fuel shipped and delivered;

(C) The date of shipment or delivery;

(D) A cross-reference to the record of excluded fuel analysis or other information used to make the determination that the excluded fuel meets the specifications as required under paragraph (b)(4) of this section; and

(E) A one-time certification by the burner as required under paragraph (b)(10) of this section.

(9) *Records retention.* Records must be maintained for a period of three years.

(10) *Burner certification to the generator.*—(i) *Comparable fuel and syngas fuel.* Prior to submitting a notification to the State and Regional Directors, a generator of comparable fuel or syngas fuel excluded under paragraphs (a)(1) or (a)(3) of this section who intends to ship the excluded fuel off-site for burning must obtain a one-time written, signed statement from the burner:

(A) Certifying that the excluded fuel will only be burned in an industrial furnace, industrial boiler, utility boiler, or hazardous waste incinerator, as required under paragraph (b)(3) of this section;

(B) Identifying the name and address of the facility that will burn the excluded fuel; and

(C) Certifying that the state in which the burner is located is authorized to exclude wastes as excluded fuel under the provisions of this section.

(ii) *Emission-comparable fuel.* Prior to submitting a notification to the State and Regional Directors, a generator of emission-comparable fuel who intends to ship the excluded fuel off-site for burning must obtain a one-time written, signed statement from the burner:

(A) Certifying that the excluded fuel will be stored under the conditions of paragraphs (c)(1) or (e) of this section and burned under the conditions of paragraph (c)(2) of this section, and that the burner will comply with the notification, reporting, and recordkeeping conditions of paragraph (c)(5) of this section;

(B) Identifying the name and address of the facility that will burn the excluded fuel; and

(C) Certifying that the state in which the burner is located is authorized to exclude wastes as excluded fuel under the provisions of this section.

(11) *Ineligible waste codes.* Wastes that are listed as hazardous waste because of the presence of dioxins or furans, as set out in appendix VII of this part, are not eligible for these exclusions, and any fuel produced from or otherwise containing these wastes remains a hazardous waste subject to full RCRA hazardous waste management requirements.

(12) *Regulatory status of boiler residues.* Burning excluded fuel that was otherwise a hazardous waste listed under §§ 261.31 through 261.33 does not subject boiler residues, including bottom ash and emission control residues, to regulation as derived-from hazardous wastes.

(13) *Residues in containers and tank systems upon cessation of operations.* (i) Liquid and accumulated solid residues that remain in a container or tank system for more than 90 days after the container or tank system ceases to be operated for storage or transport of excluded fuel product are subject to regulation under parts 262 through 265, 268, 270, 271, and 124 of this chapter.

(ii) Liquid and accumulated solid residues that are removed from a container or tank system after the container or tank system ceases to be operated for storage or transport of excluded fuel product are solid wastes subject to regulation as hazardous waste if the waste exhibits a characteristic of hazardous waste under §§ 261.21 through 261.24 or if the fuel were otherwise a hazardous waste listed under §§ 261.31 through 261.33 when the exclusion was claimed.

(iii) Liquid and accumulated solid residues that are removed from a container or tank system and which do not meet the specifications for exclusion under paragraphs (a)(1) or (a)(2) of this section are solid wastes subject to regulation as hazardous waste if:

(A) The waste exhibits a characteristic of hazardous waste under §§ 261.21 through 261.24; or

(B) If the fuel were otherwise a hazardous waste listed under §§ 261.31 through 261.33. The hazardous waste code for the listed waste applies to these liquid and accumulated solid resides.

(14) *Waiver of RCRA Closure Requirements.* Interim status and permitted storage and combustion units, and generator storage units exempt from the permit requirements under § 262.34 of this chapter, are not subject to the closure requirements of 40 CFR Parts 264, 265, and 267 provided that the storage and combustion unit has been used to manage only hazardous waste that is subsequently excluded under the conditions of this section, and that afterward will be used only to manage fuel excluded under this section.

(15) *Spills and leaks.* (i) Excluded fuel that is spilled or leaked and that therefore no longer meets the conditions of the exclusion is discarded and must be managed as a hazardous waste if it exhibits a characteristic of hazardous waste under §§ 261.21 through 261.24 or if the fuel were otherwise a hazardous waste listed in §§ 261.31 through 261.33.

(ii) For excluded fuel that would have otherwise been a hazardous waste listed in §§ 261.31 through 261.33 and which is spilled or leaked, the hazardous waste code for the listed waste applies to the spilled or leaked material.

(16) Nothing in this section preempts, overrides, or otherwise negates the provisions in CERCLA Section 103, which establish reporting obligations for releases of hazardous substances, or the

Department of Transportation requirements for hazardous materials in 49 CFR parts 171 through 180.

(c) *Special conditions for emission-comparable fuel.* The following additional conditions apply to emission-comparable fuel—fuel that meets the specifications under paragraph (a)(2) of this section.

(1) *Storage.* (i) *General.* Emission-comparable fuel may be stored in a container or tank under the conditions of paragraphs (c)(1)(iii) through (c)(1)(viii) of this section, or alternative conditions under paragraph (e) of this section.

(ii) *Prohibition on underground storage.* Emission-comparable fuel shall not be stored in an underground tank. An underground tank is a tank the volume of which (including the volume of underground pipes connecting thereto) is 10 percent or more beneath the surface of the ground.

(iii) *Spill prevention, control, and countermeasures (SPCC) requirements.* Emission-comparable fuel storage tanks and containers with a capacity equal to or greater than 0.1 m^3 (26 gallons) are subject to the following Spill Prevention, Control, and Countermeasures (SPCC) requirements adopted from 40 CFR Part 112. To satisfy the adopted conditions, you must substitute the term "emission-comparable fuel" for the term "oil," and by substituting the term "release of emission-comparable fuel to the environment" for the term "discharge as described in § 112.1(b)."

(A) Section 112.2, Definitions. These definitions apply to the adopted SPCC requirements under paragraphs (c)(1)(iii)(B) through (c)(1)(iii)(D) of this section.

(B) Sections 112.3(d) and 112.3(e) of this chapter, Requirement to Prepare and Implement a Spill Prevention, Control, and Countermeasure Plan. (*1*) You must prepare a SPCC Plan in writing, and in accordance with the adopted provisions of §§ 112.7 and 112.8 of this chapter;

(*2*) The SPCC Plan must be reviewed and certified according to the provisions of § 112.3(d) of this chapter and must be made available to the Regional Administrator according to the provisions of § 112.3(e) of this chapter;

(*3*) You must amend your SPCC Plan as directed by the Regional Administrator upon a finding that amendment is necessary to prevent and contain releases of emission-comparable fuel from your facility. You must implement the amended SPCC Plan as soon as possible, but not later than six months after you amend your SPCC Plan, unless the Regional Administrator specifies another date;

(C) Sections 112.5(a) and 112.5(b) of this chapter, Amendment of Spill Prevention, Control, and Countermeasures Plan by Owners or Operators. (*1*) You must comply with the provisions of § 112.5(a) and (b) of this chapter by substituting the term "release of emission-comparable fuel to the environment" for the term "discharge as described in § 112.1(b);"

(*2*) You must have a Professional Engineer certify any technical amendment to your Plan in accordance with § 112.3(d) of this chapter.

(D) Section 112.7 of this chapter, General Requirements for Spill Prevention, Control, and Countermeasure Plans. (*1*) You must comply with the requirements of § 112.7, except for paragraphs (a)(2), (c), (d), and (k) of that section.

(*2*) Your Plan may deviate from the requirements § 112.7(g), (h)(2), (h)(3) and (i), and the adopted provisions of § 112.8, where applicable to a specific facility, if you provide equivalent protection by some other means of spill prevention, control, or countermeasure. Where your Plan does not conform to the applicable requirements in § 112.7(g), (h)(2), (h)(3) and (i) and the adopted provisions of § 112.8 of this chapter, you must state the reasons for nonconformance in your Plan and describe in detail alternate methods and how you will achieve equivalent environmental protection. If the Regional Administrator determines that the measures described in your Plan do not provide equivalent environmental protection, he may require that you amend your Plan.

(E) Section 112.8 of this chapter, Spill Prevention, Control, and Countermeasure Plan Requirements for Onshore Facilities, except for paragraph (b) of this section (facility drainage), paragraph (c)(2) of this section (secondary containment for bulk storage containers), paragraph (c)(4) of this section (protection of completely buried storage tanks), and paragraph (c)(11) of this section (secondary containment for mobile containers), with the following revisions:

(*1*) You must inspect at least weekly areas where portable containers are stored to look for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors.

(*2*) Section 112.8(d)(1) of this chapter applies to all buried piping irrespective of the installation or replacement date.

(iv) *Containment and detection of releases*—(A) *Tanks.* To prevent the release of emission comparable fuel or hazardous constituents to the environment, you must provide secondary containment for emission-comparable fuel tank systems as prescribed by the following requirements adopted from § 264.193 of this chapter. To satisfy the adopted conditions, you must substitute the term "emission-comparable fuel" for the term "waste," and substitute the term "document in the record" for the term "demonstrate to the Regional Administrator."

(*1*) Section 264.193(b) of this chapter, which prescribes general performance standards for secondary containment systems;

(*2*) Section 264.193(c) of this chapter, which prescribes minimum requirements for secondary containment systems;

(*3*) Section 264.193(d)(1) through (3), which prescribes permissible secondary containment devices;

(*4*) Section 264.193(e) of this chapter, which prescribes design and operating requirements for the permissible secondary containment devices; and

(*5*) Section 264.193(f) of this chapter, which prescribes secondary containment requirements for ancillary equipment.

(B) *Portable containers.* To prevent the release of emission comparable fuel or hazardous constituents to the environment, you must provide containment for emission-comparable fuel container storage units as prescribed by the provisions of § 264.175(b) of this chapter, which are hereby adopted for emission-comparable fuel container storage units. To satisfy the adopted condition, you must substitute the term "emission-comparable fuel" for each occurrence of the term "waste."

(v) *Preparedness and prevention, emergency procedures and response to releases.*—(A) *Preparedness and prevention.*—(*1*) *Required equipment.* Your facility must be equipped with the equipment required under § 264.32(a) through (d) of this chapter in a manner that it can be used in emergencies associated with storing and handling emission-comparable fuel.

(*2*) *Testing and maintenance of equipment.* You must test and maintain as necessary to assure proper operation in times of emergency all communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment required for your emission-comparable fuel tank system or container storage unit.

(*3*) *Access to communications or alarm system.* Whenever emission comparable fuel is distributed into or

out of the tank system or container storage unit, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee.

(*4*) *Arrangements with local authorities.* You must comply with § 264.37(a) of this chapter. If state or local authorities decline to enter into the arrangements prescribed by § 264.37(a) of this chapter, you must keep a record documenting the refusal.

(B) *Emergency procedures.*—(*1*) *Emergency coordinator.* At all times, there must be at least one employee either on the facility premises or on call (*i.e.*, available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's Spill Prevention, Control, and Countermeasures (SPCC) Plan required under paragraph (c)(1)(iii) of this section, all emission-comparable fuel operations and activities at the facility, the location and characteristics of emission-comparable fuel handled, the location of all records within the facility pertaining to emission-comparable fuel, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the SPCC Plan.

(*2*) *Emergency procedures.*—(*i*) Whenever there is an imminent or actual emergency situation relating to the emission-comparable fuel tank system or container storage unit, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately activate internal facility alarms or communication systems, where applicable, to notify all facility personnel and notify appropriate state or local agencies with designated response roles if their help is needed.

(*ii*) Whenever there is a release, fire, or explosion relating to the emission-comparable fuel tank system or container storage unit, the emergency coordinator must immediately identify the character, exact source, amount, and aerial extent of any released materials. He may do this by observation or review of facility records, and, if necessary, by chemical analysis.

(*iii*) Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (*e.g.*, the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions).

(*iv*) If the emergency coordinator determines that the facility has had a release, fire, or explosion associated with the emission-comparable fuel tank system or container storage unit which could threaten human health or the environment outside the facility, he must report his findings as provided by paragraph (c)(1)(v)(B)(*2*)(*v*) of this section.

(*v*) If the emergency coordinator's assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated, and he must immediately notify either the government official designated as the on-scene coordinator for that geographical area, (in the applicable regional contingency plan under part 300 of this title) or the National Response Center (using their 24-hour toll free number 800/424–8802). The report must include: the name and telephone number of the reporter; the name and address of the facility; the time and type of incident (*e.g.*, release, fire); the name and quantity of material(s) involved, to the extent known; the extent of injuries, if any; and the possible hazards to human health, or the environment, outside the facility.

(*vi*) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other materials at the facility. These measures must include, where applicable, stopping processes and operations and collecting and containing released emission-comparable fuel.

(*vii*) If the emission-comparable fuel tank system or container storage unit stops operations in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(*viii*) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered emission-comparable fuel, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

(*ix*) The emergency coordinator must ensure that, in the affected area(s) of the facility: materials that may be incompatible with the released emission-comparable fuel is treated, stored, or disposed of until cleanup procedures are completed; and all emergency equipment listed in the SPCC Plan is cleaned and fit for its intended use before operations are resumed.

(*x*) You must note in the record the time, date, and details of any incident that requires implementing the SPCC Plan for the emission-comparable fuel tank system or container storage unit. Within 15 days after the incident, you must submit a written report on the incident to the Regional Administrator. The report must include: the name, address, and telephone number of the owner or operator; the name, address, and telephone number of the facility; the date, time, and type of incident (*e.g.*, fire, explosion); the name and quantity of material(s) involved; the extent of injuries, if any; an assessment of actual or potential hazards to human health or the environment, where this is applicable; and the estimated quantity and disposition of recovered material that resulted from the incident.

(C) *Response to leaks or spills and disposition of leaking or unfit-for-use tank systems.* (*1*) You must comply with the provisions of § 264.196 of this chapter, except for § 264.196(e)(1) and (e)(4) of this chapter.

(*2*) To satisfy the adopted provisions of § 264.196, you must substitute the term "emission-comparable fuel" for the terms "hazardous waste" and "waste."

(*3*) Unless you satisfy the requirements of § 264.196(e)(2) and (3) of this chapter, you must immediately cease using the tank system to store emission-comparable fuel and remove any liquid and solid residues under the conditions of paragraph (b)(13) of this section.

(vi) *Air emissions conditions adopted from part 63, subpart EEEE.*—(A) *Applicability—(1)* If your emission-comparable fuel storage, transfer, and transport equipment is not subject to the controls provided by § 63.2346 of this chapter, you must determine whether you are subject to the provisions of paragraphs (c)(1)(vi)(B) and (C) of this section:

(*2*) If your emission-comparable fuel storage tank is subject to the controls provided by § 63.2346 of this chapter other than those prescribed by item 6 in Table 2 to subpart EEEE, part 63 of this chapter (*i.e.*, requirements for organic liquids with an annual average true vapor pressure of the total listed organic HAP >=76.6 kilopascals (11.1 psia)), you must determine whether the tank would be subject to the controls prescribed by item 6 after considering the vapor pressure of the RCRA oxygenates listed

in paragraph (c)(1)(vi)(B)(*3*) of this section as well as the organic HAP listed in Table 1 to subpart EEEE, part 63 of this chapter. If the annual average true vapor pressure of the total RCRA oxygenates and Table 1 organic HAP in the emission-comparable fuel is >=76.6 kilopascals (11.1 psia), you are subject to the requirements of paragraphs (c)(1)(vi)(B) through (C) of this section.

(B) *Conditions of applicability.* To satisfy the conditions under paragraph (c)(1)(vi)(C) of this section that are adopted from part 63, subpart EEEE of this chapter, you must:

(*1*) Satisfy the conditions irrespective of whether your facility is an area source as defined by § 63.2 of this chapter.

(*2*) Substitute the term "RCRA oxygenates as well as organic HAP" for each occurrence of the term "organic HAP"; the term "RCRA oxygenates as well as organic HAP listed in Table 1" for each occurrence of the term "organic HAP listed in Table 1"; and the term "RCRA oxygenates as well as Table 1 organic HAP" for each occurrence of the term "Table 1 organic HAP".

(*3*) Use the following definition of RCRA oxygenates: The term "RCRA oxygenates" means the following organic compounds:

(*i*) Allyl alcohol (CAS No. 107–18–6);

(*ii*) Bis(2-ethylhexyl)phthalate [Di–2–ethylhexyl phthalate] (CAS No.117–81–7);

(*iii*) 2,4-Dimethylphenol (CAS No. 105–67–9);

(*iv*) Ethyl methacrylate (CAS No. 97–63–2);

(*v*) 2-Ethoxyethanol [Ethylene glycol monoethyl ether] (CAS No. 110–80–5);

(*vi*) Isobutyl alcohol (CAS No. 78–83–1);

(*vii*) Isosafrole (CAS No. 120–58–1);

(*viii*) Methyl ethyl ketone [2-Butanone] (CAS No. 78–93–3);

(*ix*) 1,4-Naphthoquinone (CAS No. 130–15–4);

(*x*) Propargyl alcohol [2-Propyn-1-ol] (CAS No. 107–19–7); and

(*xi*) Safrole (CAS No. 94–59–7).

(*4*) Use the following definition of organic liquid. Organic liquid means emission comparable fuel that:

(*i*) Contains 5 percent by weight or greater of the RCRA oxygenates as well as organic HAP listed in Table 1 to this subpart, as determined using the procedures specified in § 63.2354(c) of this chapter; and

(*ii*) Has an annual average true vapor pressure of 0.7 kilopascals (0.1 psia) or greater.

(*5*) Use the following definition of affected source. Affected source means the collection of activities and equipment used to distribute organic liquids into, out of, or within a facility.

(*6*) Substitute the term "subject to § 261.38(c)(1)(vi)(C)of this chapter" for each occurrence of the term "subject to this subpart".

(*7*) Satisfy the conditions if:

(*i*) Your organic liquids transfer equipment is exempt from subpart EEEE, part 63 of this chapter, under the provisions of § 63.228(c)(1) of this chapter, which exempts organic liquids transfer equipment at facilities subject to a NESHAP other than subpart EEEE, part 63; and

(*ii*) The requirements applicable to the organic liquids transfer equipment under the other NESHAP are not equivalent to, at a minimum, the conditions under paragraphs (c)(1)(vi)(C), (c)(1)(vii), or (e) of this section. You must document and record your determination whether the requirements under the other NESHAP are less stringent than the conditions under paragraph (c)(1)(vi)(C) of this section. You may contact the RCRA regulatory authority to assist with this determination.

(*8*) Submit all notifications, reports, and other communications to the RCRA regulatory authority rather than the CAA regulatory authority.

(C) *Conditions to control air emissions under provisions adopted from part 63, subpart EEEE of this chapter.* (*1*) The affected source is the equipment identified under § 63.2338(b)(1) through (5) of this chapter, except for equipment identified in § 63.2338(c)(2) through (3) of this chapter.

(*2*) Definitions of new, reconstructed, and existing affected sources are provided under § 63.2338(d) through (f) of this chapter.

(*3*) You must comply with the emission limitations, operating limits, and work practice standards under § 63.2346 of this chapter.

(*4*) You must comply with the general requirements under § 63.2350 of this chapter. The startup, shutdown, and malfunction plan required by § 63.2350(c) of this chapter need not address equipment not subject to paragraph (c)(1)(vi)(C) of this section.

(*5*) You must comply with the performance tests, design evaluation, and performance evaluation requirements under § 63.2354 of this chapter. When complying with § 63.2354(c) of this chapter, however, you must determine the content of RCRA oxygenates as well as organic HAP in the emission-comparable fuel.

(*6*) You must conduct performance tests and other initial compliance demonstrations prior to managing emission-comparable fuel in the storage unit.

(*7*) You must conduct subsequent performance tests by the dates specified in § 63.2362 of this chapter.

(*8*) You must comply with the monitoring, installation, operation, and maintenance requirements under § 63.2366 of this chapter.

(*9*) You must demonstrate initial compliance with the emission limitations, operating limits, and work practice standards as required under § 63.2370 of this chapter.

(*10*) You must monitor and collect data to demonstrate continuous compliance and use the collected data as required by § 63.2374 of this chapter.

(*11*) You must demonstrate continuous compliance with the emission limitations, operating limits, and work practice standards as required by § 63.2378 of this chapter.

(*12*) You must submit the notifications and on the schedule required by § 63.2382 of this chapter, except that initial notifications must be submitted prior to managing emission-comparable fuel in the storage unit. Notifications must be submitted to the RCRA regulatory authority.

(*13*) You must submit the reports and on the schedule required by § 63.2386 of this chapter. Reports must be submitted to the RCRA regulatory authority.

(*14*) You must keep the applicable records required by § 63.2390 of this chapter.

(*15*) You must keep records in the form, and for the duration, required by § 63.2394 of this chapter.

(*16*) The parts of the General Provisions that apply to you are provided by § 63.2398 of this chapter.

(*17*) The definitions that apply to the conditions under paragraph (c)(1)(vi)(C) of this section are provided by § 63.2406 of this chapter, and paragraphs (c)(1)(vi)(B)(3) through (5) of this section.

(*18*) You are subject to the requirements in Tables 1–12 to subpart EEEE, part 63 of this chapter.

(vii) *Air emissions conditions for tanks and containers that are not subject to conditions adopted from part 63, subpart EEEE.* Tank and container storage units that are not subject to the conditions adopted from subpart EEEE, part 63 under paragraph (c)(1)(vi) of this section are subject to the conditions of this paragraph.

(A) *Tanks.* (*1*) *Level 1 control.* (*i*) *Applicability criteria.* Tanks that meet the following vapor pressure limitations for emission-comparable fuel for the tank size designations are subject to the air emission controls under paragraph (c)(1)(vii)(A)(*1*)(*ii*) of this section:

(*A*) For a tank design capacity equal to or greater than 151 m^3 (40,000

gallons), the annual average organic vapor pressure limit for the tank is 5.2 kPa (0.75 psia);

(*B*) For a tank design capacity equal to or greater than 75 m^3 (20,000 gallons) but less than 151 m^3 (40,000 gallons), the annual average organic vapor pressure limit for the tank is 27.6 kPa (4.0 psia); and

(*C*) For a tank design capacity less than 75 m^3 (20,000 gallons), the annual average vapor pressure limit for the tank is 76.6 kPa (11.1 psia);

(*ii*) *Conditions to control emissions.* You must comply with the following requirements:

(*A*) *NESHAP provisions for level 1 control under subpart OO, part 63.* Sections 63.901 through 63.907 of this chapter; or

(*B*) *NESHAP provisions for organic liquid distribution under subpart EEEE, part 63.* The provisions under Item 1.a.i or 1.a.ii which require venting to a control device under provisions of subpart SS, part 63 of this chapter, or Level 2 tank emissions control under subpart WW, part 63 of this chapter, or routing emissions to a fuel gas system or back to a process under § 63.984 of subpart SS, part 63 of this chapter, or vapor balancing emissions to the transport vehicle from which the storage tank is filled under § 63.2346(a)(4); or

(*C*) *Hazardous waste tank controls under subpart CC, part 264.* The provisions for additional options provided for hazardous waste tanks under § 264.1084(d)(3), (d)(4), or (d)(5) of this chapter for use of venting to a control device, a pressure tank, or a tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device, and the associated provisions under §§ 63.1081 (definitions), 264.1083(c) (determination of vapor pressure), 264.1084(j) (transfer to a tank), 264.1087 (closed-vent systems and control devices), and 264.89(b) (recordkeeping) of this chapter. To satisfy these adopted provisions, you must substitute the term "emission-comparable fuel" for the terms "hazardous waste" and "waste."

(*2*) *Level 2 control.* (*i*) *Applicability criteria.* Tanks that do not meet the vapor pressure limitations for emission-comparable fuel for the tank size designations under paragraph (c)(1)(vii)(A)(*1*)(*i*) of this section are subject to the air emission controls under paragraph (c)(1)(vii)(A)(*2*)(*ii*) of this section.

(*ii*) *Conditions to control emissions.* To satisfy the conditions to control emissions, you must comply with the requirements under paragraphs (c)(1)(vii)(A)(*1*)(*ii*)(*B*) or (*C*) of this section.

(*3*) *Equipment leaks.* For each valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange or other connector, and any control devices or systems used to manage emission-comparable fuel in a tank system subject to paragraph (c)(1)(vii)(A) of this section, you must comply with the applicable requirements under 40 CFR part 63, subpart TT (control level 1), except for § 63.1000; or subpart UU (control level 2), except for § 63.1019; or subpart H, except for §§ 63.160, 63.162(b) and (e), and 63.183.

(B) *Containers.* (*1*) *Level 1 control.* (*i*) *Applicability criteria.* Containers that meet the following criteria are subject to the air emission controls under paragraph (c)(1)(vii)(B)(*1*)(*ii*) of this section:

(*A*) Containers having a design capacity greater than 0.1 m^3 and less than or equal to 0.46 m^3;

(*B*) Containers having a design capacity greater than 0.46 m^3 that are not in light liquid service, as defined in § 264.1031 of this chapter.

(*C*) Containers having a design capacity greater than 0.46 m^3 that are in light liquid service, as defined in § 264.1031 of this chapter.

(*ii*) *Conditions to control emissions.* To satisfy the conditions on Level I control of emissions, you must comply with the following requirements:

(*A*) The NESHAP provisions for containers under subpart PP, part 63 at §§ 63.922 (level 1 control) or 63.923 (level 2 control) of this chapter; and

(*B*) The ancillary provisions under subpart PP, part 63 at §§ 63.921 (definitions), 63.925 (test methods and procedures), 63.926 (inspection and monitoring requirements), 63.927 (recordkeeping requirements), and 63.928 (reporting requirements) of this chapter.

(*2*) *Level 2 control.* (i) *Applicability criteria.* Containers that do not meet the criteria under paragraph (c)(1)(vii)(B)(*1*)(*i*) of this section are subject to the air emission controls under paragraph (c)(1)(vii)(B)(*2*)(*ii*) of this section.

(*ii*) *Conditions to control emissions.* To satisfy the conditions on Level II control of emissions, you must comply with the following requirements:

(*A*) The NESHAP provisions for containers under subpart PP, part 63 at § 63.923 (level 2 control) of this chapter; and

(*B*) The ancillary provisions under subpart PP, part 63 at §§ 63.921 (definitions), 63.925 (test methods and procedures), 63.926 (inspection and monitoring requirements, 63.927 (recordkeeping requirements), and 63.928 (reporting requirements) of this chapter.

(*3*) *Equipment leaks.* For each valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange or other connector, and any control devices or systems used to manage emission-comparable fuel in a container subject to paragraph (c)(1)(vii)(B) of this section, you must comply with the applicable requirements under 40 CFR part 63, subpart TT (control level 1), except for § 63.1000; or subpart UU (control level 2), except for § 63.1019; or subpart H, except for §§ 63.160, 63.162(b) and (e), and 63.183.

(viii) *Management of incompatible fuels and other materials*—(A) Generators and burners of emission-comparable fuel must document in the fuel analysis plan under paragraph (b)(4) of this section how (*e.g.*, using trial tests, analytical results, scientific literature, or process knowledge) precautions will be taken to prevent mixing of excluded fuels and other materials which could result in reactions which:

(*1*) Generate extreme heat or pressure, fire or explosions, or violent reactions;

(*2*) Produce uncontrolled toxic mists, fumes, dusts, or gases;

(*3*) Produce uncontrolled flammable fumes or gases; or

(*4*) Damage the structural integrity of the storage unit or facility.

(B) Burners that blend emission-comparable fuel with other fuels but that are exempt from fuel analysis requirements under paragraphs (b)(4) and (b)(5)(iii) of this section must document in the operating record how precautions will be taken to prevent mixing of emission-comparable fuel with other fuels which could result in the reactions listed in paragraph (c)(viii)(A) of this section.

(C) Incompatible fuels must not be placed in the same tank or container.

(2) *Burning.* (i) *Types of combustors that may burn emission-comparable fuel.* Emission-comparable fuel must be burned in a boiler meeting the conditions of paragraph (c)(2)(i)(A) of this section or a hazardous waste combustor under the conditions of paragraph (c)(2)(i)(B) of this section.

(A) *Boilers.* Emission-comparable fuel may be burned in an industrial or utility boiler as defined in paragraph (b)(3) of this section but that is further restricted by being a watertube type of steam boiler that does not feed fuel using a stoker or stoker-type mechanism.

(B) *Hazardous waste combustors.* (*1*) Emission-comparable fuel may be burned in an incinerator, cement kiln,

lightweight aggregate kiln, boiler, or halogen acid production furnace operating under a RCRA permit issued under part 270 of this chapter and in compliance with the applicable provisions of subpart O of part 264, subpart H of part 266, or subpart EEE of part 63 of this chapter, provided that the emission-comparable fuel is burned under the same operating requirements that apply to hazardous waste burned by the combustor.

(*2*) When emission-comparable fuel is burned in a hazardous waste combustor under the provisions of paragraph (c)(2)(i)(B) of this section, the operating conditions under paragraph (c)(2)(ii) of this section do not apply, except for:

(*i*) The emission-comparable fuel constituent feedrate conditions under paragraph (c)(2)(ii)(C) of this section continue to apply; and

(*ii*) The emission-comparable fuel automatic feed cutoff system requirements under paragraph (c)(2)(ii)(G) of this section that apply to monitoring the constituent feedrate limits as specified under paragraph (c)(2)(ii)(G)(*1*)(*ii*) of this section continue to apply.

(ii) *Operating conditions*—(A) *Primary fuels.* (*1*) A minimum of 50 percent of fuel fired to the boiler shall be fossil fuel, fuels derived from fossil fuel, tall oil, or comparable fuel meeting the specifications provided by paragraph (a)(1) of this section. Such fuels are termed "primary fuel" for purposes of this section. (Tall oil is a fuel derived from vegetable and rosin fatty acids.) The primary fuel shall comprise at least 50% of the total fuel heat input to the boiler and at least 50% of the total fuel mass input to the boiler.

(*2*) The primary fuel firing rate shall be continuously monitored and the minimum primary fuel firing rate limit shall be achieved on an hourly rolling average basis;

(B) *Fuel heating value.* Primary fuels shall have a minimum as-fired heating value of 8,000 Btu/lb, and each material fired in a firing nozzle where emission-comparable fuel is fired must have a heating value of at least 8,000 Btu/lb, as-fired;

(C) *Feedrate limits for emission-comparable fuel constituents.* The total feedrate, considering all combustor feedstreams, of each emission-comparable fuel constituent listed under paragraph (a)(2)(ii)(B) of this section shall not exceed the limit provided by Table 2 to this section.

(*1*) The feedrate limits are expressed as gas flowrate-normalized feedrates in the units "ug/dscm".

(*2*) The feedrate limit for total combustor feedstreams expressed as mass/unit time (kg/hr) for each emission-comparable fuel constituent is determined by multiplying the gas flowrate-normalized feedrate limit provided by Table 2 to this section times the combustor gas flowrate.

(*3*) The maximum constituent feedrate (kg/hr) attributable to emission-comparable fuel is the total combustor constituent feedrate (kg/hr) minus the constituent feedrate (kg/hr) for all other combustor feedstreams.

(*4*) To account for emission-comparable fuel constituents in primary fuels, burners may use measured concentrations of the constituents, or:

(*i*) If natural gas is used as a primary fuel, burners may assume that natural gas does not contain emission-comparable fuel constituents and that natural gas has a heating value of 22,000 Btu/lb;

(*ii*) If fuel oil is used as a primary fuel, burners may use the default concentrations for emission-comparable fuel constituents provided in Table 3 to this section, and assume that fuel oil has a heating value of 19,200 Btu/lb; and

(*iii*) If coal is used as a primary fuel, burners may use the default concentrations for emission-comparable fuel constituents provided in Table 4 to this section, and assume that coal has a heating value of 11,100 Btu/lb.

(*5*) The feedrate of each emission-comparable fuel constituent shall be continuously monitored (by knowing the concentration of the constituent in each feedstream and by monitoring the feedrate of each feedstream), and the maximum feedrate limit for each constituent shall not be exceeded on an hourly rolling average basis.

(D) *CO CEMS.* When burning emission-comparable fuel, carbon monoxide emissions must not exceed 100 parts per million by volume, over an hourly rolling average (monitored with a continuous emissions monitoring system (CEMS)), dry basis and corrected to 7 percent oxygen. You must use an oxygen CEMS to continuously correct the carbon monoxide level to 7 percent oxygen. You must install, calibrate, maintain, and continuously operate the CEMS in compliance with the quality assurance procedures provided in the appendix to subpart EEE of part 63 of this chapter (Quality Assurance Procedures for Continuous Emissions Monitors Used for Hazardous Waste Combustors) and Performance Specification 4B (carbon monoxide and oxygen) in appendix B, part 60 of this chapter.

(E) *Dioxin/furan control*—(*1*) If the boiler is equipped with a dry particulate matter control device and the primary fuel is not coal, you must continuously monitor the combustion gas temperature at the inlet to the dry particulate matter control device, and the gas temperature must not exceed 400 °F on an hourly rolling average basis.

(*2*) *Calibration of thermocouples.* The calibration of thermocouples must be verified at a frequency and in a manner consistent with manufacturer specifications, but no less frequently than once per year.

(F) *Calculation of rolling averages*—(*1*) *Calculation of rolling averages upon intermittent operations.* You must ignore periods of time when one-minute values are not available for calculating the hourly rolling average. When one-minute values become available again, the first one-minute value is added to the previous 59 values to calculate the hourly rolling average.

(*2*) *Calculation of rolling averages when the emission-comparable fuel feed is cutoff.* You must continue monitoring carbon monoxide and combustion gas temperature at the inlet to the dry particulate matter emission control device when the emission-comparable fuel feed is cutoff, but the source continues operating on other fuels. You must not resume feeding emission-comparable fuel if the emission levels exceed the limits provided in paragraphs (c)(2)(ii)(D) and (E) of this section.

(G) *Automatic fuel feed cutoff system*—(*1*) *General.* You must operate the boiler with a functioning system that immediately and automatically cuts off the emission-comparable fuel feed, except as provided by paragraph (c)(2)(ii)(G)(*6*) of this section:

(*i*) When the hourly rolling average carbon monoxide level exceeds 100 ppmv or the combustion gas temperature at the inlet to the initial dry particulate matter control device (and the primary fuel is not coal) exceeds 400 °F on an hourly rolling average.

(*ii*) When the emission-comparable fuel feedrate limit for a constituent exceeds the limit provided by Table 2 to this section.

(*iii*) When the primary fuel firing rate is below 50 percent on a heat input and mass input basis;

(*iv*) When the steam production rate (or other indicator of boiler load) indicates that the boiler load is below 40 percent;

(*v*) When the span value of the combustion gas temperature detector is exceeded;

(*vi*) Upon malfunction of the carbon monoxide CEMS, the gas temperature detector, the feedrate monitor(s) for the primary fuel, the feedrate monitor(s) used to comply with the maximum feedrate limits for emission-comparable

fuel constituents, or the monitor for boiler load; or

(*iv*) When any component of the automatic fuel feed cutoff system fails.

(*2*) *Failure of the automatic fuel feed cutoff system.* If the automatic emission-comparable fuel feed cutoff system fails to automatically and immediately cut off the flow of emission-comparable fuel (except as provided by paragraph (c)(2)(ii)(G)(*6*) of this section) upon an occurrence of an event linked to the cutoff system as required under paragraph (c)(2)(ii)(G)(*1*) of this section, you have failed to comply with the emission-comparable fuel cutoff conditions of this section. If an equipment failure prevents immediate and automatic cutoff of the emission-comparable fuel feed, however, you must cease feeding emission-comparable fuel as quickly as possible.

(*3*) *Exceedance of a limit.* If, notwithstanding an automatic emission-comparable fuel feed cutoff, a limit linked to the cutoff system under paragraphs (c)(2)(ii)(G)(*1*)(*i*) through (*iv*) of this section is exceeded while emission-comparable fuel remains in the combustion chamber, you have failed to comply with a condition of the exclusion.

(*4*) *Exceedance reporting.* For each exceedance of a limit linked to the cutoff system under paragraphs (c)(2)(ii)(G)(*1*)(*i*) through (*iv*) of this section while emission-comparable fuel remains in the combustion chamber (*i.e.*, when the emission-comparable fuel residence time has not transpired since the emission-comparable fuel feed was cutoff), you must submit to the RCRA regulatory authority a written report within 5 calendar days of the exceedance documenting:

(i) The exceedance;

(ii) The measures you have taken to manage the material as a hazardous waste; and

(iii) The measures you have taken to notify the generator that you have failed to comply with a condition of the exclusion.

(*5*) *Testing.* The automatic emission-comparable fuel feed cutoff system and associated alarms must be tested at least weekly to verify operability, unless you document in the operating record that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, you must conduct operability testing at least monthly. You must document and record in the operating record automatic emission-comparable fuel feed cutoff system operability test procedures and results.

(*6*) *Ramping down emission-comparable fuel feed.* You may ramp down the emission-comparable fuel feedrate over a period not to exceed one minute. If you elect to ramp down the emission-comparable fuel feed, you must document ramp down procedures in the operating record. The procedures must specify that the ramp down begins immediately upon initiation of automatic emission-comparable fuel feed cutoff and the procedures must prescribe a bona fide ramping down. If a limit linked to the cutoff system under paragraphs (c)(2)(ii)(G)(*1*)(*i*) through (*iv*) of this section is exceeded during the ramp down, you have failed to comply with that limit.

(H) *Boiler load.* (*1*) Boiler load shall not be less than 40 percent. Boiler load is the ratio at any time of the total heat input to the maximum design heat input.

(*2*) Steam production rate or other measure of boiler load shall be monitored continuously and the minimum 40 percent load shall be maintained on an hourly rolling average basis.

(I) *Fuel atomization.* The emission-comparable fuel shall be fired directly into the primary fuel flame zone of the combustion chamber with an air or steam atomization firing system, mechanical atomization system, or a rotary cup atomization system under the following conditions:

(*1*) *Particle size.* The emission-comparable fuel must pass through a 200 mesh (74 micron) screen, or equivalent;

(*2*) *Mechanical atomization systems.* Fuel pressure within a mechanical atomization system and fuel flow rate shall be maintained within the design range taking into account the viscosity and volatility of the fuel;

(*3*) *Rotary cup atomization systems.* Fuel flow rate through a rotary cup atomization system must be maintained within the design range taking into account the viscosity and volatility of the fuel.

(J) *Definition of continuous monitoring systems.* (*1*) Continuous monitoring systems (CMS) must sample the controlled parameter without interruption, and evaluate the detector response at least once each 15 seconds, and compute and record the average values at least every 60 seconds.

(2) For CMS other than the CO CEMS, you must install, operate, and calibrate the other CMS according to the manufacturer's written specifications or recommendations, at a minimum.

(iii) *Boiler operator training.* (A) Boiler operators are personnel that operate or maintain the boiler when emission-comparable fuel is burned, including continuous monitoring systems and the emission-comparable fuel automatic feed cutoff system.

(B) Boiler operators must successfully complete a program that teaches them to perform their duties in a way that ensures the boiler's compliance with the operating conditions under paragraph (c)(2)(ii) of this section. The boiler owner or operator must ensure that this program includes all the elements described in the document required under paragraph (c)(2)(iii)(F) of this section.

(C) This program must be directed by a person trained in boiler operation procedures, and must include instruction which teaches boiler operators procedures relevant to the positions in which they are employed.

(D) At a minimum, the training program must be designed to ensure that boiler operators understand the operating conditions under paragraph (c)(2)(ii) of this section and are able to respond effectively when the emission-comparable fuel automatic feed cutoff system engages an automatic cutoff of the feed of emission-comparable fuel.

(E) Boiler operators must take part in an annual review of the initial training required in paragraph (c)(2)(iii)(B) of this section.

(F) The boiler owner or operator must maintain the following documents and records at the facility:

(*1*) The job title for each boiler operator position, and the name of the employee filling each job;

(*2*) A written job description for each position listed under paragraph (c)(2)(iii)(F)(*1*) of this section. This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but must include the requisite skill, education, or other qualifications, and duties of employees assigned to each position;

(*3*) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under paragraph (c)(2)(iii)(F)(*1*) of this section; and

(*4*) Records that document that the training or job experience required under paragraphs (c)(2)(iii)(B), (C), (D), and (E) of this section has been given to, and completed by, boiler operators.

(*5*) Training records on current personnel must be kept until emission-comparable fuel is no longer burned in the boiler. Training records on former boiler operators must be kept for at least three years from the date the employee last worked as a boiler operator at the facility. Personnel training records may

accompany personnel transferred within the same company.

(3) *Off-site shipments.* (i) Emission-comparable fuel may not be managed by any entity other than its generator, transporter, and designated burner.

(ii) Emission-comparable fuel may not be exported to a foreign country.

(4) *EPA Identification Number.* A burner that receives emission-comparable fuel from an offsite generator must have or obtain an EPA identification number from the Administrator. A burner who has not received an EPA identification number may obtain one by applying to the Administrator using EPA form 8700–12. Upon receiving the request, the Administrator will assign an EPA identification number to the burner.

(5) *Notification, reporting, and recordkeeping.* Except as provided by paragraph (c)(5)(iv) of this section, burners of emission-comparable fuel are subject to the following conditions:

(i) *Initial Notification.* (A) *Off-site burners.* A burner that receives emission-comparable fuel from an offsite generator must submit an initial notification to the Regional or State RCRA and CAA Directors prior to receiving the first shipment:

(*1*) Providing the name, address, and EPA identification number of the burner;

(*2*) Certifying that the excluded fuel will be stored under the conditions of paragraphs (c)(1) or (e) of this section and burned in a boiler or hazardous waste combustor under the conditions of paragraph (c)(2) of this section, and that the burner will comply with the notification, reporting, and recordkeeping conditions of paragraph (c)(5) of this section;

(*3*) Identifying the specific units that will burn the excluded fuel;

(*4*) Providing an estimate of the maximum annual quantity of emission-comparable fuel that will be burned, and an estimate of the maximum as-fired concentrations of each constituent in Table 2 to this section for which the emission-comparable fuel exceeds the specifications for comparable fuel in Table 1 to this section;

(*5*) Providing documentation that ECF will be fired into the flame zone of the primary fuel; and

(*6*) Certifying that the state in which the burner is located is authorized to exclude wastes as excluded fuel under the provisions of this section.

(B) *On-site burners.* An on-site burner must include in the one-time generator notification required under paragraphs (b)(2)(i)(A) and (B) of this section the information identified under paragraphs (c)(5)(i)(A)(*3*) through (*5*) of this section.

(C) If there is a substantive change in the information provided in the initial notification, the burner must submit a revised notification.

(ii) *Reporting.* The burner must submit to the RCRA regulatory authority reports of exceedances of operating parameter limits that are linked to the emission-comparable fuel automatic feed cutoff system, as required under paragraph (c)(2)(ii)(G)(*4*) of this section.

(iii) *Recordkeeping.* (A) *Records of shipments.* If the burner receives a shipment of emission-comparable fuel from an offsite generator, the burner must retain for each shipment the following information on-site in the operating record:

(*1*) The name, address, and RCRA ID number of the generator shipping the excluded fuel;

(*2*) The quantity of excluded fuel delivered;

(*3*) For ECF that would have otherwise been a hazardous waste listed in §§ 261.31 through 261.33, the hazardous waste code for the listed waste; and

(*4*) The date of delivery;

(B) *Boiler operating data.* The burner must retain records of information required to comply with the operating conditions of paragraph (c)(2) of this section in an operating record.

(C) *Records retention.* The burner must retain records at the facility for three years.

(iv) *Burners that are hazardous waste combustors.* Hazardous waste combustors that burn emission-comparable fuel under the provisions of paragraph (c)(2)(i)(B) of this section are not subject to the provisions of paragraphs (c)(5)(i) through (iii) of this section, except:

(A) The provisions of paragraphs (c)(5)(i)(A)(*1*) and (*3*), and paragraphs (c)(5)(iii)(A) and (C) apply; and

(B) The initial notification required under paragraphs (c)(5)(i)(A)(*1*) and (*3*) must include a certification that the excluded fuel will be stored under the conditions of paragraphs (c)(1) or (e) of this section.

(d) *Failure to comply with the conditions of the exclusion.* (1) *General.* An excluded fuel loses its exclusion if any person managing the fuel fails to comply with the conditions of the exclusion under this section, and the material must be managed as hazardous waste from the point of generation. In such situations, EPA or an authorized state agency may take enforcement action under RCRA section 3008(a), except as provided in paragraph (d)(2) of this section.

(2) *Emission-comparable fuel burned in an off-site, unaffiliated burner.* If the generator that claims the exclusion for emission-comparable fuel that is burned in an off-site, unaffiliated burner documents in the operating record that reasonable efforts have been made under this paragraph to ensure that such burner complies with the conditions of exclusion, the burner rather than the generator will be liable for discarding a hazardous waste upon a finding that such burner has not complied with a condition of exclusion.

(i) In making these reasonable efforts, the generator must, at a minimum, affirmatively answer the following questions prior to shipping emission-comparable fuel to the burner:

(A) Has the burner submitted the notification to the RCRA and CAA Directors required under paragraph (c)(5)(i) of this section, and has the burner published the public notice of burning activities required under paragraph (b)(2)(ii) of this section?

(B) Does publicly available information indicate that the burner facility has not had any formal enforcement actions taken against the facility in the previous three years for violations of the RCRA hazardous waste regulations and has not been classified as a significant non-complier with RCRA Subtitle C? In answering this question, the emission-comparable fuel generator can rely on the publicly available information from EPA or the state. If the burner facility has had a formal enforcement action taken against it in the previous three years for violations of the RCRA hazardous waste regulations and has been classified as a significant non-complier with RCRA Subtitle C, does the emission-comparable fuel generator have credible evidence that the burner will manage the emission-comparable fuel properly? In answering this question, the emission-comparable fuel generator can obtain additional information from EPA, the state, or the facility itself that the facility has addressed the violations, taken remedial steps to address the violations and prevent future violations, or that the violations are not relevant to the management of emission-comparable fuel under the conditions of this section.

(C) Does the burner have the equipment and trained personnel to manage the emission-comparable fuel under the conditions of this section?

(ii) In making these reasonable efforts, the generator may use any credible evidence available, including information obtained from the burner and information obtained from a third party;

(iii) The generator must maintain for a minimum of three years

documentation and certification that reasonable efforts were made for each burner facility to which emission-comparable fuel is shipped.

(A) Documentation and certification must be made available upon request by a regulatory authority within 72 hours, or within a longer period of time as specified by the regulatory authority.

(B) The certification statement must:

(*1*) Be signed and dated by an authorized representative of the generator company; and

(*2*) Incorporate the following language: "I hereby certify in good faith and to the best of my knowledge that, prior to arranging for transport of emission-comparable fuel to [insert name(s) of burner facility], reasonable efforts were made to ensure that the emission-comparable fuel would be stored and burned under the conditions prescribed by § 261.38, and that such efforts were based on current and accurate information."

(iv) Reasonable efforts must be repeated at a minimum of every three years.

(v) An unaffiliated burner is a boiler or hazardous waste combustor located at a facility that is not owned by the same parent company that generated the emission-comparable fuel.

(e) *Alternative storage conditions for emissions-comparable fuel.* Emission-comparable fuel may be stored in a tank or container under the following conditions adopted from 40 CFR Part 264 in lieu of the conditions specified under paragraphs (c)(1)(iii) through (c)(1)(viii) of this section. When satisfying these conditions, you must substitute the term "emission-comparable fuel" for each occurrence of the term "hazardous waste" or "waste." You must document in the operating record whether you are complying with the alternative storage conditions of this paragraph, or the storage conditions under paragraphs (c)(1)(iii) through (c)(1)(viii) of this section.

(1) *Security.* You must comply with the requirements under § 264.14 of this chapter to provide security for your emission-comparable fuel storage facility.

(2) *General inspection requirements.* You must comply with the general inspection requirements under § 264.15 of this chapter for your emission-comparable fuel storage facility.

(3) *Personnel training.* You must comply with the personnel training requirements under § 264.16 of this chapter for emission-comparable fuel storage facility personnel.

(4) *General requirements for ignitable, reactive, or incompatible materials.* You must comply with the requirements for ignitable, reactive, or incompatible materials managed by the emission-comparable fuel storage facility.

(5) *Preparedness and prevention.* You must comply with the preparedness and prevention requirements under §§ 264.31 through 264.37 of this chapter with respect to your emission-comparable fuel storage facility.

(6) *Contingency plan and emergency procedures.* You must comply with the contingency plan and emergency procedure requirements under §§ 264.51 through 264.56 of this chapter with respect to your emission-comparable fuel storage facility.

(7) *Air emission requirements for equipment leaks.* You must comply with the requirements under §§ 264.1051 through 264.1065 of this chapter to control leaks from equipment used to manage emission-comparable fuel;

(8) *Use and management of containers.* If you store emission-comparable fuel in a container, you must comply with the following requirements for use and management of those containers:

(i) *Condition of containers.* You must comply with the requirements to ensure containers are in good condition under § 264.171 of this chapter;

(ii) *Compatibility of emission-comparable fuel with containers.* You must comply with the requirements to ensure compatibility of emission-comparable fuel with containers under § 264.172 of this chapter;

(iii) *Management of containers.* You must manage containers as prescribed by § 264.173 of this chapter;

(iv) *Inspections.* You must inspect containers and the containment system as prescribed by § 264.174 of this chapter;

(v) *Containment.* You must comply with the containment provisions under § 264.175 of this chapter;

(vi) *Special requirements for ignitable or reactive emission-comparable fuel.* You must comply with the provisions for ignitable or reactive emission-comparable fuel under § 264.176 of this chapter; and

(vii) *Air emission standards.* You must comply with the air emission requirements under §§ 264.1081, 264.1086(b)(1), (c), (d), and (f) through (h), 264.1088, and 264.1089 of this chapter.

(viii) *Closed vent systems and control devices.* If you use a closed vent system or control device to comply with paragraph (e)(8)(vii) of this section, you must comply with the requirements under §§ 264.1033(b) through (o), and 264.1034 through 264.1036 of this chapter.

(9) *Tank systems.* If you store emission-comparable fuel in a tank, you must comply with the following requirements:

(i) *Containment and detection of releases.* You must comply with the requirements for containment and detection of releases under § 264.193(b), (c), (d), (e), and (f) of this chapter;

(ii) *General operating requirements.* You must comply with the general operating requirements under § 264.194 of this chapter;

(iii) *Inspections.* You must comply with the inspection requirements under § 264.195 of this chapter;

(iv) *Response to leaks or spills and disposition of leaking or unfit-for-use tank systems.* You must comply with the requirements regarding response to leaks or spills and disposition of leaking or unfit-for-use tank systems under § 264.196 of this chapter, except that § 264.196(e)(1) reads for emission-comparable fuel tank systems: "Unless the owner/operator satisfies the requirements of paragraphs (e)(2) through (4) of this section, the tank system must be closed".

(v) *Special requirements for ignitable or reactive materials.* You must comply with the requirements for ignitable and reactive materials under § 264.198 of this chapter;

(vi) *Special requirements for incompatible materials.* You must comply with the requirements for incompatible materials under § 264.199 of this chapter; and

(vii) *Air emissions.* (A) You must comply with the requirements to control air emissions under §§ 264.1081, 264.1083(c), 264.1084(b) through (l), 264.1087 through 264.1089, and 264.1090(b) through (d) of this chapter.

(B) *Closed vent systems and control devices.* If you use a closed vent system or control device to comply with paragraph (e)(9)(vii) of this section, you must comply with the requirements under §§ 264.1033(b) through (o), and 264.1034 through 264.1036 of this chapter.

(f) *Notification of closure of an emission-comparable fuel tank or a container storage unit.* If you store emission-comparable fuel in a tank or container, you must submit a notification to the RCRA regulatory authority when a container storage area or a tank system goes out of emission-comparable fuel service which states the date when the tank or container storage area goes out of service.

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Table 1 to § 261.38—Detection and Detection Limit Values for Comparable Fuel Specification

Chemical name	CAS No.	Concentration Limit (mg/kg at 10,000 Btu/lb)	Minimum Required Detection Limit (mg/kg)
Total Nitrogen as N	NA	4900	.....
Total Halogens as Cl	NA	540	.....
Total Organic Halogens as Cl	NA	([a])	.....
Polychlorinated biphenyls, total [Aroclors, total]	1336-36-3	ND	1.4
Cyanide, total	57-12-5	ND	1
Metals:			
Antimony, total	7440-36-0	12	.....
Arsenic, total	7440-38-2	0.23	.....
Barium, total	7440-39-3	23	.....
Beryllium, total	7440-41-7	1.2	.....
Cadmium, total	7440-43-9	1.2	.....
Chromium, total	7440-47-3	2.3	.....
Cobalt	7440-48-4	4.6	.....
Lead, total	7439-92-1	31	.....
Manganese	7439-96-5	1.2	.....
Mercury, total	7439-97-6	0.25	.....
Nickel, total	7440-02-0	58	.....
Selenium, total	7782-49-2	0.23	.....
Silver, total	7440-22-4	2.3	.....
Thallium, total	7440-28-0	23	.....
Hydrocarbons:			
Benzo[a]anthracene	56-55-3	2400	.....
Benzene	71-43-2	4100	.....
Benzo[b]fluoranthene	205-99-2	2400	.....
Benzo[k]fluoranthene	207-08-9	2400	.....
Benzo[a]pyrene	50-32-8	2400	.....
Chrysene	218-01-9	2400	.....
Dibenzo[a,h]anthracene	52-70-3	2400	.....
7,12-Dimethylbenz[a]anthracene	57-97-6	2400	.....
Fluoranthene	206-44-0	2400	.....
Indeno(1,2,3-cd)pyrene	193-39-5	2400	.....
3-Methylcholanthrene	56-49-5	2400	.....
Naphthalene	91-20-3	3200	.....
Toluene	108-88-3	36000	.....
Oxygenates:			
Acetophenone	98-86-1	2400	.....
Acrolein	107-02-8	39	.....
Allyl alcohol	107-18-6	30	.....
Bis(2-ethylhexyl)phthalate [Di-2-ethylhexyl phthalate]	117-81-7	2400	.....
Butyl benzyl phthalate	85-68-7	2400	.....
o-Cresol [2-Methyl phenol]	95-48-7	2400	.....
m-Cresol [3-Methyl phenol]	108-39-4	2400	.....
p-Cresol [4-Methyl phenol]	106-44-5	2400	.....
Di-n-butyl phthalate	84-74-2	2400	.....

Diethyl phthalate	84-66-2	2400	.....
2,4-Dimethylphenol	105-67-9	2400	.....
Dimethyl phthalate	131-11-3	2400	.....
Di-n-octyl phthalate	117-84-0	2400	.....
Endothall	145-73-3	100	.....
Ethyl methacrylate	97-63-2	39	.....
2-Ethoxyethanol [Ethylene glycol monoethyl ether]	110-80-5	100	.....
Isobutyl alcohol	78-83-1	39	.....
Isosafrole	120-58-1	2400	.....
Methyl ethyl ketone [2-Butanone]	78-93-3	39	.....
Methyl methacrylate	80-62-6	39	.....
1,4-Naphthoquinone	130-15-4	2400	.....
Phenol	108-95-2	2400	.....
Propargyl alcohol [2-Propyn-1-ol]	107-19-7	30	.....
Safrole	94-59-7	2400	.....
Sulfonated Organics:			
Carbon disulfide	75-15-0	ND	39
Disulfoton	298-04-4	ND	2400
Ethyl methanesulfonate	62-50-0	ND	2400
Methyl methanesulfonate	66-27-3	ND	2400
Phorate	298-02-2	ND	2400
1,3-Propane sultone	1120-71-4	ND	100
Tetraethyldithiopyrophosphate [Sulfotepp]	3689-24-5	ND	2400
Thiophenol [Benzenethiol]	108-98-5	ND	30
O,O,O-Triethyl phosphorothioate	126-68-1	ND	2400
Nitrogenated Organics:			
Acetonitrile [Methyl cyanide]	75-05-8	ND	39
2-Acetylaminofluorene [2-AAF]	53-96-3	ND	2400
Acrylonitrile	107-13-1	ND	39
4-Aminobiphenyl	92-67-1	ND	2400
4-Aminopyridine	504-24-5	ND	100
Aniline	62-53-3	ND	2400
Benzidine	92-87-5	ND	2400
Dibenz[a,j]acridine	224-42-0	ND	2400
O,O-Diethyl O-pyrazinyl phosphorothioate [Thionazin]	297-97-2	ND	2400
Dimethoate	60-51-5	ND	2400
p-(Dimethylamino) azobenzene [4-Dime thylaminoazobenzene]	60-11-7	ND	2400
3,3[prime]-Dimethylbenzidine	119-93-7	ND	2400
α,α-Dimethylphenethylamine	122-09-8	ND	2400
3,3[prime]-Dimethoxybenzidine	119-90-4	ND	100
1,3-Dinitrobenzene [m-Dinitrobenzene]	99-65-0	ND	2400
4,6-Dinitro-o-cresol	534-52-1	ND	2400
2,4-Dinitrophenol	51-28-5	ND	2400
2,4-Dinitrotoluene	121-14-2	ND	2400
2,6-Dinitrotoluene	606-20-2	ND	2400
Dinoseb [2-sec-Butyl-4,6-dinitrophenol]	88-85-7	ND	2400
Diphenylamine	122-39-4	ND	2400
Ethyl carbamate [Urethane]	51-79-6	ND	100
Ethylenethiourea (2-Imidazolidinethione)	96-45-7	ND	110

Famphur	52-85-7	ND	2400
Methacrylonitrile	126-98-7	ND	39
Methapyrilene	91-80-5	ND	2400
Methomyl	16752-77-5	ND	57
2-Methyllactonitrile, [Acetone cyanohydrin]	75-86-5	ND	100
Methyl parathion	298-00-0	ND	2400
MNNG (N-Metyl-N-nitroso-N[prime]-nitroguanidine)	70-25-7	ND	110
1-Naphthylamine, [α-Naphthylamine]	134-32-7	ND	2400
2-Naphthylamine, [β-Naphthylamine]	91-59-8	ND	2400
Nicotine	54-11-5	ND	100
4-Nitroaniline, [p-Nitroaniline]	100-01-6	ND	2400
Nitrobenzene	98-96-3	ND	2400
p-Nitrophenol, [p-Nitrophenol]	100-02-7	ND	2400
5-Nitro-o-toluidine	99-55-8	ND	2400
N-Nitrosodi-n-butylamine	924-16-3	ND	2400
N-Nitrosodiethylamine	55-18-5	ND	2400
N-Nitrosodiphenylamine, [Diphenylnitrosamine]	86-30-6	ND	2400
N-Nitroso-N-methylethylamine	10595-95-6	ND	2400
N-Nitrosomorpholine	59-89-2	ND	2400
N-Nitrosopiperidine	100-75-4	ND	2400
N-Nitrosopyrrolidine	930-55-2	ND	2400
2-Nitropropane	79-46-9	ND	2400
Parathion	56-38-2	ND	2400
Phenacetin	62-44-2	ND	2400
1,4-Phenylene diamine, [p-Phenylenediamine]	106-50-3	ND	2400
N-Phenylthiourea	103-85-5	ND	57
2-Picoline [alpha-Picoline]	109-06-8	ND	2400
Propylthioracil, [6-Propyl-2-thiouracil]	51-52-5	ND	100
Pyridine	110-86-1	ND	2400
Strychnine	57-24-9	ND	100
Thioacetamide	62-55-5	ND	57
Thiofanox	39196-18-4	ND	100
Thiourea	62-56-6	ND	57
Toluene-2,4-diamine [2,4-Diaminotoluene]	95-80-7	ND	57
Toluene-2,6-diamine [2,6-Diaminotoluene]	823-40-5	ND	57
o-Toluidine	95-53-4	ND	2400
p-Toluidine	106-49-0	ND	100
1,3,5-Trinitrobenzene, [sym-Trinitobenzene]	99-35-4	ND	2400
Halogenated Organics:			
Allyl chloride	107-05-1	ND	39
Aramite	140-57-8	ND	2400
Benzal chloride [Dichloromethyl benzene]	98-87-3	ND	100
Benzyl chloride	100-44-77	ND	100
bis(2-Chloroethyl)ether [Dichoroethyl ether]	111-44-4	ND	2400
Bromoform [Tribromomethane]	75-25-2	ND	39
Bromomethane [Methyl bromide]	74-83-9	ND	39
4-Bromophenyl phenyl ether [p-Bromo diphenyl ether]	101-55-3	ND	2400
Carbon tetrachloride	56-23-5	ND	39
Chlordane	57-74-9	ND	14

p-Chloroaniline	106-47-8	ND	2400
Chlorobenzene	108-90-7	ND	39
Chlorobenzilate	510-15-6	ND	2400
p-Chloro-m-cresol	59-50-7	ND	2400
2-Chloroethyl vinyl ether	110-75-8	ND	39
Chloroform	67-66-3	ND	39
Chloromethane [Methyl chloride]	74-87-3	ND	39
2-Chloronaphthalene [beta-Chloronaphthalene]	91-58-7	ND	2400
2-Chlorophenol [o-Chlorophenol]	95-57-8	ND	2400
Chloroprene [2-Chloro-1,3-butadiene]	1126-99-8	ND	39
2,4-D [2,4-Dichlorophenoxyacetic acid]	94-75-7	ND	7
Diallate	2303-16-4	ND	3400
1,2-Dibromo-3-chloropropane	96-12-8	ND	39
1,2-Dichlorobenzene [o-Dichlorobenzene]	95-50-1	ND	2400
1,3-Dichlorobenzene [m-Dichlorobenzene]	541-73-1	ND	2400
1,4-Dichlorobenzene [p-Dichlorobenzene]	106-46-7	ND	2400
3,3[prime]-Dichlorobenzidine	91-94-1	ND	2400
Dichlorodifluoromethane [CFC-12]	75-71-8	ND	39
1,2-Dichloroethane [Ethylene dichloride]	107-06-2	ND	39
1,1-Dichloroethylene [Vinylidene chloride]	75-35-4	ND	39
Dichloromethoxy ethane [Bis(2-chloroethoxy)methane]	111-91-1	ND	2400
2,4-Dichlorophenol	120-83-2	ND	2400
2,6-Dichlorophenol	87-65-0	ND	2400
1,2-Dichloropropane [Propylene dichloride]	78-87-5	ND	39
cis-1,3-Dichloropropylene	10061-01-5	ND	39
trans-1,3-Dichloropropylene	10061-02-6	ND	39
1,3-Dichloro-2-propanol	96-23-1	ND	30
Endosulfan I	959-98-8	ND	1.4
Endosulfan II	33213-65-9	ND	1.4
Endrin	72-20-8	ND	1.4
Endrin aldehyde	7421-93-4	ND	1.4
Endrin Ketone	53494-70-5	ND	1.4
Epichlorohydrin [1-Chloro-2,3-epoxy propane]	106-89-8	ND	30
Ethylidene dichloride [1,1-Dichloroethane]	75-34-3	ND	39
2-Fluoroacetamide	640-19-7	ND	100
Heptachlor	76-44-8	ND	1.4
Heptachlor epoxide	1024-57-3	ND	2.8
Hexachlorobenzene	118-74-1	ND	2400
Hexachloro-1,3-butadiene [Hexachlorobutadiene].	87-68-3	ND	2400
Hexachlorocyclopentadiene	77-47-4	ND	2400
Hexachloroethane	67-72-1	ND	2400
Hexachlorophene	70-30-4	ND	59000
Hexachloropropene [Hexachloropropylene]	1888-71-7	ND	2400
Isodrin	465-73-6	ND	2400
Kepone [Chlordecone]	143-50-0	ND	4700
Lindane [gamma-BHC] [gamma-Hexachlorocyclohexane]	58-89-9	ND	1.4
Methylene chloride [Dichloromethane]	75-09-2	ND	39
4,4[prime]-Methylene-bis(2-chloroaniline)	101-14-4	ND	100
Methyl iodide [Iodomethane]	74-88-4	ND	39

Pentachlorobenzene	608-93-5	ND	2400
Pentachloroethane	76-01-7	ND	39
Pentachloronitrobenzene [PCNB] [Quintobenzene] [Quintozene].	82-68-8	ND	2400
Pentachlorophenol	87-88-5	ND	2400
Pronamide	23950-58-5	ND	2400
Silvex [2,4,5-Trichlorophenoxypropionic acid]..	93-72-1	ND	7
2,3,7,8-Tetrachlorodibenzo-p-dioxin [2,3,7,8-TCDD]	1746-01-6	ND	30
1,2,4,5-Tetrachlorobenzene	95-94-3	ND	2400
1,1,2,2-Tetrachloroethane	79-35-4	ND	39
Tetrachloroethylene [Perchloroethylene]	127-18-4	ND	39
2,3,4,6-Tetrachlorophenol	58-90-2	ND	2400
1,2,4-Trichlorobenzene	120-82-1	ND	2400
1,1,1-Trichloroethane [Methyl chloroform]	71-56-6	ND	39
1,1,2-Trichloroethane [Vinyl trichloride]	79-00-5	ND	39
Trichloroethylene	79-01-6	ND	39
Trichlorofluoromethane [Trichlormonofluoromethane]	75-69-4	ND	39
2,4,5-Trichlorophenol	95-95-4	ND	2400
2,4,6-Trichlorophenol	88-06-2	ND	2400
1,2,3-Trichloropropane	96-18-4	ND	39
Vinyl Chloride	75-01-4	ND	39

Notes:

NA--Not Applicable.

ND--Nondetect.

(*) 25 or individual halogenated organics listed below.

TABLE 2 TO §261.38.—MAXIMUM ALLOWABLE FEEDRATES FOR EMISSION-COMPARABLE FUEL CONSTITUENTS

Chemical Name	CAS Number	Constituent Gas Flowrate-Normalized Feedrate Limit (ug/dscm)[1]
Hydrocarbons		
Benzene	71-43-2	5.33E+04
Naphthalene	91-20-3	3.20E+05
Toluene	108-88-3	1.20E+06
Benzo[a]anthracene	56-55-3	1.60E+03
Benzo[b]fluoranthene	205-99-2	2.00E+02
Benzo[k]fluoranthene	207-08-9	1.00E+03
Benzo[a]pyrene	50-32-8	5.00E+01
Chrysene	218-01-9	1.80E+03
Dibenzo[a,h]anthracene	52-70-30	4.00E+02
7,12-Dimethylbenz[a]anthracene	57-97-6	2.00E+02
Fluoranthene	206-44-0	6.10E+03
Indeno(1,2,3-cd)pyrene	193-39-5	1.00E+03
3-Methylcholanthrene	56-49-5	2.00E+02
Oxygenates		
Acetophenone	98-86-2	3.60E+05
Acrolein	107-02-8	3.60E+05
Allyl alcohol	107-18-6	3.60E+05
Bis(2-ethylhexyl)phthalate [Di-2ethylhexyl phthalate]	117-81-7	3.60E+05
Butyl benzyl phthalate	85-68-7	3.60E+05
o-Cresol [2-Methyl phenol]	95-48-7	3.60E+05
m-Cresol [3-Methyl phenol]	108-39-4	3.60E+05
p-Cresol [4-Methyl phenol]	106-44-5	3.60E+05
Di-n-butyl phthalate	84-74-2	3.60E+05
Diethyl phthalate	84-66-2	3.60E+05
2,4-Dimethylphenol	105-67-9	3.60E+05
Dimethyl phthalate	131-11-3	3.60E+05
Di-n-octyl phthalate	117-84-0	3.60E+05
Endothall	145-73-3	3.60E+05
Ethyl methacrylate	97-63-2	3.60E+05
2-Ethoxyethanol [Ethylene glycol monoethyl ether]	110-80-5	3.60E+05
Isobutyl alcohol	78-83-1	3.60E+05
Isosafrole	120-58-1	3.60E+05
Methyl ethyl ketone [2-Butanone]	78-93-3	3.60E+05
Methyl methacrylate	80-62-6	1.80E+05
1,4-Naphthoquinone	130-15-4	3.60E+05
Phenol	108-95-2	3.60E+04
Propargyl alcohol [2-Propyne-1-ol]	107-19-7	3.60E+05
Safrole	94-59-7	3.60E+05

[1] To determine the maximum allowable mass feedrate per unit time to the combustor, "ug/min," of an emission-comparable fuel constituent, multiply the gas flowrate-normalized feedrate limit, "ug/dscm," times the gas flowrate of the combustor, "dscm/min."

TABLE 3 TO §261.38—DEFAULT VALUES FOR THE CONCENTRATION OF EMISSION-COMPARABLE FUEL CONSTITUENTS IN FUEL OIL

	Chemical Name	CAS Number	Default Concentration (mg/kg)
	Hydrocarbons		
1	Benzene	71-43-2	75
2	Naphthalene	91-20-3	3500
3	Toluene	108-88-3	380
4	Benzo[a]anthracene	56-55-3	2400
5	Benzo[b]fluoranthene	205-99-2	2400
6	Benzo[k]fluoranthene	207-08-9	2400
7	Benzo[a]pyrene	50-32-8	2400
8	Chrysene	218-01-9	2400
9	Dibenzo[a,h]anthracene	52-70-30	2400
10	7,12-Dimethylbenz[a]anthracene	57-97-6	2400
11	Fluoranthene	206-44-0	2400
12	Indeno(1,2,3-cd)pyrene	193-39-5	2400
13	3-Methylcholanthrene	56-49-5	2400
	Oxygenates		
1	Acetophenone	98-86-2	2400
2	Acrolein	107-02-8	39
3	Allyl alcohol	107-18-6	30
4	Bis(2-ethylhexyl)phthalate [Di-2ethylhexyl phthalate]	117-81-7	2400
5	Butyl benzyl phthalate	85-68-7	2400
6	o-Cresol [2-Methyl phenol]	95-48-7	2400
7	m-Cresol [3-Methyl phenol]	108-39-4	2400
8	p-Cresol [4-Methyl phenol]	106-44-5	2400
9	Di-n-butyl phthalate	84-74-2	2400
10	Diethyl phthalate	84-66-2	2400
11	2,4-Dimethylphenol	105-67-9	2400
12	Dimethyl phthalate	131-11-3	2400
13	Di-n-octyl phthalate	117-84-0	2400
14	Endothall	145-73-3	100
15	Ethyl methacrylate	97-63-2	39
16	2-Ethoxyethanol [Ethylene glycol monoethyl ether]	110-80-5	100
17	Isobutyl alcohol	78-83-1	39
18	Isosafrole	120-58-1	2400
19	Methyl ethyl ketone [2-Butanone]	78-93-3	39
20	Methyl methacrylate	80-62-6	39
21	1,4-Naphthoquinone	130-15-4	2400
22	Phenol	108-95-2	2400
23	Propargyl alcohol [2-Propyne-1-ol]	107-19-7	30
24	Safrole	94-59-7	2400

TABLE 4 TO §261.38.—DEFAULT VALUES FOR THE CONCENTRATION OF EMISSION-COMPARABLE FUEL CONSTITUENTS IN COAL

Compound	Concentration in Coal (mg/kg)
Acetophenone	150
Acrolein	2900
Benzene	217
Bis(2-ethylhexyl)phthalate	730
MEK	3900
Methyl methacrylate	200
Phenol	16
Toluene	120

Note: The default value for other emission-comparable fuel constituents in coal is 0 mg/kg.

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