State of Ohio Environmental Protection Agency

Street Address:
Lazarus Gov. Center
50 West Town Street, Suite 700
Columbus, OH 43215

TELE: (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

06/19/07

CERTIFIED MAIL

RE: Draft Title V Chapter 3745-77 permit

03-51-01-0012
Whirlpool Corp. Marion Div.
Alvin L. Sykes
1300 Marion-Agosta Road
Marion, OH 43301-1808

Dear Alvin L. Sykes:

You are hereby notified that the Ohio Environmental Protection Agency has prepared the enclosed draft of the Title V permit for the facility referenced above. The purpose of this draft is to solicit public comments. A public notice concerning the draft will appear in the Ohio EPA Weekly Review and the major newspaper in the county where the facility is located. Comments and/or a request for a public hearing from the public and any affected parties will be accepted by Northwest District Office within 30 days of the date of publication in the newspaper. You will be notified in writing if a public hearing is scheduled. **In order to facilitate our review of all the comments or concerns you may have with the enclosed draft permit, please provide a hand marked-up copy of the draft permit showing the changes you think are necessary, along with any additional summary comments, by the end of the draft public comment period. The hard marked-up copy and any additional summary comments should be submitted to the Ohio EPA District Office or local air agency identified below and to the following address:**

Andrew Hall
Permit Review/Development Section
Ohio EPA, Division of Air Pollution Control
122 South Front Street
Columbus, Ohio 43215

A decision on processing the Title V permit will be made after consideration of written public comments and oral testimony (if a public hearing is conducted). After the comment period, you will be provided with a Preliminary Proposed Title V permit and an opportunity to comment prior to the Proposed Title V permit submittal to USEPA.

If you have any questions concerning this draft Title V permit, please contact Northwest District Office.

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

cc: USEPA (electronically submitted)
File, DAPC PIER
Northwest District Office

State of Ohio Environmental Protection Agency

DRAFT TITLE V PERMIT

Issue Date: 06/19/07	Effective Date: To be entered upon final issuance	Expiration Date: To be entered upon final issuance

This document constitutes issuance of a Title V permit for Facility ID: 03-51-01-0012 to:

Whirlpool Corp. Marion Div.
1300 Marion-Agosta Road
Marion, OH 43301-1808

Emissions Unit ID (Company ID)/Emissions Unit Activity Description

B002 (Boiler #1)
Main facility boiler providing heat for the water wash process.

B003 (Boiler #2)
Main facility boiler providing heat for the water wash process.

B005 (Striphouse Boiler)
Boiler providing building heating.

B009 (Hasting Air Makeup Unit (9.9 MM Btu/hr))
Hasting air makeup unit serves to heat fresh air entering facility buildings.

B010 (Hasting Air Makeup Unit (10 MM Btu/hr))
Hasting air makeup unit serves to heat fresh air entering facility buildings.

B011 (Hasting Air Makeup Unit (9.9 MM Btu/hr))
Hasting air makeup unit serves to heat fresh air entering facility buildings.

K001 (Electrostatic #1 Coating Line)
Following the Electrostatic #1 blowoff booth, the cabinets receive an extra layer of coating as necessary in the reinforcing booth. The extra coating serves to reinforce areas of the cabinets. Following the Electrostatic #1 reinforcing booth, a top coat is automatically applied in the Ransburg booth. Following the Electrostatic #1 Ransburg booth, the cabinets go through the vapor tunnel for initial removal of VOCs, which are being emitted from the drying paint. Following the Electrostatic #1 vapor tunnel, the cabinets are conveyed through the cure oven for final paint drying.

K004 (Ecoat #2: dip one coat, rinse, oven)
Prepped cabinets are conveyed through the electrically charged, cathodic E-coat bath #2. The cabinet is then washed three times to remove any free solids. Cabinets are conveyed through the cure oven for final paint drying.

K006 (Ecoat #1: dip one coat, rinse, oven)
Prepped dryer drums are conveyed through the electrically charged, cathodic E-coat bath #1. The drum is then washed three times to remove any free solids. Dryer drums are conveyed through the cure oven for final paint drying.

K007 (Powder Paint Bake Oven)
Following application of the organic powder coat, drums are conveyed to the bake oven for curing.

K008 (Small Parts E-Coat and rinse stages and Cure Oven)
Prepped small parts are conveyed through the electrically charged, cathodic E-coat bath. The part is then washed three times to remove any free solids. Small parts are conveyed through the cure oven for final paint drying.

N001 (Pyrolysis Furnace #1)
For removal of cured hydrocarbon coatings from metal parts by pyrolysis or heating.

N002 (Pyrolysis Furnace #4)
For removal of cured hydrocarbon coatings from metal parts by pyrolysis or heating.

N003 (Pyrolysis Furnace #5)
For removal of cured hydrocarbon coatings from metal parts by pyrolysis or heating.

N008 (Pyrolysis Furnace #8)
For removal of cured hydrocarbon coatings from metal parts by pyrolysis or heating.

N009 (Pyrolysis Furnace #9)
For removal of cured hydrocarbon coatings from metal parts by pyrolysis or heating.

N010 (Pyrolysis Furnace #10)
For removal of cured hydrocarbon coatings from metal parts by pyrolysis or heating.

N011 (Pyrolysis Furnace #11)
For removal of cured hydrocarbon coatings from metal parts by pyrolysis or heating.

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402
(419) 352-8461

Ohio Environmental Protection Agency

_____

Chris Korleski
Director

PART I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Section

1. Monitoring and Related Record Keeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Section A.III of Part III of this Title V permit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

i. The date, place (as defined in the permit), and time of sampling or measurements.

ii. The date(s) analyses were performed.

iii. The company or entity that performed the analyses.

iv. The analytical techniques or methods used.

v. The results of such analyses.

vi. The operating conditions existing at the time of sampling or measurement.
(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))

c. The permittee shall submit required reports in the following manner:

i. **All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:**

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year in accordance with General Term and Condition A.1.c.ii below; and each report shall cover the previous calendar quarter (An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c)).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) constitutes a violation of an emission limitation (or control requirement) and, therefore, is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided

in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any scheduled maintenance, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

ii. **Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Section A.IV of Part III of this Title V permit or, in some cases, in Part II of this Title V permit, all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:**

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this General Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (for the deviations so reported) the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this General Term and Condition.

See B.6 below if no deviations occurred during the quarter.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

iii. **All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with General Term and Condition A.1.c.ii above shall be submitted in the following manner:**

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; General Terms and Conditions: A.2, A.3, A.4, A.6.e, A.7, A.12, A.14, A.18, A.19, A.20, and A.22 of Part I of this Title V permit, as well as any deviations from the requirements in Section A.V or A.VI of Part III of this Title V permit**,** and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with General Term and Condition A.1.c.ii above shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office

or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in Part II.A of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with General Term and Condition A.1.c.ii above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.
(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

iv. Each written report shall be signed by a responsible official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in the report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."
(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

v. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

2. Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in General Term and Condition A.1.c.i above.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Risk Management Plans

If applicable, the permittee shall develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. ("Act"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

a. a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or

b. as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.
(Authority for term: OAC rule 3745-77-07(A)(5))

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
(Authority for term: OAC rule 3745-77-07(A)(6))

6. General Requirements

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.10 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d. This permit does not convey any property rights of any sort, or any exclusive privilege.

e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

f. Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable upon final issuance of all applicable OAC Chapter 3745-35 operating permits and/or registrations for all subject emissions units located at the facility and:

   i. the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a “major source” as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or

   ii. the permittee no longer meets the definition of a “major source” as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or

   iii. a combination of i. and ii. above.

   The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.
   (Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.
(Authority for term: OAC rule 3745-77-07(A)(8))

8. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.
(Authority for term: OAC rule 3745-77-07(A)(9))

9. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.
(Authority for term: OAC rule 3745-77-07(A)(10))

10. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

11. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.
(Authority for term: OAC rule 3745-77-07(B))

12. Compliance Requirements

a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.

iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:

i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted (i.e., postmarked) on or before April 30th of each year during the permit term.

ii. Compliance certifications shall include the following:

(a) An identification of each term or condition of this permit that is the basis of the certification.

(b) The permittee's current compliance status.

(c) Whether compliance was continuous or intermittent.

(d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.

(e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.

iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

13. Permit Shield

a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

14. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed

under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).
(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

15. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.
(Authority for term: OAC rule 3745-77-07(G))

16. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.

b. The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).

d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.
(Authority for term: OAC rule 3745-77-07(I))

17. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.
(This term is provided for informational purposes only.)

18. Insignificant Activities or Emissions Levels

Each IEU that has one or more applicable requirements shall comply with those applicable requirements.
(Authority for term: OAC rule 3745-77-07(A)(1))

19. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.
(Authority for term: OAC rule 3745-77-07(A)(1))

20. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.
(Authority for term: OAC rule 3745-77-07(A)(1))

21. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the responsible official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

No emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.
(Authority for term: OAC rule 3745-77-01)

22. **Title VI Provisions**

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11))

B. ***State Only Enforceable Section***

1. Reporting Requirements Related to Monitoring and Record Keeping Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

2. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

3. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

4. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

5. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

6. Additional Reporting Requirements When There Are No Deviations of <u>Federally Enforceable</u> Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations

occurred during that quarter. The reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

a. where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in General Term and Condition A.1.c.ii; or

b. where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potentials to emit; or

c. where the company's responsible official has certified that an emissions unit has been permanently shut down.

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforceable Section

1. This facility is subject to 40 CFR Part 63, Subparts DDDDD, National Emission Standards for Hazardous Air Pollutants: Industrial, Commercial, and Institutional Boilers and Process Heaters (see attachments). The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart DDDDD. The permittee shall also comply with all applicable requirements of 40 CFR Part 63, Subpart A (General Provisions) as identified in Table 10 of 40 CFR Part 63, Subpart DDDDD. Compliance with all applicable requirements shall be achieved by the dates set forth in 40 CFR Part 63, Subpart DDDDD, and Subpart A.

(Authority for term: 40 CFR Part 63, Subpart DDDDD)

2. This facility is subject to 40 CFR Part 63, Subparts NNNN, National Emission Standards for Hazardous Air Pollutants: Surface Coating of Large Applicances (see attachments). The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart NNNN. The permittee shall also comply with all applicable requirements of 40 CFR Part 63, Subpart A (General Provisions) as identified in Table 2 of 40 CFR Part 63, Subpart NNNN. Compliance with all applicable requirements shall be achieved by the dates set forth in 40 CFR Part 63, Subpart NNNN, and Subpart A.

(Authority for term: 40 CFR Part 63, Subpart NNNN)

3. The following insignificant emissions units are located at this facility:

B001 - penthouse boiler;
B004 - oilhouse boiler;
B006 - powder boilers 1-2-3 (PTI #03-1823)
P014 - groundwater and soil solvent vacuum extraction with vapor phase carbon;
T002 - 20,000 gallon fuel oil tank #1;
T003 - 20,000 gallon fuel oil tank #2;
T004 - 20,000 gallon fuel oil tank #3
Z001 - backup generator;
Z002 - backup generator plant;
Z003 - diesel fire pump generator;
Z007 - powder paint dry off oven;
Z008 - assembly adhesive;
Z009 - electrostatic #1 prep area;
Z011 - 6 mmBtu/hr Hastings air make-up unit;
Z012 - 4..2 mmBtu/hr Hastings air make-up unit;
Z013 - 8 mmBtu/hr air make-up unit; and
Z014 - center and east e-coat storage tanks.

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, and well as any emission limitations and/or control requirements contained within the identified permit to install for the emissions unit. Insignificant emissions units listed above that are not subject to specific permit to install requirements are subject to one or more applicable requirements contained in the SIP-approved versions of OAC Chapters 3745-17, 3745-18 and 3745-21.

B. State Only Enforceable Section

1. The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirements or because they meet the "de minimis" criteria established in OAC rule 3745-15-05:

Z010 - electrostatic #2 prep area;
Z015 - powder paint rejection sanding booth;
Z016 - powder paint system #2: application booth and oven.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Boiler #1 (B002)

Activity Description: Main facility boiler providing heat for the water wash process.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
21 mmBtu/hr, natural gas, LPG and/or #2 fuel oil Cleaver Brooks boiler (boiler #1)	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-10(B)	0.020 lb particulate emissions (PE/)mmBtu of actual heat input
	OAC rule 3745-18-06(D)	1.6 lbs SO2/mmBtu of actual heat input
	40 CFR, Part 63, Subpart DDDDD	See A.I.2.a.

2. Additional Terms and Conditions

2.a This emissions unit is subject to 40 CFR, Part 63, Subpart DDDDD. However, pursuant to 40 CFR, Part 63.7506(b), this emissions unit is subject to only the initial notification requirements in 40 CFR, Part 63.9(b) (i.e., it is not subject to the emissions limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart or any other requirements in subpart A of this part).

II. Operational Restrictions

1. The quality of oil burned in this emissions unit shall meet, on an "as-received" basis, a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation of 1.6 lbs/mmBtu of actual heat input.

[OAC rule 3745-77-07(A)(1)]

2. The permittee shall burn only natural gas, LPG and/or #2 fuel oil in this emissions unit.

[OAC rule 3745-77-07(A)(1)]

III. Monitoring and/or Record Keeping Requirements

1. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the director.

[OAC rule 3745-77-07(C)(1)]

2. For each day during which the permittee burns a fuel other than natural gas, LPG and/or #2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[OAC rule 3745-77-07(C)(1)]

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas, LPG and/or #2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1)]

2. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any record which shows a deviation of the allowable sulfur dioxide limitation specified in Section A.1 of this permit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1)]

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of the terms and conditions of this permit shall be determined in accordance with the following methods:

1.a Emission Limitation: Visible emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, compliance with the visible emissions limitation above shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation: 0.020 lb PE/mmBtu of actual heat input

Applicable Compliance Method: When firing natural gas, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filterable)/mm cu. ft, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

When firing LPG, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly LPG consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 0.6 lb PE (filterable)/1000 gallons of LPG used, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

When firing #2 fuel oil, and/or a combination of #2 fuel oil, LPG and natural gas, the permittee may determine compliance by multiplying the maximum hourly fuel oil consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.3-1 (revised 9/98) of 2.0 lbs PE (filterable)/1,000 gallons of oil used, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

If required, compliance with the lb/mmBtu PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

1.c Emission Limitation: 1.6 pounds sulfur dioxide/mmBtu of actual heat input

Applicable Compliance Method: When firing fuel oil, except as provided below, compliance with the allowable sulfur dioxide emission limitation shall be demonstrated by documenting that the sulfur content of each shipment of oil received or each daily sample collected during a calendar month meets the limitation.

If the sulfur content of each shipment of oil received during a calendar month does not comply with the allowable emission limitation on an "as-received" basis, compliance with the allowable sulfur dioxide emission limitation shall be based upon an average for the calendar month of the calculated sulfur dioxide emission rates for all of the shipments during the calendar month.

When firing natural gas and/or LPG, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel.

If required, compliance with the limitation above shall be determined in accordance with Methods 1-4 and 6 of 40 CFR, Part 60, Appendix A.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
21 mmBtu/hr, natural gas, LPG and/or #2 fuel oil Cleaver Brooks boiler (boiler #1)	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Boiler #2 (B003)

Activity Description: Main facility boiler providing heat for the water wash process.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
21 mmBtu/hr, natural gas, LPG and/or #2 fuel oil Cleaver Brooks boiler (boiler #2)	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-10(B)	0.020 lb particulate emissions (PE)/mmBtu of actual heat input
	OAC rule 3745-18-06(D)	1.6 lbs SO2/mmBtu of actual heat input
	OAC rule 3745-31-05 (PTI #03-9677, issued 5/8/96)	when firing natural gas: 2.8 lbs of nitrogen oxides (NOx)/hr The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-10(B), 3745-17-07(A) and 3745-18-06(D).
	40 CFR, Part 63, Subpart DDDDD	See A.I.2.a.

2. Additional Terms and Conditions

2.a This emissions unit is subject to 40 CFR, Part 63, Subpart DDDDD. However, pursuant to 40 CFR, Part 63.7506(b), this emissions unit is subject to only the initial notification requirements in 40 CFR, Part 63.9(b) (i.e., it is not subject to the emissions limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart or any other requirements in subpart A of this part).

II. Operational Restrictions

1. The quality of oil burned in this emissions unit shall meet, on an "as-received" basis, a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation of 1.6 lbs/mmBtu of actual heat input.

[OAC rule 3745-77-07(A)(1) and PTI #03-9677]

2. The permittee shall burn only natural gas, LPG and/or #2 fuel oil in this emissions unit.

[OAC rule 3745-77-07(A)(1) and PTI #03-9677]

III. Monitoring and/or Record Keeping Requirements

1. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the director.

[OAC rule 3745-77-07(C)(1) and PTI #03-9677]

2. For each day during which the permittee burns a fuel other than natural gas, LPG and/or #2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI #03-9677]

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas, LPG and/or #2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1) and PTI #03-9677]

2. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any record which shows a deviation of the allowable sulfur dioxide limitation specified in Section A.1 of this permit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1) and PTI #03-9677]

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of the terms and conditions of this permit shall be determined in accordance with the following methods:

1.a Emission Limitation: Visible emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, compliance with the visible emissions limitation above shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation: 0.020 lb PE/mmBtu of actual heat input

Applicable Compliance Method: When firing natural gas, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filterable)/mm cu. ft, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

When firing LPG, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly LPG consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 0.6 lb PE (filterable)/1000 gallons of LPG used, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

When firing #2 fuel oil, and/or a combination of #2 fuel oil, LPG and natural gas, the permittee may determine compliance by multiplying the maximum hourly fuel oil consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.3-1 (revised 9/98) of 2.0 lbs PE (filterable)/1,000 gallons of oil used, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

If required, compliance with the lb/mmBtu PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

1.c Emission Limitation: 1.6 pounds sulfur dioxide/mmBtu of actual heat input

Applicable Compliance Method: When firing fuel oil, except as provided below, compliance with the allowable sulfur dioxide emission limitation shall be demonstrated by documenting that the sulfur content of each shipment of oil received or each daily sample collected during a calendar month meets the limitation.

If the sulfur content of each shipment of oil received during a calendar month does not comply with the allowable emission limitation on an "as-received" basis, compliance with the allowable sulfur dioxide emission limitation shall be based upon an average for the calendar month of the calculated sulfur dioxide emission rates for all of the shipments during the calendar month.

When firing natural gas and/or LPG, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel.

If required, compliance with the limitation above shall be determined in accordance with Methods 1-4 and 6 of 40 CFR, Part 60, Appendix A.

1.d Emission Limitation: 2.8 lbs NOx/hr

Applicable Compliance Method: The permittee may demonstrate compliance with the hourly allowable NOx emission limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-1 (revised 7/98) of 100 lbs NOx/mm cu. ft.

If required, compliance with the hourly allowable NOx emission limitation above shall be determined in accordance with Methods 1 through 4 and 7 of 40 CFR, Part 60, Appendix A.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
21 mmBtu/hr, natural gas, LPG and/or #2 fuel oil Cleaver Brooks boiler (boiler #2)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Striphouse Boiler (B005)

Activity Description: Boiler providing building heating.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
10 mmBtu/hr, natural gas and/or #2 fuel oil Powermaster, Ore and Sambower boiler (striphouse boiler)	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-10(B)	0.020 lb particulate emissions (PE/)mmBtu of actual heat input
	OAC rule 3745-18-06(D)	1.6 lbs SO2/mmBtu of actual heat input
	40 CFR, Part 63, Subpart DDDDD	See A.I.2.a.

2. Additional Terms and Conditions

2.a This emissions unit is subject to 40 CFR, Part 63, Subpart DDDDD. However, pursuant to 40 CFR, Part 63.7506(c), this emissions unit is not subject to the initial notification requirements in 40 CFR, Part 63.9(b) and is not subject to any requirements in this subpart or in Subpart A of this part (i.e., it is not subject to the emissions limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart or any other requirements in subpart A of this part).

II. Operational Restrictions

1. The quality of oil burned in this emissions unit shall meet, on an "as-received" basis, a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation of 1.6 lbs/mmBtu of actual heat input.

[OAC rule 3745-77-07(A)(1)]

2. The permittee shall burn only natural gas and/or #2 fuel oil in this emissions unit.

[OAC rule 3745-77-07(A)(1)]

III. Monitoring and/or Record Keeping Requirements

1. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the director.

[OAC rule 3745-77-07(C)(1)]

2. For each day during which the permittee burns a fuel other than natural gas and/or #2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[OAC rule 3745-77-07(C)(1)]

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or #2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1)]

2. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any record which shows a deviation of the allowable sulfur dioxide limitation specified in Section A.1 of this permit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1)]

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of the terms and conditions of this permit shall be determined in accordance with the following methods:

1.a Emission Limitation: Visible emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, compliance with the visible emissions limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation: 0.020 lb PE/mmBtu of actual heat input

Applicable Compliance Method: When firing natural gas, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filterable)/mm cu. ft, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

When firing #2 fuel oil, and/or a combination of #2 fuel oil and natural gas, the permittee may determine compliance by multiplying the maximum hourly fuel oil consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.3-1 (revised 9/98) of 2.0 lbs PE (filterable)/1,000 gallons of oil used, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

If required, compliance with the PE limitation above shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

1.c Emission Limitation: 1.6 pounds sulfur dioxide/mmBtu of actual heat input

Applicable Compliance Method: When firing fuel oil, except as provided below, compliance with the allowable sulfur dioxide emission limitation shall be demonstrated by documenting that the sulfur content of each shipment of oil received or each daily sample collected during a calendar month meets the limitation.

If the sulfur content of each shipment of oil received during a calendar month does not comply with the allowable emission limitation on an "as-received" basis, compliance with the allowable sulfur dioxide emission limitation shall be based upon an average for the calendar month of the calculated sulfur dioxide emission rates for all of the shipments during the calendar month.

When firing natural gas and/or LPG, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel.

If required, compliance with the limitation above shall be determined in accordance with Methods 1-4 and 6 of 40 CFR, Part 60, Appendix A.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
10 mmBtu/hr, natural gas and/or #2 fuel oil Powermaster, Ore and Sambower boiler (striphouse boiler)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Hasting Air Makeup Unit (9.9 MM Btu/hr) (B009)

Activity Description: Hasting air makeup unit serves to heat fresh air entering facility buildings.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
10 mmBtu/hr, natural gas/liquified petroleum gas (LPG) Hastings air makeup unit (HR2-3)	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-10(B)	0.020 lb particulate emissions (PE)/mmBtu of actual heat input
	OAC rule 3745-18-06	See A.I.2.a
	OAC rule 3745-31-05 (PTI #03-9658, issued 5/8/96)	when firing natural gas: 1.5 lbs of nitrogen oxides (NOx)/hr 0.6 lb of organic compounds (OC)/hr The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-10(B) and 3745-17-07(A).
	40 CFR, Part 63, Subpart DDDDD	See A.I.2.b.

2. Additional Terms and Conditions

2.a This emission unit is exempt from the requirements of OAC rule 3745-18-06 in accordance with OAC rule 3745-18-06(A).

2.b This emissions unit is subject to 40 CFR, Part 63, Subpart DDDDD. However, pursuant to 40 CFR, Part 63.7506(c), this emissions unit is not subject to the initial notification requirements in 40 CFR, Part 63.9(b) and is not subject to any requirements in this subpart or in Subpart A of this part (i.e., it is not subject to the emissions limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart or any other requirements in subpart A of this part).

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or LPG in this emissions unit.

[OAC rule 3745-77-07(A)(1) and PTI #03-9658]

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas and/or LPG, the permittee shall maintain a record of the type of fuel burned in this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI #03-9658]

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or LPG was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1) and PTI #03-9658]

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

1.a Emission Limitation: 0.020 lb PE/mmBtu of actual heat input

Applicable Compliance Method: When firing natural gas, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filterable)/mm cu. ft, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

When firing LPG, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly LPG consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 0.6 lb PE (filterable)/1000 gallons of LPG used, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

If required, compliance with the lb/mmBtu PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

1.b Emission Limitation: Visible emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, compliance with the visible emissions limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

1.c Emission Limitation: 1.5 lbs NOx/hr

Applicable Compliance Method: The permittee may demonstrate compliance with the hourly allowable NOx emission limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-1 (revised 7/98) of 100 lbs NOx/mm cu. ft.

If required, compliance with the hourly allowable NOx emission limitation above shall be determined in accordance with Methods 1 through 4 and 7 of 40 CFR, Part 60, Appendix A.

1.d Emission Limitation: 0.6 lb OC/hr

Applicable Compliance Method: The permittee may demonstrate compliance with the hourly allowable OC emission limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 11 lbs OC/mm cu. ft.

If required, compliance with the hourly allowable OC emission limitation above shall be determined in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
10 mmBtu/hr, natural gas/liquified petroleum gas (LPG) Hastings air makeup unit (HR2-3)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Hasting Air Makeup Unit (10 MM Btu/hr) (B010)

Activity Description: Hasting air makeup unit serves to heat fresh air entering facility buildings.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
10 mmBtu/hr, natural gas/liquified petroleum gas (LPG) Hastings air makeup unit (HR1-2)	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-10(B)	0.020 lb particulate emissions (PE)/mmBtu of actual heat input
	OAC rule 3745-18-06	See A.I.2.a
	OAC rule 3745-31-05 (PTI #03-9658, issued 5/8/96)	when firing natural gas: 1.5 lbs of nitrogen oxides (NOx)/hr 0.6 lb of organic compounds (OC)/hr The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-10(B) and 3745-17-07(A).
	40 CFR, Part 63, Subpart DDDDD	See A.I.2.b.

2. Additional Terms and Conditions

2.a This emission unit is exempt from the requirements of OAC rule 3745-18-06 in accordance with OAC rule 3745-18-06(A).

2.b This emissions unit is subject to 40 CFR, Part 63, Subpart DDDDD. However, pursuant to 40 CFR, Part 63.7506(c), this emissions unit is not subject to the initial notification requirements in 40 CFR, Part 63.9(b) and is not subject to any requirements in this subpart or in Subpart A of this part (i.e., it is not subject to the emissions limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart or any other requirements in subpart A of this part).

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or LPG in this emissions unit.

[OAC rule 3745-77-07(A)(1) and PTI #03-9658]

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas and/or LPG, the permittee shall maintain a record of the type of fuel burned in this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI #03-9658]

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or LPG was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1) and PTI #03-9658]

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

1.a Emission Limitation: 0.020 lb PE/mmBtu of actual heat input

Applicable Compliance Method: When firing natural gas, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filterable)/mm cu. ft, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

When firing LPG, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly LPG consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 0.6 lb PE (filterable)/1000 gallons of LPG used, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

If required, compliance with the lb/mmBtu PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

1.b Emission Limitation: Visible emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, compliance with the visible emissions limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

1.c Emission Limitation: 1.5 lbs NOx/hr

Applicable Compliance Method: The permittee may demonstrate compliance with the hourly allowable NOx emission limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-1 (revised 7/98) of 100 lbs NOx/mm cu. ft.

If required, compliance with the hourly allowable NOx emission limitation above shall be determined in accordance with Methods 1 through 4 and 7 of 40 CFR, Part 60, Appendix A.

1.d Emission Limitation: 0.6 lb OC/hr

Applicable Compliance Method: The permittee may demonstrate compliance with the hourly allowable OC emission limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 11 lbs OC/mm cu. ft.

If required, compliance with the hourly allowable OC emission limitation above shall be determined in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
10 mmBtu/hr, natural gas/liquified petroleum gas (LPG) Hastings air makeup unit (HR1-2)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Hasting Air Makeup Unit (9.9 MM Btu/hr) (B011)

Activity Description: Hasting air makeup unit serves to heat fresh air entering facility buildings.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
10 mmBtu/hr, natural gas/liquified petroleum gas (LPG) Hastings air makeup unit (HPR-1)	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-10(B)	0.020 lb particulate emissions (PE)/mmBtu of actual heat input
	OAC rule 3745-18-06	See A.I.2.a
	OAC rule 3745-31-05 (PTI #03-9658, issued 5/8/96)	when firing natural gas: 1.5 lbs of nitrogen oxides (NOx)/hr 0.6 lb of organic compounds (OC)/hr The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-10(B) and 3745-17-07(A).
	40 CFR, Part 63, Subpart DDDDD	See A.I.2.b.

2. Additional Terms and Conditions

2.a This emission unit is exempt from the requirements of OAC rule 3745-18-06 in accordance with OAC rule 3745-18-06(A).

2.b This emissions unit is subject to 40 CFR, Part 63, Subpart DDDDD. However, pursuant to 40 CFR, Part 63.7506(c), this emissions unit is not subject to the initial notification requirements in 40 CFR, Part 63.9(b) and is not subject to any requirements in this subpart or in Subpart A of this part (i.e., it is not subject to the emissions limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart or any other requirements in subpart A of this part).

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or LPG in this emissions unit.

[OAC rule 3745-77-07(A)(1) and PTI #03-9658]

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas and/or LPG, the permittee shall maintain a record of the type of fuel burned in this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI #03-9658]

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or LPG was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1) and PTI #03-9658]

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

1.a Emission Limitation: 0.020 lb PE/mmBtu of actual heat input

Applicable Compliance Method: When firing natural gas, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filterable)/mm cu. ft, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

When firing LPG, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly LPG consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 0.6 lb PE (filterable)/1000 gallons of LPG used, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

If required, compliance with the lb/mmBtu PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

1.b Emission Limitation: Visible emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, compliance with the visible emissions limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

1.c Emission Limitation: 1.5 lbs NOx/hr

Applicable Compliance Method: The permittee may demonstrate compliance with the hourly allowable NOx emission limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-1 (revised 7/98) of 100 lbs NOx/mm cu. ft.

If required, compliance with the hourly allowable NOx emission limitation above shall be determined in accordance with Methods 1 through 4 and 7 of 40 CFR, Part 60, Appendix A.

1.d Emission Limitation: 0.6 lb OC/hr

Applicable Compliance Method: The permittee may demonstrate compliance with the hourly allowable OC emission limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 11 lbs OC/mm cu. ft.

If required, compliance with the hourly allowable OC emission limitation above shall be determined in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
10 mmBtu/hr, natural gas/liquified petroleum gas (LPG) Hastings air makeup unit (HPR-1)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Electrostatic #1 Coating Line (K001)

Activity Description: Following the Electrostatic #1 blowoff booth, the cabinets receive an extra layer of coating as necessary in the reinforcing booth. The extra coating serves to reinforce areas of the cabinets. Following the Electrostatic #1 reinforcing booth, a top coat is automatically applied in the Ransburg booth. Following the Electrostatic #1 Ransburg booth, the cabinets go through the

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
electrostatic coating line #1 (reinforce booth, ransburg booth, vapor tunnel and a 9 mmBtu/hr natural gas/liquified petroleum gas-fired cure oven)	OAC rule 3745-17-07(A)	none (See A.I.2.a.)
	OAC rule 3745-17-11(B)	none (See A.I.2.b.)
	OAC rule 3745-21-09(K)	exempt, pursuant to OAC rule 3745-21-09(K)(4) [See A.I.2.c.]
	40 CFR, Part 63, Subpart NNNN	See A.I.2.d

2. Additional Terms and Conditions

2.a This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

2.b The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(ii), Figure II of OAC rule 3745-17-11 does not apply. Also, Table 1 does not apply because the facility is located in Marion County.

2.c This emissions unit was installed prior to October 19, 1979 and is located at the "Whirlpool Corporation (Marion Division)." Therefore, in accordance with OAC rule 3745-21-09(K)(4), the provisions of OAC rule 3745-21-09(K)(1) are not applicable to this emissions unit as long as a "modification" to this source does not occur.

2.d The permittee shall comply with all the applicable requirements in 40 CFR, Part 63, Subpart NNNN for this emissions unit. All of the requirements are listed in Part II - Specific Facility Terms and Conditions of this permit.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
electrostatic coating line #1 (reinforce booth, ransburg booth, vapor tunnel and a 9 mmBtu/hr natural gas/liquified petroleum gas-fired cure oven)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Ecoat #2: dip one coat, rinse, oven (K004)

Activity Description: Prepped cabinets are conveyed through the electrically charged, cathodic E-coat bath #2. The cabinet is then washed three times to remove any free solids. Cabinets are conveyed through the cure oven for final paint drying.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
E-coat coating line #2 (cathodic E-coat bath with rinse stages and a 9 mmBtu/hr natural gas/liquified petroleum gas-fired cure oven)	OAC rule 3745-21-09(K)	exempt, pursuant to OAC rule 3745-21-09(K)(4) [See A.I.2.a.]
	40 CFR, Part 63, Subpart NNNN	See A.I.2.b.

2. Additional Terms and Conditions

2.a This emissions unit was installed prior to October 19, 1979 and is located at the "Whirlpool Corporation (Marion Division)." Therefore, in accordance with OAC rule 3745-21-09(K)(4), the provisions of OAC rule 3745-21-09(K)(1) are not applicable to this emissions unit as long as a "modification" to this source does not occur.

2.b The permittee shall comply with all the applicable requirements in 40 CFR, Part 63, Subpart NNNN for this emissions unit. All of the requirements are listed in Part II - Specific Facility Terms and Conditions of this permit.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
E-coat coating line #2 (cathodic E-coat bath with rinse stages and a 9 mmBtu/hr natural gas/liquified petroleum gas-fired cure oven)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Ecoat #1: dip one coat, rinse, oven (K006)

Activity Description: Prepped dryer drums are conveyed through the electrically charged, cathodic E-coat bath #1. The drum is then washed three times to remove any free solids. Dryer drums are conveyed through the cure oven for final paint drying.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
E-coat coating line #1 (cathodic E-coat bath with rinse stages and a 4 mmBtu/hr natural gas/liquified petroleum gas-fired cure oven)	OAC rule 3745-21-09(K)	exempt, pursuant to OAC rule 3745-21-09(K)(4) [See A.I.2.a.]
	40 CFR, Part 63, Subpart NNNN	See A.I.2.b

2. Additional Terms and Conditions

2.a This emissions unit was installed prior to October 19, 1979 and is located at the "Whirlpool Corporation (Marion Division)." Therefore, in accordance with OAC rule 3745-21-09(K)(4), the provisions of OAC rule 3745-21-09(K)(1) are not applicable to this emissions unit as long as a "modification" to this source does not occur.

2.b The permittee shall comply with all the applicable requirements in 40 CFR, Part 63, Subpart NNNN for this emissions unit. All of the requirements are listed in Part II - Specific Facility Terms and Conditions of this permit.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
E-coat coating line #1 (cathodic E-coat bath with rinse stages and a 4 mmBtu/hr natural gas/liquified petroleum gas-fired cure oven)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Powder Paint Bake Oven (K007)

Activity Description: Following application of the organic powder coat, drums are conveyed to the bake oven for curing.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
11 mmBtu/hr, natural gas/liquified petroleum gas-fired powder bake oven	OAC rule 3745-17-07(A)	none (See A.I.2.a.)
	OAC rule 3745-17-11(B)	none (See A.I.2.b.)
	OAC rule 3745-31-05 (PTI #03-1823, issued 9/19/84)	See A.I.2.c.

2. Additional Terms and Conditions

2.a This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

2.b This emissions unit is exempt from any particulate emissions limitation in OAC rule 3745-17-11 pursuant to OAC rule 3745-17-11(A)(1)(a).

2.c No limits, pursuant to OAC rule 3745-31-05, were established in PTI #03-1823 for this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
11 mmBtu/hr, natural gas/liquified petroleum gas-fired powder bake oven	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Small Parts E-Coat and rinse stages and Cure Oven (K008)

Activity Description: Prepped small parts are conveyed through the electrically charged, cathodic E-coat bath. The part is then washed three times to remove any free solids. Small parts are conveyed through the cure oven for final paint drying.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
small parts E-coat (cathodic E-coat bath with rinse stages and a 9 mmBtu/hr natural gas/liquified petroleum gas-fired cure oven)	OAC rule 3745-31-05(A)(3) (PTI #03-17140, issued 12/14/06)	62.56 lbs volatile organic compounds (VOC)/hr See A.I.2.a.
	OAC rule 3745-31-05(C) (PTI #03-17140, issued 12/14/06)	77.28 tons of VOC per rolling, 12-month period (See A.I.2.b.i and A.II.1.)
	OAC rule 3745-21-09(K)(1)	2.8 lbs pounds of volatile organic compounds (VOC) per gallon of coating, as a daily, volume-weighted average, excluding water and exempt solvents (See A.I.2.c.)
	40 CFR, Part 60, Subpart SS	0.90 kg VOC/liter of applied coating solids, based on a monthly, volume-weighted average of the total mass of VOC's emitted to the atmosphere per volume of applied coating solids
	40 CFR, Part 63, Subpart NNNN	See A.I.2.d.

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of 40 CFR, Part 60, Subpart SS; 40 CFR, Part 63, Subpart NNNN; OAC 3745-21-09(K)(1) and OAC rule 3745-31-05(C).

2.b This permit establishes the following federally enforceable emission limitations for purposes of avoiding applicability of the Prevention of Significant Deterioration (PSD) regulations:

i. The VOC emissions shall not exceed 77.28 tons per rolling, 12-month period based on a production restriction (see A.II.1).

2. Additional Terms and Conditions (continued)

2.c The VOC content of the coatings employed in the electrocoating dip tank of this emissions unit shall comply with the VOC content limitation of 2.8 lbs VOC/gallon of coating, as a daily, volume-weighted average, excluding water and exempt solvents.

On any day when coating materials added to the dip tank exceed 2.8 pounds per gallon minus water and exempt solvents, as a daily volume-weighted average, the permittee shall perform a U.S. EPA Method 24 test to ensure that the resulting coating mixture (as applied) complies with the above limitation.

2.d The permittee shall comply with all the applicable requirements in 40 CFR, Part 63, Subpart NNNN for this emissions unit. All of the requirements are listed in Part II - Specific Facility Terms and Conditions of this permit.

II. Operational Restrictions

1. The maximum annual coating usage rate for this emission unit shall not exceed 168,000 gallons per year, based upon a rolling, 12-month summation of the monthly coating usage rates.

To ensure enforceablility during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the levels specified in the following table:

Month(s)	Maximum Allowable Coating Usage Rate (gallons)
1	14,000
1-2	28,000
1-3	42,000
1-4	56,000
1-5	70,000
1-6	84,000
1-7	98,000
1-8	112,000
1-9	126,000
1-10	140,000
1-11	154,000
1-12	168,000

After the first 12 calendar months of operation, following issuance of this permit, compliance with the annual coating usage restriction shall be based upon a rolling, 12-month summation of the monthly coating usage rates.

[OAC rule 3745-77-07(A)(1) and PTI #03-17140]

2. The VOC content of each coating mixture, as applied, shall not exceed 0.92 pound per gallon.

[OAC rule 3745-77-07(A)(1) and PTI #03-17140]

III. Monitoring and/or Record Keeping Requirements

1. Each month, the permittee shall determine the monthly, volume-weighted average of the total mass of VOC's emitted to the atmosphere per volume of applied coating solids, in kilograms per liter, calculated as follows:

III. Monitoring and/or Record Keeping Requirements (continued)

1.a Calculate the mass of VOC'S consumed (Mo+Md) during the calendar month by the following equation:

Mo+Md = [summation of (Lci X Dci X Woi) for i = 1,2, ...,n + summation of (Ldj X Ddj) for j = 1,2,...,m]

where:

Mo = the total VOC emissions, in kilograms, from all the coatings consumed, as received

Md = the total VOC emissions, in kilograms, from all the solvents added to the coatings

Lci = the total volume, in liters, of coating i consumed, as received

Ldj = the total volume, in liters, of solvent j added to coatings

Dci = density of coating i, as received (kilograms per liter)

Ddj = density of solvent j added to coatings (kilograms per liter)

Woi = the fraction, by weight, of the VOC'S in coating i, as received

n = the number of different coatings used during the calendar month

m = the number of different solvents added to coatings during the calendar month

1.b Calculate the total volume of coatings solids used (Ls) in the calendar month by the following equation:

Ls = summation of (Lci X Vsi) for i = 1, 2, ..., n

where:

Ls = the volume of all the coatings solids consumed (liters)

Lci = the volume of coating i consumed, as received (liters)

Vsi = the fraction, by volume, of the solids in coating i, as received

n = the number of different coatings used during the calendar month

1.c Calculate the volume-weighted average mass of VOC'S consumed per unit volume of coating solids applied during the calendar month by the following equation:

G = (Mo+Md)/(Ls X T)

where:

G = the volume-weighted average mass of VOC'S in coatings consumed in a calendar month per unit volume of applied coating solids (kilograms per liter)

T = transfer efficiency (0.95)

[OAC rule 3745-77-07(C)(1) and PTI #03-17140]

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall collect and record the following information each day for the electrocoating dip tank:

a. The name and identification number of each material added to the dip tank;

b. The VOC content, excluding water and exempt solvents, in pounds per gallon, of each material added to the dip tank;

c. The number of gallons of each material added to the dip tank, excluding water and exempt solvents; and

d. The daily, volume-weighted average VOC content of the combination of materials added to the dip tank, excluding water and exempt solvents, i.e., the sum of (b) x (c) for all the individual materials, divided by the total number of gallons of all materials.

[OAC rule 3745-77-07(C)(1) and PTI #03-17140]

3. On days when the permittee adds coating materials to the small parts e-coat line that do not comply with the daily volume-weighted average of 2.8 pounds VOC per gallon of coating, excluding water and exempt solvents, the permittee shall record the results of the required U.S. EPA Method 24 test (See A.I.2.c).

[OAC rule 3745-77-07(C)(1) and PTI #03-17140]

4. The permittee shall maintain monthly records of the following information for this emission unit:

a. The coating usage rate, in gallons;

b. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month coatings usage rate, in gallons;

c. During the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative coating usage rate for each calendar month;

d. The calculated VOC emissions for each month, in tons, using the following equation:

VOC emissions = (0.92 lb VOC/gallon) x (A.III.4.a) x (ton/2000 lbs); and

e. Beginning the first month after the first12 calendar months of operation following the issuance of this permit, the rolling 12-month VOC emissions, in tons.

[OAC rule 3745-77-07(C)(1) and PTI #03-17140]

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the VOC emission limitation of 0.9 kg VOC/liter of coating solids (based on a monthly, volume-weighted average).

These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

[OAC rule 3745-77-07(C)(1) and PTI #03-17140]

2. The permittee shall notify the Director (the Ohio EPA, Northwest District Office) in writing of any daily record showing that the daily volume-weighted average VOC content exceeded the applicable limitation of 2.8 pounds VOC/gallon of coating, excluding water and exempt solvents. The notification shall include a copy of such record and shall be sent to the Director (the Ohio EPA, Northwest District Office) within 45 days after the exceedance occurs.

[OAC rule 3745-77-07(C)(1) and PTI #03-17140]

IV. Reporting Requirements (continued)

3. The permittee shall submit quarterly reports of all days when a U.S. EPA Method 24 test was required. If no U.S. EPA Method 24 tests were required to be performed during the calendar quarter because the daily volume-weighted average VOC contents of materials added to the coating line were less than 2.8 pounds VOC per gallon coating, excluding water and exempt solvents, a statement indicating that fact will still be required.

These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

[OAC rule 3745-77-07(C)(1) and PTI #03-17140]

4. The permittee shall submit deviation (excursion) reports which identify the following:

a. All exceedances of the rolling, 12-month VOC emission limitation of 77.28 tons;

b. All exceedances of the rolling, 12-month coatings usage restriction of 168,000 gallons

c. For the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative coating usage restrictions specified in section A.II.1; and

d. All exceedances of the 0.92 pound per gallon VOC content.

These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

[OAC rule 3745-77-07(C)(1) and PTI #03-17140]

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

1.a Emission Limitation: 62.56 lbs VOC/hr

Applicable Compliance Method: The hourly emission limitation represents the potential to emit* for this emissions unit. Therefore, no record keeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

*The potential to emit was calculated based on multiplying the maximum coating usage rate of 68 gallons per hour by the maximum VOC content of 0.92 pound per gallon.

If required, the permittee shall demonstrate compliance with the hourly allowable VOC emission limitation above based on the results of emission testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

1.b Emission Limitation: 77.28 tons of OC per rolling, 12-month period

Applicable Compliance Method: Compliance shall be based upon the record keeping requirements in section A.III.4 of this permit.

V. Testing Requirements (continued)

1.c Emission Limitation: 2.8 lbs pounds of VOC per gallon of coating, as a daily, volume-weighted average, excluding water and exempt solvents

Applicable Compliance Method: Compliance shall be based upon the record keeping required in Section A.III.2 of the terms and conditions of this permit. The daily, volume-weighted average of all the materials added to the dip tank shall be calculated using the following equation:

daily, volume-weighted average = [summation of (Gi X VOCi)] / summation of Gi for i = 1 to n

where:

i = 1, 2, 3, ...n

n = the total number of the different types of materials added to the dip tank for that day

Gi = the number of gallons of material i (excluding water and exempt solvents) added to the dip tank for that day

VOCi = the VOC content of material i, in pounds/gallon of material, excluding water and exempt solvents

1.d Emission Limitation: 0.90 kg VOC/liter of applied coating solids, based on a monthly, volume-weighted average of the total mass of VOC's emitted to the atmosphere per volume of applied coating solids

Applicable Compliance Method: Compliance shall be based upon the record keeping required in Section A.III.1 of the terms and conditions of this permit.

2. If required, U.S. EPA Method 24 shall be used to determine the VOC contents of all the coatings, as applied.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
small parts E-coat (cathodic E-coat bath with rinse stages and a 9 mmBtu/hr natural gas/liquified petroleum gas-fired cure oven)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Pyrolysis Furnace #1 (N001)

Activity Description: For removal of cured hydrocarbon coatings from metal parts by pyrolysis or heating.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
131 lbs/hr pyrolysis furnace, with afterburner (pyrolysis furnace #1)	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-09(B)	0.10 lb particulate emissions (PE)/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator
	OAC rule 3745-31-05 (PTI #03-1823, issued 9/19/84)	See A.I.2.a.

2. Additional Terms and Conditions

2.a No limits, pursuant to OAC rule 3745-31-05, were established in PTI #03-1823 for this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1)]

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from this emissions unit and (b) describe any corrective action taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1)]

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

1.a Emission Limitation: Visible emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule

Applicable Compliance Method: If required, compliance with the visible emissions limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation: 0.10 lb PE/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator

Applicable Compliance Method: If required, compliance with the PE limitation above shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
131 lbs/hr pyrolysis furnace, with afterburner (pyrolysis furnace #1)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Pyrolysis Furnace #4 (N002)

Activity Description: For removal of cured hydrocarbon coatings from metal parts by pyrolysis or heating.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
131 lbs/hr pyrolysis furnace, with afterburner (pyrolysis furnace #4)	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-09(B)	0.10 lb particulate emissions (PE)/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator
	OAC rule 3745-31-05 (PTI #03-3149, issued 7/29/87)	0.1 lb PE/hr The requirements of this rule include compliance with OAC rules 3745-17-07(A) and 3745-17-09(B).

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1)]

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from this emissions unit and (b) describe any corrective action taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1)]

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

1.a Emission Limitation: Visible emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule

Applicable Compliance Method: If required, compliance with the visible emissions limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation: 0.10 lb PE/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator

Applicable Compliance Method: If required, compliance with the PE limitation above shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

1.c Emission Limitation: 0.1 lb PE/hr

Applicable Compliance Method: If required, compliance with the hourly PE limitation shall be determined in accordance with Methods 1 - 5 of 40 CFR, Part 60, Appendix A.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
131 lbs/hr pyrolysis furnace, with afterburner (pyrolysis furnace #4)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Pyrolysis Furnace #5 (N003)

Activity Description: For removal of cured hydrocarbon coatings from metal parts by pyrolysis or heating.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
131 lbs/hr pyrolysis furnace, with afterburner (pyrolysis furnace #5)	OAC rule 3745-17-07(A)	Visible emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-09(B)	0.10 lb particulate emissions (PE)/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator
	OAC rule 3745-31-05 (PTI #03-3149, issued 7/29/87)	0.1 lb PE/hr The requirements of this rule include compliance with OAC rules 3745-17-07(A) and 3745-17-09(B).

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1)]

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from this emissions unit and (b) describe any corrective action taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1)]

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

1.a Emission Limitation: Visible emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule

Applicable Compliance Method: If required, compliance with the visible emissions limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation: 0.10 lb PE/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator

Applicable Compliance Method: If required, compliance with the PE limitation above shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

1.c Emission Limitation: 0.1 lb PE/hr

Applicable Compliance Method: If required, compliance with the hourly PE limitation shall be determined in accordance with Methods 1 - 5 of 40 CFR, Part 60, Appendix A.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
131 lbs/hr pyrolysis furnace, with afterburner (pyrolysis furnace #5)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Pyrolysis Furnace #8 (N008)

Activity Description: For removal of cured hydrocarbon coatings from metal parts by pyrolysis or heating.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
131 lbs/hr pyrolysis furnace, with afterburner (pyrolysis furnace #8)	OAC rule 3745-17-07(A)	See A.I.2.a.
	OAC rule 3745-17-09(B)	0.10 lb particulate emissions (PE)/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator
	OAC rule 3745-31-05 (PTI #03-13565, issued 3/13/01)	1.50 lbs PE/hr, 6.60 TPY PE See A.I.2.b &.c. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-09(B).

2. Additional Terms and Conditions

2.a The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05.

2.b Best available technology (BAT) for this emissions unit has been determined to be the use of an afterburner.

2.c Visible emissions from this emissions unit shall not exceed 5% opacity, except for 6 minutes in any continuous period during which opacity shall not exceed 10%.

II. Operational Restrictions

1. The emissions unit shall be installed, operated and maintained in accordance with the manufacturer's specifications. The permittee shall not change any of the manufacturer's factory preset parameters for the furnace, or physically modify the furnace in any way, without first verifying with the manufacturer that the change(s) would not adversely affect air contaminant emissions from the unit.

[OAC rule 3745-77-07(A)(1) and PTI #03-13565]

II. Operational Restrictions (continued)

2. The air contaminant control device for this emissions unit shall be designed and operated in accordance with the following requirements:

a. the secondary combustion chamber shall be operated so that the exit gas temperature from the chamber is, at a minimum, 1500 degrees Fahrenheit, taking into account normal start-up procedures.

b. the secondary chamber shall allow for a minimum retention time of 0.5 second at 1500 degrees Fahrenheit, taking into account normal start-up procedures.

[OAC rule 3745-77-07(A)(1) and PTI #03-13565]

3. The permittee shall adhere to the manufacturer's recommendations pertaining to the operation of this furnace and shall comply with the following operational restrictions:

a. the permittee shall ensure that the furnace is operated only by properly trained personnel who have read, and understand, the furnace's operation manual;

b. prior to start-up of the furnace, the permittee shall remove ash residue left inside the furnace after the previous cycle;

c. the permittee shall not operate the furnace if the built-in safeguards and interlocks (furnace excess temperature, afterburner excess temperature, low gas pressure switch, high gas pressure switch, and low water pressure switch) are not operating properly; and

d. the permittee shall not process uncured paint or paint sludge, paint filter, waste powder from powder coating operations, nitrocellulose paints, solvents, thinners, PVC, lead, plastisols, rubber-coated material, oil, wood, grease, trash, magnesium, oil filters, ammunition, explosives, fertilizer, or any hazardous waste materials as defined in 40 CFR Part 261, Subpart D in this furnace. Paint hooks covered with coatings that may contain chlorine (e.g. PVC), fluorine (e.g. Teflon), or elements other than carbon, hydrogen, and oxygen are also prohibited from being processed in this furnace.

[OAC rule 3745-77-07(A)(1) and PTI #03-13565]

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1) and PTI #03-13565]

2. The permittee shall install, operate, and properly maintain a temperature gauge which monitors the temperature of the secondary combustion chamber. The permittee shall record the secondary combustion chamber temperature prior to each batch operation.

[OAC rule 3745-77-07(C)(1) and PTI #03-13565]

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall maintain an operation/maintenance log for the emissions unit. The log, at a minimum, shall contain the following information:

a. the dates the emissions unit was operated

b. the number of batches processed for each date the emissions unit was operated; and

c. the dates and descriptions of any additional maintenance activities performed on this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI #03-13565]

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that provide the following information for each period during which the secondary chamber exhaust gas temperature fell below the applicable requirement:

a. the date of the excursion;

b. the temperature values during the excursion;

c. the cause(s) for the excursion; and

d. the corrective action which has been or will be taken to prevent similar excursions in the future.

These quarterly deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1) and PTI #03-13565]

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from this emissions unit and (b) describe any corrective action taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1) and PTI #03-13565]

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

1.a Emission Limitation: 0.10 lb PE/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator

Applicable Compliance Method: If required, compliance with the PE limitation above shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

1.b Emission Limitation: 1.50 lbs PE/hr

Applicable Compliance Method: The hourly allowable PE limitation was developed by applying the requirement of 0.1 lb PE/100 lbs material charged to a maximum charging capacity of 1500 lbs/hr. If required, compliance with hourly allowable PE limitation shall be determined in accordance with Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

V. Testing Requirements (continued)

1.c Emission Limitation: 6.60 TPY PE

Applicable Compliance Method: The annual allowable PE limitation was developed by multiplying the hourly allowable PE limitation by 8760, and then dividing by 2000. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual limitation.

1.d Emission Limitation: 5% opacity, except for 6 minutes in any continuous 60 minute period during which opacity shall not exceed 10%

Applicable Compliance Method: If required, the permittee shall demonstrate compliance in accordance with Method 9 of 40 CFR, Part 60, Appendix A

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
131 lbs/hr pyrolysis furnace, with afterburner (pyrolysis furnace #8)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Pyrolysis Furnace #9 (N009)

Activity Description: For removal of cured hydrocarbon coatings from metal parts by pyrolysis or heating.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
131 lbs/hr pyrolysis furnace, with afterburner (pyrolysis furnace #9)	OAC rule 3745-17-07(A)	See A.I.2.a.
	OAC rule 3745-17-09(B)	0.10 lb particulate emissions (PE)/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator
	OAC rule 3745-31-05 (PTI #03-13565, issued 3/13/01)	1.50 lbs PE/hr, 6.60 TPY PE See A.I.2.b &.c. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-09(B).

2. Additional Terms and Conditions

2.a The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05.

2.b Best available technology (BAT) for this emissions unit has been determined to be the use of an afterburner.

2.c Visible emissions from this emissions unit shall not exceed 5% opacity, except for 6 minutes in any continuous period during which opacity shall not exceed 10%.

II. Operational Restrictions

1. The emissions unit shall be installed, operated and maintained in accordance with the manufacturer's specifications. The permittee shall not change any of the manufacturer's factory preset parameters for the furnace, or physically modify the furnace in any way, without first verifying with the manufacturer that the change(s) would not adversely affect air contaminant emissions from the unit.

[OAC rule 3745-77-07(A)(1) and PTI #03-13565]

II. Operational Restrictions (continued)

2. The air contaminant control device for this emissions unit shall be designed and operated in accordance with the following requirements:

a. the secondary combustion chamber shall be operated so that the exit gas temperature from the chamber is, at a minimum, 1500 degrees Fahrenheit, taking into account normal start-up procedures.

b. the secondary chamber shall allow for a minimum retention time of 0.5 second at 1500 degrees Fahrenheit, taking into account normal start-up procedures.

[OAC rule 3745-77-07(A)(1) and PTI #03-13565]

3. The permittee shall adhere to the manufacturer's recommendations pertaining to the operation of this furnace and shall comply with the following operational restrictions:

a. the permittee shall ensure that the furnace is operated only by properly trained personnel who have read, and understand, the furnace's operation manual;

b. prior to start-up of the furnace, the permittee shall remove ash residue left inside the furnace after the previous cycle;

c. the permittee shall not operate the furnace if the built-in safeguards and interlocks (furnace excess temperature, afterburner excess temperature, low gas pressure switch, high gas pressure switch, and low water pressure switch) are not operating properly; and

d. the permittee shall not process uncured paint or paint sludge, paint filter, waste powder from powder coating operations, nitrocellulose paints, solvents, thinners, PVC, lead, plastisols, rubber-coated material, oil, wood, grease, trash, magnesium, oil filters, ammunition, explosives, fertilizer, or any hazardous waste materials as defined in 40 CFR Part 261, Subpart D in this furnace. Paint hooks covered with coatings that may contain chlorine (e.g. PVC), fluorine (e.g. Teflon), or elements other than carbon, hydrogen, and oxygen are also prohibited from being processed in this furnace.

[OAC rule 3745-77-07(A)(1) and PTI #03-13565]

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

e. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1) and PTI #03-13565]

2. The permittee shall install, operate, and properly maintain a temperature gauge which monitors the temperature of the secondary combustion chamber. The permittee shall record the secondary combustion chamber temperature prior to each batch operation.

[OAC rule 3745-77-07(C)(1) and PTI #03-13565]

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall maintain an operation/maintenance log for the emissions unit. The log, at a minimum, shall contain the following information:

a. the dates the emissions unit was operated

b. the number of batches processed for each date the emissions unit was operated; and

c. the dates and descriptions of any additional maintenance activities performed on this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI #03-13565]

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that provide the following information for each period during which the secondary chamber exhaust gas temperature fell below the applicable requirement:

a. the date of the excursion;

b. the temperature values during the excursion;

c. the cause(s) for the excursion; and

d. the corrective action which has been or will be taken to prevent similar excursions in the future.

These quarterly deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1) and PTI #03-13565]

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from this emissions unit and (b) describe any corrective action taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1) and PTI #03-13565]

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

1.a Emission Limitation: 0.10 lb PE/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator

Applicable Compliance Method: If required, compliance with the PE limitation above shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

1.b Emission Limitation: 1.50 lbs PE/hr

Applicable Compliance Method: The hourly allowable PE limitation was developed by applying the requirement of 0.1 lb PE/100 lbs material charged to a maximum charging capacity of 1500 lbs/hr. If required, compliance with hourly allowable PE limitation shall be determined in accordance with Methods 1 through 5 of 40 CFR, Part 60, Appendix A.

V. Testing Requirements (continued)

1.c Emission Limitation: 6.60 TPY PE

Applicable Compliance Method: The annual allowable PE limitation was developed by multiplying the hourly allowable PE limitation by 8760, and then dividing by 2000. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual limitation.

1.d Emission Limitation: 5% opacity, except for 6 minutes in any continuous 60 minute period during which opacity shall not exceed 10%

Applicable Compliance Method: If required, the permittee shall demonstrate compliance in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
131 lbs/hr pyrolysis furnace, with afterburner (pyrolysis furnace #9)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Pyrolysis Furnace #10 (N010)

Activity Description: For removal of cured hydrocarbon coatings from metal parts by pyrolysis or heating.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
131 lbs/hr pyrolysis furnace, with afterburner (pyrolysis furnace #10)	OAC rule 3745-17-07(A)	See A.I.2.a
	OAC rule 3745-17-09(B)	See A.I.2.a
	OAC rule 3745-31-05(A)(3) (PTI #03-13606, issued 6/19/01)	0.13 lb PE/hr and 0.57 TPY PE
		0.05 lb PE/100 lbs materials chargec
		Control requirements (See A.I.2.b)
		Visible Emission Restrictions (See A.I.2.c)
		See A.I.2.d

2. Additional Terms and Conditions

2.a The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2.b Best Available Technology (BAT) for this emissions unit has been determined to be the use of an afterburner.

2.c Visible particulate emissions from this emissions unit shall not exceed 5% opacity except for 6 minutes in any continuous period during which opacity shall not exceed 10%.

2.d The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-09(B).

II. Operational Restrictions

1. The emissions unit shall be installed, operated and maintained in accordance with the manufacturer's specifications. The permittee shall not change any of the manufacturer's factory preset parameters for the furnace, or physically modify the furnace in any way, without first verifying with the manufacturer that the change(s) would not adversely affect air contaminant emissions from the unit.

[OAC rule 3745-77-07(A)(1) and PTI #03-13606]

II. Operational Restrictions (continued)

2. The air contaminant control device for this emissions unit shall be designed and operated in accordance with the following requirements:

a. the secondary combustion chamber shall be operated so that the exit gas temperature from the chamber is, at a minimum, 1500 degrees Fahrenheit, taking into account normal start-up procedures.

b. the secondary chamber shall allow for a minimum retention time of 0.5 seconds at 1500 degrees Fahrenheit, taking into account normal start-up procedures.

[OAC rule 3745-77-07(A)(1) and PTI #03-13606]

3. The permittee shall adhere to the manufacturer's recommendations pertaining to the operation of this furnace and shall comply with the following operational restrictions:

a. the permittee shall ensure that the furnace is operated only by properly trained personnel who have read, and understand, the furnace's operation manual;

b. prior to start-up of the furnace, the permittee shall remove ash residue left inside the furnace after the previous cycle;

c. the permittee shall not operate the furnace if the built-in safeguards and interlocks (furnace excess temperature, afterburner excess temperature, low gas pressure switch, high gas pressure switch, and low water pressure switch) are not operating properly; and

d. the permittee shall not process uncured paint or paint sludge, paint filter, waste powder from powder coating operations, nitrocellulose paints, solvents, thinners, PVC, lead, plastisols, rubber-coated material, oil, wood, grease, trash, magnesium, oil filters, ammunition, explosives, fertilizer, or any hazardous waste materials as defined in 40 CFR Part 261, Subpart D in this furnace. Paint hooks covered with coatings that may contain chlorine (e.g. PVC), fluorine (e.g. Teflon), or elements other than carbon, hydrogen, and oxygen are also prohibited from being processed in this furnace.

[OAC rule 3745-77-07(A)(1) and PTI #03-13606]

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall install, operate, and properly maintain a temperature gauge which monitors the temperature of the secondary combustion chamber. The permittee shall record the secondary combustion chamber temperature prior to each batch operation.

[OAC rule 3745-77-07(C)(1) and PTI #03-13606]

2. The permittee shall maintain an operation/maintenance log for the emissions unit. The log, at a minimum, shall contain the following information:

a. the dates the emissions unit was operated

b. the number of batches processed for each date the emissions unit was operated; and

c. the dates and descriptions of any additional maintenance activities performed on this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI #03-13606]

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which provide the following information for each period during which the secondary chamber exhaust gas temperature fell below the applicable requirement:

a. the date of the excursion;

b. the temperature values during the excursion;

c. the cause(s) for the excursion; and

d. the corrective action which has been or will be taken to prevent similar excursions in the future.

[OAC rule 3745-77-07(C)(1) and PTI #03-13606]

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of the terms and conditions of this permit shall be determined in accordance with the following methods:

1.a Emission Limitation: 0.13 lb PE/hr, 0.57 TPY PE

Applicable Compliance Method: The lb/hr emission limitation was developed by multiplying the emission limitation of 0.05 lb PE/100 lbs of material charged by a maximum charging rate of 2100 lbs/8 hrs. If required, compliance with the particulate emission limitations shall be determined in accordance with the test method and procedures in Method 5 of 40 CFR Part 60, Appendix A.

The TPY limit was developed by multiplying the lb/hr limitation by 8760 hrs/yr operations and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the lb/hr limitation, compliance will also be shown with the annual limitation.

1.b Emission Limitation: 0.05 lbs PE/100 lbs of material charged

Applicable Compliance Method: This emission limitation was established with company supplied data from a similar emissions unit. If required, compliance with the particulate emission limitation shall be determined in accordance with the test method and procedures in Method 5 of 40 CFR, Part 60, Appendix A.

1.c Emission Limitation: 5% opacity except for 6 minutes in any continuous 60 minute period during which opacity shall not exceed 10%.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
131 lbs/hr pyrolysis furnace, with afterburner (pyrolysis furnace #10)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Pyrolysis Furnace #11 (N011)

Activity Description: For removal of cured hydrocarbon coatings from metal parts by pyrolysis or heating.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
131 lbs/hr pyrolysis furnace, with afterburner (pyrolysis furnace #11)	OAC rule 3745-17-07(A)	See A.I.2.a
	OAC rule 3745-17-09(B)	See A.I.2.a
	OAC rule 3745-31-05(A)(3) (PTI #03-13606, issued 6/19/01)	0.13 lb PE/hr and 0.57 TPY PE
		0.05 lb PE/100 lbs materials charged
		Control requirements (See A.I.2.b)
		Visible Emission Restrictions (See A.I.2.c)
		See A.I.2.d

2. Additional Terms and Conditions

2.a The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2.b Best Available Technology (BAT) for this emissions unit has been determined to be the use of an afterburner.

2.c Visible particulate emissions from this emissions unit shall not exceed 5% opacity except for 6 minutes in any continuous period during which opacity shall not exceed 10%.

2.d The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-09(B).

II. Operational Restrictions

1. The emissions unit shall be installed, operated and maintained in accordance with the manufacturer's specifications. The permittee shall not change any of the manufacturer's factory preset parameters for the furnace, or physically modify the furnace in any way, without first verifying with the manufacturer that the change(s) would not adversely affect air contaminant emissions from the unit.

[OAC rule 3745-77-07(A)(1) and PTI #03-13606]

II. Operational Restrictions (continued)

2. The air contaminant control device for this emissions unit shall be designed and operated in accordance with the following requirements:

a. the secondary combustion chamber shall be operated so that the exit gas temperature from the chamber is, at a minimum, 1500 degrees Fahrenheit, taking into account normal start-up procedures.

b. the secondary chamber shall allow for a minimum retention time of 0.5 seconds at 1500 degrees Fahrenheit, taking into account normal start-up procedures.

[OAC rule 3745-77-07(A)(1) and PTI #03-13606]

3. The permittee shall adhere to the manufacturer's recommendations pertaining to the operation of this furnace and shall comply with the following operational restrictions:

a. the permittee shall ensure that the furnace is operated only by properly trained personnel who have read, and understand, the furnace's operation manual;

b. prior to start-up of the furnace, the permittee shall remove ash residue left inside the furnace after the previous cycle;

c. the permittee shall not operate the furnace if the built-in safeguards and interlocks (furnace excess temperature, afterburner excess temperature, low gas pressure switch, high gas pressure switch, and low water pressure switch) are not operating properly; and

d. the permittee shall not process uncured paint or paint sludge, paint filter, waste powder from powder coating operations, nitrocellulose paints, solvents, thinners, PVC, lead, plastisols, rubber-coated material, oil, wood, grease, trash, magnesium, oil filters, ammunition, explosives, fertilizer, or any hazardous waste materials as defined in 40 CFR Part 261, Subpart D in this furnace. Paint hooks covered with coatings that may contain chlorine (e.g. PVC), fluorine (e.g. Teflon), or elements other than carbon, hydrogen, and oxygen are also prohibited from being processed in this furnace.

[OAC rule 3745-77-07(A)(1) and PTI #03-13606]

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall install, operate, and properly maintain a temperature gauge which monitors the temperature of the secondary combustion chamber. The permittee shall record the secondary combustion chamber temperature prior to each batch operation.

[OAC rule 3745-77-07(C)(1) and PTI #03-13606]

2. The permittee shall maintain an operation/maintenance log for the emissions unit. The log, at a minimum, shall contain the following information:

a. the dates the emissions unit was operated

b. the number of batches processed for each date the emissions unit was operated; and

c. the dates and descriptions of any additional maintenance activities performed on this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI #03-13606]

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which provide the following information for each period during which the secondary chamber exhaust gas temperature fell below the applicable requirement:

a. the date of the excursion;

b. the temperature values during the excursion;

c. the cause(s) for the excursion; and

d. the corrective action which has been or will be taken to prevent similar excursions in the future.

[OAC rule 3745-77-07(C)(1) and PTI #03-13606]

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of the terms and conditions of this permit shall be determined in accordance with the following methods:

1.a Emission Limitation: 0.13 lb PE/hr, 0.57 TPY PE

Applicable Compliance Method: The lb/hr emission limitation was developed by multiplying the emission limitation of 0.05 lb PE/100 lbs of material charged by a maximum charging rate of 2100 lbs/8 hrs. If required, compliance with the particulate emission limitations shall be determined in accordance with the test method and procedures in Method 5 of 40 CFR Part 60, Appendix A.

The TPY limit was developed by multiplying the lb/hr limitation by 8760 hrs/yr operations and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the lb/hr limitation, compliance will also be shown with the annual limitation.

1.b Emission Limitation: 0.05 lbs PE/100 lbs of material charged

Applicable Compliance Method: This emission limitation was established with company supplied data from a similar emissions unit. If required, compliance with the particulate emission limitation shall be determined in accordance with the test method and procedures in Method 5 of 40 CFR, Part 60, Appendix A.

1.c Emission Limitation: 5% opacity except for 6 minutes in any continuous 60 minute period during which opacity shall not exceed 10%.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
131 lbs/hr pyrolysis furnace, with afterburner (pyrolysis furnace #11)	None	None

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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THIS IS THE LAST PAGE OF THE PERMIT

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Statement of Basis For Title V Permit

Part I - General	
Company Name	Whirlpool Corporation - Marion Division
Premise Number	0351010012
What makes this facility a Title V facility?	VOC, HAPs
Has each insignificant emissions unit been reviewed to confirm it meets the definition in OAC rule 3745-77-01 (U)?	YES
Were there any "common control" issues associated with this facility? If yes, provide a summary of those issues and explain how the DAPC decided to resolve them.	NO
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a minor permit modification per OAC rule 3745-77-08(C)(1)	N/A
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a significant permit modification per OAC rule 3745-77-08(C)(3)	N/A
Please identify the affected unit(s)and associated PTI, if applicable, along with a brief description of any changes to the permit document that qualify as a reopening per OAC rule 3745-77-08(D)	N/A
Please identify the affected unit(s) and associated PTI, if applicable, along with a brief description of any changes to the permit document resulting from a renewal per OAC rule 3745-77-08(E)	N/A

Part II (State and Federally Enforceable Requirements)			
Term and Condition (paragraph)	Basis		Comments
	SIP (3745-)	Other	
A.1		40 CFR Part 63	States applicability of MACT rule Subpart DDDDD for emissions units B002, B003, B005, B009, B010 and B011.
A.2		40 CFR Part 63	States applicability of MACT rule Subpart NNNN for emissions units K001, K004, K006 and K008.

C Instructions for Part II:

Each paragraph in Part II must be identified and the remainder of the table completed. If the SIP (not including 31-05) is the basis for the term and condition, identify the specific rule. If the SIP is not the basis for the term and condition, place an "N" in the column under "SIP." If the basis for the term and condition is something other than the SIP, including 3745-31-05, NSPS or MACT, a "Y" should be noted in the "Other" column, and if not, an "N" should be noted. Whether the basis for the term and condition is the "SIP" or "Other," an explanation of each term and condition in Part II must be provided in the "Comments" section.

Part III (Requirements Within the State and Federally Enforceable Section)																
Any unusual requirements or aspects of the terms and conditions in Part III that are not self-explanatory should be explained in the appropriate comment field or in a paragraph following the table for Part III.																
EU(s)	Limitation	Basis		ND	OR	M	St	ENF	R	St	Rp	St	ET	Misc	Comments	
		SIP (3745-)	Other													
B002, B003,	Visible PE from any stack shall not exceed 20% opacity as a six-minute average, except as provided by rule.	17-07(A)	N	N	Y	Y	N	N	Y	N	Y	N	N	N	OR- Combust only natural gas, LPG or #2 fuel oil. M and R includes type of fuel and fuel usage. A CEM is not economically justified. CAM is not currently applicable. ET-The M, R & Rp requirements are sufficient to demonstrate compliance without requiring formal Method 9 readings being conducted.	

B002, B003,	0.020 lb PE/mmBtu of actual heat input	17-10(B)	N	N	Y	Y	N	N	Y	N	Y	N	N	N	OR- Combust only natural gas, LPG or #2 fuel oil. M and R includes type of fuel and fuel usage. A CEM is not economically justified. CAM is not currently applicable. ET-Calculations based on appropriate emission factors, maximum hourly fuel usage and dividing by maximum heat input capacity are sufficient to show compliance, therefore, no testing is required.
B002, B003,	1.6 lbs SO_2/mmBtu of actual heat input	18-08(D)	N	N	Y	Y	N	N	Y	N	Y	N	N	N	OR- Combust only natural gas, LPG or #2 fuel oil and maximum sulfur content of #2 fuel oil. M and R includes type of fuel, fuel usage, #2 fuel oil sulfur content, #2 fuel oil heat content and the calculated SO_2 emission rate (lbs/mmBtu) of #2 fuel oil not to exceed 1.6 lbs/mmBtu. A CEM is not economically justified. CAM is not currently applicable. ET-This limitation is based on the maximum sulfur content of natural gas allowed for this emission unit and represents the worst case scenario emissions, therefore, no testing is required.
B005	Visible PE from any stack shall not exceed 20% opacity as a six-minute average, except as provided by rule.	17-07(A)	N	N	Y	Y	N	N	Y	N	Y	N	N	N	OR- Combust only natural gas or #2 fuel oil. M and R includes type of fuel and fuel usage. A CEM is not economically justified. ET-The M, R & Rp requirements are sufficient to demonstrate compliance without requiring formal Method 9 readings being conducted.
B005	0.020 lb PE/mmBtu of actual heat input	17-10(B)	N	N	Y	Y	N	N	Y	N	Y	N	N	N	OR- Combust only natural gas or #2 fuel oil. M and R includes type of fuel and fuel usage. A CEM is not economically justified. CAM is not currently applicable. ET-Calculations based on appropriate emission factors, maximum hourly fuel usage and dividing by maximum heat input capacity are sufficient to show compliance, therefore, no testing is required.

B005	1.6 lbs SO_2/mmBtu of actual heat input	18-08(D)	N	N	Y	Y	N	N	Y	N	Y	N	N	N	OR- Combust only natural gas or #2 fuel oil and maximum sulfur content of #2 fuel oil. M and R includes type of fuel, fuel usage, #2 fuel oil sulfur content, #2 fuel oil heat content and the calculated SO_2 emission rate (lbs/mmBtu) of #2 fuel oil not to exceed 1.6 lbs/mmBtu. A CEM is not economically justified. CAM is not currently applicable. ET-This limitation is based on the maximum sulfur content of natural gas allowed for this emission unit and represents the worst case scenario emissions, therefore, no testing is required.
B009, B010, B011	Visible PE from any stack shall not exceed 20% opacity as a six-minute average, except as provided by rule.	17-07(A)	N	N	Y	Y	N	N	Y	N	Y	N	N	N	OR- Combust only natural gas or LPG. M and R includes type of fuel and fuel usage. A CEM is not economically justified. CAM is not currently applicable. ET-The M, R & Rp requirements are sufficient to demonstrate compliance without requiring formal Method 9 readings being conducted.
B009, B010, B011	0.020 lb PE/mmBtu of actual heat input	17-10(B)	N	N	Y	Y	N	N	Y	N	Y	N	N	N	OR- Combust only natural gas or LPG. M and R includes type of fuel and fuel usage. A CEM is not economically justified. CAM is not currently applicable. ET-Calculations based on appropriate emission factors, maximum hourly fuel usage and dividing by maximum heat input capacity are sufficient to show compliance, therefore, no testing is required.
K001, K007	Exempt	17-07(A)	N	Y	N	N	N	N	N	N	N	N	N	N	ND-These emissions units are exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because the emissions unit is not subject to the requirements of OAC rule 3745-17-11. M, R, Rp & ET-There are no emissions limitations established pursuant to this rule, therefore, no monitoring, recordkeeping, reporting or emissions testing is required.

K001, K007	Exempt	17-11(B)	N	Y	N	N	N	N	N	N	N	N	N	N	ND-The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. Also, Table 1 does not apply because the facility is located in Marion County. M, R, Rp & ET-There are no emissions limitations established pursuant to this rule, therefore, no monitoring, recordkeeping, reporting or emissions testing is required.
N001, N002, N003	Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.	17-07(A)	N	N	N	Y	N	N	Y	N	Y	N	N	N	ET-The M, R & Rp requirements are sufficient to demonstrate compliance without requiring formal Method 9 readings being conducted.
N001, N002, N003, N008, N009	0.10 lb PE/100 lbs of liquid, semi-solid or solid refuse and salvageable material charged to the incinerator	17-09(B)	N	N	N	Y	N	N	Y	N	Y	N	N	N	ET-The company has supplied testing data from a similar unit and current M, R and Rp requirements are considered sufficient to ensure ongoing compliance.
K008	2.8 lbs VOC/ gallon coating, excluding water and exempt solvents	21-09(K)(1)	N	N	N	Y	N	N	Y	N	Y	N	Y	N	
K001, K004, K006	Exempt	21-09(K)	N	Y	N	N	N	N	N	N	N	N	N	N	ND-These emission units were installed prior to October 19, 1979 and are located at the “Whirlpool Corporation - Marion Division. Therefore, pursuant to OAC rule 3745-21-09(K)(4), the provisions of this rule are not applicable to these emission units as long as a “modification” to these sources does not occur.

B003	2.8 lbs NOx/hr	N	31-05(A)(3)	N	Y	Y	N	N	Y	N	Y	N	N	N	OR- Combust only natural gas, LPG or #2 fuel oil and maximum sulfur content of #2 fuel oil. M and R includes type of fuel, fuel usage, #2 fuel oil sulfur content, #2 fuel oil heat content and the calculated SO_2 emission rate (lbs/mmBtu) of #2 fuel oil not to exceed 1.6 lbs/mmBtu. A CEM is not economically justified. CAM is not currently applicable. ET-Calculations based on the appropriate emission factor and the maximum hourly fuel consumption are sufficient to show compliance, therefore, no testing is required.
B009, B010, B011	1.5 lbs NOx/hr	N	31-05(A)(3)	N	Y	Y	N	N	Y	N	Y	N	N	N	OR- Combust only natural gas or LPG. M and R includes type of fuel and fuel usage. A CEM is not economically justified. CAM is not currently applicable. ET-Calculations based on the appropriate emission factor and the maximum hourly fuel consumption are sufficient to show compliance, therefore, no testing is required.
B009, B010, B011	0.8 lb OC/hr	N	31-05(A)(3)	N	Y	Y	N	N	Y	N	Y	N	N	N	OR- Combust only natural gas or LPG. M and R includes type of fuel and fuel usage. A CEM is not economically justified. CAM is not currently applicable. ET-Calculations based on the appropriate emission factor and the maximum hourly fuel consumption are sufficient to show compliance, therefore, no testing is required.
K008	6.5 lbs VOC/hr	N	31-05(A)(3)	N	N	Y	N	N	Y	N	Y	N	Y	N	
K008	2.42 tons VOC/month	N	31-05(A)(3)	N	N	Y	N	N	Y	N	Y	N	Y	N	
N002, N003	0.1 lb PE/hr	N	31-05	N	N	Y	N	N	Y	N	Y	N	N	N	ET-If required, compliance shall be determined in accordance with Methods 1 - 5 of 40 CFR, Part 60, Appendix A.

N008, N009	1.50 lbs PE/hr	N	31-05(A)(3)	N	Y	Y	N	N	Y	N	Y	N	N	N	OR-Use of control device (afterburner), operated and maintained in accordance with manufacturer's specifications and operational practices in accordance with manufacturer's recommendations. M and R include daily visible emission checks, records of temperature in secondary combustion chamber and operation/maintenance log. A CEM is not economically justified. CAM is not currently applicable. ET-Calculations based on the maximum charging capacity and the requirement of 0.1 lb PE/100 lbs material charged are sufficient to show compliance, therefore, no testing is required.
N008, N009	6.60 tons PE/yr	N	31-05(A)(3)	N	Y	Y	N	N	Y	N	Y	N	N	N	OR-Use of control device (afterburner), operated and maintained in accordance with manufacturer's specifications and operational practices in accordance with manufacturer's recommendations. M and R include daily visible emission checks, records of temperature in secondary combustion chamber and operation/maintenance log. A CEM is not economically justified. CAM is not currently applicable. ET-Calculations based on maximum hourly potential to emit and actual annual hours of operation are sufficient to show compliance.
N008, N009, N010, N011	Visible particulate emissions shall not excced 5% opacity, except for 6 minutes in any continuous period during which opacity shall not exceed 10%	N	31-05(A)(3)	N	Y	Y	N	N	Y	N	Y	N	N	N	OR-Use of control device (afterburner), operated and maintained in accordance with manufacturer's specifications and operational practices in accordance with manufacturer's recommendations. M and R include daily visible emission checks, records of temperature in secondary combustion chamber and operation/maintenance log. A CEM is not economically justified. CAM is not currently applicable. ET-The M, R & Rp requirements are sufficient to demonstrate compliance without requiring formal Method 9 readings being conducted.

N010, N011	0.05 lb PE/100 lbs materials charged	N	31-05(A)(3)	N	Y	Y	N	N	Y	N	Y	N	N	N	OR-Use of control device (afterburner), operated and maintained in accordance with manufacturer's specifications and operational practices in accordance with manufacturer's recommendations. M and R include daily visible emission checks, records of temperature in secondary combustion chamber and operation/maintenance log. A CEM is not economically justified. CAM is not currently applicable. ET-The company has supplied testing data from a similar unit and current M, R and Rp requirements are considered sufficient to ensure ongoing compliance.
N010, N011	0.13 lb PE/hr	N	31-05(A)(3)	N	Y	Y	N	N	Y	N	Y	N	N	N	OR-Use of control device (afterburner), operated and maintained in accordance with manufacturer's specifications and operational practices in accordance with manufacturer's recommendations. M and R include daily visible emission checks, records of temperature in secondary combustion chamber and operation/maintenance log. A CEM is not economically justified. CAM is not currently applicable. ET-Calculations based on the maximum charging capacity and the requirement of 0.05 lb PE/100 lbs material charged are sufficient to show compliance, therefore, no testing is required.
N010, N011	0.57 tons PE/yr	N	31-05(A)(3)	N	Y	Y	N	N	Y	N	Y	N	N	N	OR-Use of control device (afterburner), operated and maintained in accordance with manufacturer's specifications and operational practices in accordance with manufacturer's recommendations. M and R include daily visible emission checks, records of temperature in secondary combustion chamber and operation/maintenance log. A CEM is not economically justified. CAM is not currently applicable. ET-Calculations based on maximum hourly potential to emit and actual annual hours of operation are sufficient to show compliance.

K008	0.90 kg VOC/liter of applied coating solids based on a volume-weighted average of the total mass of VOC's emitted to the atmosphere per volume of applied coating solids	N	Y	N	N	Y	N	N	Y	N	Y	N	Y	N	Other-40 CFR, Part 60, Subpart SS
B002, B003, B005, B009, B010, B011	See Rule	N	Y	N	N	Y	N	N	Y	N	Y	N	Y	N	Other-40 CFR, Part 63, Subpart DDDDD OR, M, R, Rp, ET - As required pursuant to 40 CFR Part 63, Subpart DDDDD (attached as Appendix C to the permit). The permittee shall also comply with all applicable requirements of 40 CFR Part 63, Subpart A (General Provisions) as identified in Table 10 of 40 CFR Part 63, Subpart DDDDD (attached as Appendix A to the permit).
K001, K004, K006, K008	See Rule	N	Y	N	N	Y	N	N	Y	N	Y	N	Y	N	Other-40 CFR, Part 63, Subpart NNNN OR, M, R, Rp, ET - As required pursuant to 40 CFR Part 63, Subpart NNNN (attached as Appendix C to the permit). The permittee shall also comply with all applicable requirements of 40 CFR Part 63, Subpart A (General Provisions) as identified in Table 2 of 40 CFR Part 63, Subpart NNNN (attached as Appendix A to the permit).

EU = emissions unit ID
ND = negative declaration (i.e., term that indicates that a particular rule(s) is (are) not applicable to a specific emissions unit)
OR = operational restriction
M = monitoring requirements
St = streamlining term used to replace a PTI monitoring, record keeping, or reporting requirement with an equivalent or more stringent requirement
ENF = did noncompliance issues drive the monitoring requirements?
R = record keeping requirements
Rp = reporting requirements
ET = emission testing requirements (not including compliance method terms)
Misc = miscellaneous requirements

C Instructions for Part III:

C All non-insignificant EUs must be included in this table. For each EU, or group of similar EUs, each emission limitation and control requirement specified in section A.I.1 and A.I.2 of the permit must be identified and the remainder of the table completed.

C If the SIP (not including OAC rule 3745-31-05) is the basis for the term and condition, identify the specific rule. If the SIP is not the basis for the term and condition, place an "N" in the column under "SIP." If the basis for the term and condition is something other than the SIP, including OAC rule 3745-31-05, NSPS or MACT, a "Y" should be noted in the "Other" column, and if not, an "N" should be noted. If the basis for the term and condition is "Other," an explanation of the basis must be provided in the "Comments" section. If OAC rule 3745-31-05 is cited in the "Other" column, please indicate in the "Comments" section whether or not all of the requirements have been transferred from the permit to install.

- To complete the remainder of the table after "Basis," except for the "Comments" section, simply specify a "Y" for yes or an "N" for no. For the "M," "R," "Rp," and "ET" columns, if "N" is specified, there should be a brief explanation in the "Comments" section as to why there are no requirements. If a brief explanation is provided in the "Comments" section, please do not simply indicate that monitoring or testing requirements are not necessary. An explanation of why a requirement is not necessary should be specified.

  When periodic monitoring requirements are established to satisfy the provisions of OAC rule 3745-77-07(A)(3)(a)(ii), the basis for the requirements must be explained. Whenever Engineering Guides have been used to establish the periodic monitoring requirements, the applicable Engineering Guide may be referenced in the "Comments" section. An example that should be clarified would be the situation where it has been determined that control equipment parametric monitoring will be used to evaluate ongoing compliance in lieu of performing frequent emission tests. In this situation, Engineering Guide #65 would be referenced along with the fact that the parametric monitoring range (or minimum value) corresponded to the range (or minimum value) documented during the most recent emission tests that demonstrated that the emissions unit was in compliance. If streamlining language is included in the "Monitoring," "Record Keeping," or "Reporting" requirements sections of the permit, explain which requirements are being streamlined (mark appropriate column above) and provide a brief explanation of why the streamlined term is equal to or more stringent than the "Monitoring," "Record Keeping," or "Reporting" requirements specified in the permit to install. If Engineering Guide #16 was used as the basis for establishing an emission test frequency, a simple note referencing the Engineering Guide in the "Comments" section would be sufficient.

  Also, if a "Y" is noted under "OR," "Misc," "St," "ND," or "ENF" an explanation of the requirements must be provided in the "Comments" section. In addition to a general explanation of the "OR," "Misc," "St," "ND," and/or "ENF" the following must be provided:

  1. For an operational restriction, clarify if appropriate monitoring, record keeping, and reporting requirements have been specified for the operational restriction and indicate whether or not CAM is currently applicable.
  2. If a control plan and schedule is included in the "Miscellaneous Requirements" section of the permit, provide an explanation in the "Comments" section of the violation, basis for the violation, and the company's proposed control plan and schedule.
  3. If the "ND" column above is marked, please identify the particular rule(s) that is (are) not applicable to the specified emissions unit.
  2. If the "ENF" column above is marked, please provide a brief explanation of the noncompliance issue(s) which prompted the use of the specified monitoring requirement.

  An explanation is not required if an "N" is noted in the "OR," "Misc," "St," "ND," or "ENF" columns.

C Additional information for modifications - Several types of modifications, as defined by rule, may be processed concurrently. Please provide enough of a description for someone wishing to review the changes to the permit language to be able to identify where the change is made in the permit document. This brief description should be identified in the appropriate row in the first table of this form by replacing the "N/A" in the applicable row(s). Please also indicate if the modification is being initiated by an appeal by including the ERAC case number in the "Comments" area. Please update the term-specific text in the SOB as warranted (full insertion or replacement is acceptable; bold italic and strike out is not needed). Note all modification/reopening rows should remain "N/A" when developing the SOB during the initial permit development. Note: APA's and Off-permit changes do not need to be noted in the SOB.

Federal Register

Monday,
September 13, 2004

Part II

Environmental Protection Agency

40 CFR Part 63

National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[OAR–2002–0058; FRL–7633–9]

RIN 2060–AG69

National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The EPA is promulgating national emission standards for hazardous air pollutants (NESHAP) for industrial, commercial, and institutional boilers and process heaters. The EPA has identified industrial, commercial, and institutional boilers and process heaters as major sources of hazardous air pollutants (HAP) emissions. The final rule will implement section 112(d) of the Clean Air Act (CAA) by requiring all major sources to meet HAP emissions standards reflecting the application of the maximum achievable control technology (MACT). The final rule is expected to reduce HAP emissions by 50,600 to 58,000 tons per year (tpy).

The HAP emitted by facilities in the boiler and process heater source category include arsenic, cadmium, chromium, hydrogen chloride (HCl), hydrogen fluoride, lead, manganese, mercury, nickel, and various organic HAP. Exposure to these substances has been demonstrated to cause adverse health effects such as irritation to the lung, skin, and mucus membranes, effects on the central nervous system, kidney damage, and cancer. These adverse health effects associated with the exposure to these specific HAP are further described in this preamble. In general, these findings only have been shown with concentrations higher than those typically in the ambient air.

The final rule contains numerous compliance provisions including health-based compliance alternatives for the hydrogen chloride and total selected metals emission limits.

DATES: The final rule is effective November 12, 2004. The incorporation by reference of certain publications listed in the final rule is approved by the Director of the Federal Register as of November 12, 2004.

ADDRESSES: The official public docket is the collection of materials that is available for public viewing at the Office of Air and Radiation Docket and Information Center (Air Docket) in the EPA Docket Center, Room B–102, 1301 Constitution Avenue, NW., Washington, DC.

FOR FURTHER INFORMATION CONTACT: For information concerning applicability and rule determinations, contact your State or local representative or appropriate EPA Regional Office representative. For information concerning rule development, contact Jim Eddinger, Combustion Group, Emission Standards Division (C439–01), U.S. EPA, Research Triangle Park, North Carolina 27711, telephone number (919) 541–5426, fax number (919) 541–5450, electronic mail address *eddinger.jim@epa.gov.*

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

Category	NAICS code	SIC code	Examples of potentially regulated entities
Any industry using a boiler or process heater as defined in the final rule.	211	13	Extractors of crude petroleum and natural gas.
	321	24	Manufacturers of lumber and wood products.
	322	26	Pulp and paper mills.
	325	28	Chemical manufacturers.
	324	29	Petroleum refineries, and manufacturers of coal products.
	316, 326, 339	30	Manufacturers of rubber and miscellaneous plastic products.
	331	33	Steel works, blast furnaces.
	332	34	Electroplating, plating, polishing, anodizing, and coloring.
	336	37	Manufacturers of motor vehicle parts and accessories.
	221	49	Electric, gas, and sanitary services.
	622	80	Health services.
	611	82	Educational services.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists examples of the types of entities EPA is now 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 regulated by this action, you should examine the applicability criteria in § 63.7485 of the final rule. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Docket. The EPA has established an official public docket for this action under Docket ID No. OAR–2002–0058 and Docket ID No. A–96–47. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. All items may not be listed under both docket numbers, so interested parties should inspect both docket numbers to ensure that they have received all materials relevant to the final rule. Although a part of the official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the Office of Air and Radiation Docket and Information Center (Air Docket) in the EPA Docket Center, Room B102, 1301 Constitution Ave., NW., Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566–1744, and the telephone number for the Air and Radiation Docket is (202)

566–1742. A reasonable fee may be charged for copying docket materials.

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An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Once in the system, select ''search,'' then key in the appropriate docket identification number.

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

Judicial Review. Under section 307(b)(1) of the CAA, judicial review of the NESHAP is available by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by November 12, 2004. Only those objections to the final rule that were raised with reasonable specificity during the period for public comment may be raised during judicial review. Under section 307(b)(2) of the CAA, the requirements that are the subject of the final rule may not be challenged later in civil or criminal proceedings brought by EPA to enforce these requirements.

Background Information Document. The EPA proposed the NESHAP for industrial, commercial, and institutional boilers and process heaters on January 13, 2003 (68 FR 1660) and received 218 comment letters on the proposal. A memorandum ''National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, Summary of Public Comments and Responses,'' containing EPA's responses to each public comment is available in Docket No. OAR–2002–0058.

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

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I. Background Information

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

Section 112 of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. Industrial boilers, commercial and institutional boilers, and process heaters were listed on July 16, 1992 (57 FR 31576). Major sources of HAP are those that have the potential to emit greater than 10 tpy of any one HAP or 25 tpy of any combination of HAP.

B. What Criteria Are Used in the Development of NESHAP?

Section 112(c)(2) of the CAA requires that we establish NESHAP for control of HAP from both existing and new major sources, based upon the criteria set out in CAA section 112(d). The CAA requires the NESHAP to reflect the maximum degree of reduction in emissions of HAP that is achievable, taking into consideration the cost of achieving the emission reduction, any non-air quality health and environmental impacts, and energy requirements. This level of control is commonly referred to as the MACT.

The minimum control level allowed for NESHAP (the minimum level of stringency for MACT) is the ''MACT floor,'' as defined under section 112(d)(3) of the CAA. The MACT floor for existing sources is the emission limitation achieved by the average of the best-performing 12 percent of existing sources for categories and subcategories with 30 or more sources, or the average of the best-performing five sources for categories or subcategories with fewer than 30 sources. For new sources, the MACT floor cannot be less stringent than the emission control achieved in practice by the best-controlled similar source.

C. How Was the Final Rule Developed?

We proposed standards for industrial, commercial, and institutional boilers and process heaters on January 13, 2003 (68 FR 1660). Public comments were solicited at the time of proposal. The public comment period lasted from January 13, 2003, to March 14, 2003.

We received a total of 218 public comment letters on the proposed rule. Comments were submitted by industry trade associations, owners/operators of boilers and process heaters, State regulatory agencies and their representatives, and environmental groups. Today's final rule reflects our consideration of all of the comments and additional information received. Major public comments on the proposed rules, along with our responses to those comments, are summarized in this preamble.

D. What Is the Relationship Between the Final Rule and Other Combustion Rules?

The final rule regulates source categories covering industrial boilers, institutional and commercial boilers, and process heaters. These source categories potentially include combustion units that are already regulated by other MACT standards. Therefore, we are excluding from the final rule any combustion units that are already or will be subject to regulation under another MACT standard under 40 CFR part 63.

Combustion units that are regulated by other standards and are therefore excluded from the final rule include solid waste incineration units covered by section 129 of the CAA; boilers or process heaters required to have a permit under section 3005 of the Solid Waste Disposal Act or covered by the hazardous waste combustor NESHAP in 40 CFR part 63, subpart EEE [1]; and recovery boilers or furnaces covered by 40 CFR part 63, subpart MM.

With regards to solid waste incineration units covered by section 129 of the CAA, EPA solicited on February 17, 2004 (69 FR 7390) public comments on the definition of ''commercial and industrial solid waste incineration unit'' for the purpose of determining which combustion sources to regulate under section 129 and which to regulate under section 112 (*e.g.*, boilers and process heaters). As stated above, combustion units covered under section 129 are not subject to the final rule.

Electric utility steam generating units are not subject to the final rule. An electric utility steam generating unit is a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 megawatts electrical output to any utility power distribution system for sale is considered an electric utility steam generating unit. Non-fossil fuel-fired utility boilers and electric utility steam generating units less than 25 megawatts are covered by the final rule.

In 1986, EPA codified the NSPS for industrial boilers (40 CFR part 60, subparts Db and Dc) and revised portions of them in 1999. The NSPS regulates emissions of particulate matter (PM), sulfur dioxide, and nitrogen oxides from boilers constructed after June 19, 1984. Sources subject to the NSPS are also subject to the final rule because the final rule regulates sources of hazardous air pollutants while the NSPS does not. However, in developing the final rule for industrial, commercial, and institutional boilers and process heaters, EPA minimized the monitoring requirements, testing requirements, and recordkeeping requirements to avoid duplicating requirements.

Because of the broad applicability of the final rule due to the definition of a process heater, certain process heaters could appear to fit the applicability of another existing MACT rule. We have, therefore, included in the list of combustion units not subject to the final rule refining kettles subject to the secondary lead MACT rule (40 CFR part 63, subpart X); ethylene cracking furnaces covered by 40 CFR part 63, subpart YY; and blast furnace stoves described in the EPA document entitled ''National Emission Standards for Hazardous Air Pollutants for Integrated Iron and Steel Plants—Background Information for Proposed Standards'' (EPA–453/R–01–005).

E. What Are the Health Effects of Pollutants Emitted From Industrial, Commercial, and Institutional Boilers and Process Heaters?

The final rule protects air quality and promotes the public health by reducing emissions of some of the HAP listed in section 112(b)(1) of the CAA. As noted above, emissions data collected during development of the proposed rule show that HCl emissions represent the predominant HAP emitted by industrial boilers. Industrial boilers emit lesser amounts of hydrogen fluoride, chlorine, metals (arsenic, cadmium, chromium, mercury, manganese, nickel, and lead), and organic HAP emissions. Although numerous organic HAP may be emitted from industrial boilers and process heaters, only a few account for essentially all the mass of organic HAP emissions. These organic HAP are: Formaldehyde, benzene, and acetaldehyde.

Exposure to high levels of these HAP is associated with a variety of adverse health effects. These adverse health effects include chronic health disorders (*e.g.*, irritation of the lung, skin, and mucus membranes, effects on the central nervous system, and damage to the kidneys), and acute health disorders (*e.g.*, lung irritation and congestion, alimentary effects such as nausea and vomiting, and effects on the kidney and central nervous system). We have classified three of the HAP as human carcinogens and five as probable human carcinogens. Our screening assessment for respiratory HAP and for central nervous system (CNS) HAP, using health protective assumptions, indicates that manganese and chlorine are the only boiler-related HAP that are reasonably expected to approach health based criteria concentrations at receptor locations at or beyond facility boundaries. Emissions of all other HAP modeled on an individual basis appears to be insignificant relative to the concentration that would produce the health effects that they represent. The maximal hazard index (HI) for summation of the HAP modeled in the screening assessment for respiratory effects, including chlorine, was less than 3. The maximal HI for summation of the HAP modeled in the screening assessment for CNS effects, including manganese, was less than 3. Therefore, effects noted below for HAP at high concentrations are not expected to occur prior or after regulation as a result of emissions from these facilities, and are provided to illustrate the nature of the contaminant's effects at high dose. A screening assessment was also conducted for acute effects, and no exceedances were seen. Therefore, potential acute effects are not discussed below. However, to the extent the adverse effects do occur, the final rule will reduce emissions and subsequent exposures.

Acetaldehyde

Acetaldehyde is ubiquitous in the environment and may be formed in the body from the breakdown of ethanol (ethyl alcohol). In humans, symptoms of chronic (long-term) exposure to acetaldehyde resemble those of alcoholism. Long-term inhalation exposure studies in animals reported effects on the nasal epithelium and mucous membranes, and increased kidney weight. The EPA has classified acetaldehyde as a probable human carcinogen (Group B2) based on animal studies that have shown nasal tumors in rats and laryngeal tumors in hamsters.

[1] Please note that boilers that burn small quantities of hazardous waste under the exemptions provided by 40 CFR 266.108 are subject to today's final rule.

Arsenic

Chronic (long-term) inhalation exposure to inorganic arsenic in humans is associated with irritation of the skin and mucous membranes. Human data suggest a relationship between inhalation exposure for women working at or living near metal smelters and an increased risk of reproductive effects. Inorganic arsenic exposure in humans by the inhalation route has been shown to be strongly associated with lung cancer, while ingestion of inorganic arsenic in humans has been linked to a form of skin cancer and also to bladder, liver, and lung cancer. The EPA has classified inorganic arsenic as a Group A, human carcinogen.

Benzene

Chronic (long-term) inhalation exposure has caused various disorders in the blood, including reduced numbers of red blood cells. Increased incidence of leukemia (cancer of the tissues that form white blood cells) has been observed in humans occupationally exposed to benzene. The EPA has classified benzene as a Group A, known human carcinogen.

Beryllium

Chronic (long-term) inhalation exposure of humans to high levels of beryllium has been reported to cause chronic beryllium disease (berylliosis), in which granulomatous (noncancerous) lesions develop in the lung. Inhalation exposure to high levels of beryllium has been demonstrated to cause lung cancer in rats and monkeys. Human studies are limited, but suggest a causal relationship between beryllium exposure and an increased risk of lung cancer. We have classified beryllium as a Group B1, probable human carcinogen, when inhaled; data are inadequate to determine whether beryllium is carcinogenic when ingested.

Cadmium

Chronic (long-term) inhalation or oral exposure to cadmium leads to a build-up of cadmium in the kidneys that can cause kidney disease. Cadmium has been shown to be a developmental toxicant at high doses in animals, resulting in fetal malformations and other effects, but no conclusive evidence exists in humans. Animal studies have demonstrated an increase in lung cancer from long-term inhalation exposure to cadmium. The EPA has classified cadmium as a Group B1, probable carcinogen.

Chlorine

Chlorine is a commonly used household cleaner and disinfectant. Chlorine is an irritant to the eyes, the upper respiratory tract, and lungs. Chronic (long-term) exposure to chlorine gas in workers has resulted in respiratory effects, including eye and throat irritation and airflow obstruction. No information is available on the carcinogenic effects of chlorine in humans from inhalation exposure. A National Toxicology Program (NTP) study showed no evidence of carcinogenic activity in male rats or male and female mice, and equivocal evidence in female rats, from ingestion of chlorinated water. The EPA has not classified chlorine for potential carcinogenicity.

Chromium

Chromium may be emitted by industrial boilers in two forms, trivalent chromium (chromium III) or hexavalent chromium (chromium VI). The respiratory tract is the major target organ for chromium VI toxicity for inhalation exposures. Bronchitis, decreased pulmonary function, pneumonia, and other respiratory effects have been noted from chronic high dose exposure in occupational settings to chromium VI. Limited human studies suggest that chromium VI inhalation exposure may be associated with complications during pregnancy and childbirth, while animal studies have not reported reproductive effects from inhalation exposure to chromium VI. Human and animal studies have clearly established that inhaled chromium VI is a carcinogen, resulting in an increased risk of lung cancer. The EPA has classified chromium VI as a Group A, human carcinogen.

Chromium III is less toxic than chromium VI. The respiratory tract is also the major target organ for chromium III toxicity, similar to chromium VI. Chromium III is an essential element in humans, with a daily intake of 50 to 200 micrograms per day recommended for an adult. The body can detoxify some amount of chromium VI to chromium III. The EPA has not classified chromium III with respect to carcinogenicity.

Formaldehyde

Exposure to formaldehyde irritates the eyes, nose, and throat. Reproductive effects, such as menstrual disorders and pregnancy problems, have been reported in female workers exposed to high levels of formaldehyde. Limited human studies have reported an association between formaldehyde exposure and lung and nasopharyngeal cancer. Animal inhalation studies have reported an increased incidence of nasal squamous cell cancer. The EPA considers formaldehyde a probable human carcinogen (Group B2).

Hydrogen chloride

Hydrogen chloride, also called hydrochloric acid, is corrosive to the eyes, skin, and mucous membranes at high concentration. Chronic (long-term) occupational exposure to high levels of hydrochloric acid has been reported to cause gastritis, bronchitis, and dermatitis in workers. Prolonged exposure to lower concentrations may also cause dental discoloration and erosion. No information is available on the reproductive or developmental effects of hydrochloric acid in humans. In rats exposed to high levels of hydrochloric acid by inhalation, altered estrus cycles have been reported in females and increased fetal mortality and decreased fetal weight have been reported in offspring. The EPA has not classified hydrochloric acid for carcinogenicity.

Hydrogen fluoride

Chronic (long-term) exposure to fluoride at low levels has a beneficial effect of dental cavity prevention and may also be useful for the treatment of osteoporosis. Exposure to higher levels of fluoride may cause dental fluorosis. One study reported menstrual irregularities in women occupationally exposed to fluoride. The EPA has not classified hydrogen fluoride for carcinogenicity.

Lead

Lead can cause a variety of effects at low dose levels. Chronic (long-term) exposure to high levels of lead in humans results in effects on the blood, central nervous system (CNS), blood pressure, and kidneys. Children are particularly sensitive to the chronic effects of lead, with slowed cognitive development, reduced growth and other effects reported. Reproductive effects, such as decreased sperm count in men and spontaneous abortions in women, have been associated with lead exposure. The developing fetus is at particular risk from maternal lead exposure, with low birth weight and slowed postnatal neurobehavioral development noted. Human studies are inconclusive regarding lead exposure and cancer, while animal studies have reported an increase in kidney cancer from high-dose lead exposure by the oral route. The EPA has classified lead as a Group B2, probable human carcinogen.

Manganese

Health effects in humans have been associated with both deficiencies and excess intakes of manganese. Chronic (long-term) exposure to low levels of manganese in the diet is considered to be nutritionally essential in humans, with a recommended daily allowance of 2 to 5 milligrams per day (mg/d). Chronic exposure to high levels of manganese by inhalation in humans results primarily in CNS effects. Visual reaction time, hand steadiness, and eye-hand coordination were affected in chronically-exposed workers. Impotence and loss of libido have been noted in male workers afflicted with manganism attributed to high-dose inhalation exposures. The EPA has classified manganese in Group D, not classifiable as to carcinogenicity in humans.

Mercury

Mercury exists in three forms: Elemental mercury, inorganic mercury compounds (primarily mercuric chloride), and organic mercury compounds (primarily methyl mercury). Each form exhibits different health effects. Various major sources may release elemental or inorganic mercury; environmental methyl mercury is typically formed by biological processes after mercury has precipitated from the air.

Chronic (long-term) exposure to elemental mercury in humans also affects the CNS, with effects such as increased excitability, irritability, excessive shyness, and tremors. The EPA has not classified elemental mercury with respect to cancer.

The major effect from chronic exposure to inorganic mercury is kidney effects. Reproductive and developmental animal studies have reported effects such as alterations in testicular tissue, increased embryo resorption rates, and abnormalities of development. Mercuric chloride (an inorganic mercury compound) exposure has been shown to result in tumors in experimental animals. The EPA has classified mercuric chloride as a Group C, possible human carcinogen.

Nickel

Nickel is an essential element in some animal species, and it has been suggested it may be essential for human nutrition. Nickel dermatitis, consisting of itching of the fingers, hand and forearms, is the most common effect in humans from chronic (long-term) skin contact with nickel. Respiratory effects have also been reported in humans from inhalation exposure to nickel. No information is available regarding the reproductive or developmental effects of nickel in humans, but animal studies have reported such effects, although a consistent dose-response relationship has not been seen. Nickel forms released from industrial boilers include soluble nickel compounds, nickel subsulfide, and nickel carbonyl. Human and animal studies have reported an increased risk of lung and nasal cancers from exposure to nickel refinery dusts and nickel subsulfide. Animal studies of soluble nickel compounds (*i.e.*, nickel carbonyl) have reported lung tumors. The EPA has classified nickel refinery subsulfide as Group A, human carcinogens and nickel carbonyl as a Group B2, probable human carcinogen.

Selenium

Selenium is a naturally occurring substance that is toxic at high concentrations but is also a nutritionally essential element. Studies of humans chronically (long-term) exposed to high levels of selenium in food and water have reported discoloration of the skin, pathological deformation and loss of nails, loss of hair, excessive tooth decay and discoloration, lack of mental alertness, and listlessness. The consumption of high levels of selenium by pigs, sheep, and cattle has been shown to interfere with normal fetal development and to produce birth defects. Results of human and animal studies suggest that supplementation with some forms of selenium may result in a reduced incidence of several tumor types. One selenium compound, selenium sulfide, is carcinogenic in animals exposed orally. We have classified elemental selenium as a Group D, not classifiable as to human carcinogenicity, and selenium sulfide as a Group B2, probable human carcinogen.

II. Summary of the Final Rule

A. What Source Categories and Subcategories Are Affected by the Final Rule?

The final rule affects industrial boilers, institutional and commercial boilers, and process heaters. In the final rule, process heater means an enclosed device using controlled flame, that is not a boiler, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to heat a transfer material for use in a process unit, instead of generating steam. Process heaters are devices in which the combustion gases do not directly come into contact with process materials. Process heaters do not include units used for comfort heat or space heat, food preparation for on-site consumption, or autoclaves. Boiler means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water. Waste heat boilers are excluded from the definition of boiler. A waste heat boiler (or heat recovery steam generator) means a device, without controlled flame combustion, that recovers normally unused energy and converts it to usable heat. Waste heat boilers incorporating duct or supplemental burners that are designed to supply 50 percent or more of the total rated heat input capacity of the waste heat boiler are considered boilers and not waste heat boilers. Emissions from a combustion unit with a waste heat boiler are regulated by the applicable standards for the particular type of combustion unit. For example, emissions from a commercial or industrial solid waste incineration unit, or other incineration unit with a waste heat boiler are regulated by standards established under section 129 of the CAA.

Hot water heaters also are not regulated under the final rule. A hot water heater is a closed vessel, with a capacity of no more than 120 U.S. gallons, in which water is heated by combustion of gaseous or liquid fuel and is withdrawn for use external to the vessel at pressures not exceeding 160 pounds per square inch gauge and water temperatures not exceeding 210 degree Fahrenheit (99 degrees Celsius).

Temporary boilers also are not regulated under the final rule. A temporary boiler is any gaseous or liquid fuel-fired boiler that is designed, and is capable of, being carried or moved from one location to another, and remains at any one location for less than 180 consecutive days. Additionally, any new temporary boiler that replaces an existing temporary boiler and is intended to perform the same or similar function will be included in the determination of the consecutive 180-day time period.

Boilers or process heaters that are used specifically for research and development are not regulated under the final rule. However, units that only provide steam to a process at a research and development facility are still subject to the final rule.

B. What Is the Affected Source?

In the final rule, the affected source is defined as follows: (1) The collection of all existing industrial, commercial, or institutional boilers and process heaters within a subcategory located at a major source; or (2) each new or reconstructed industrial, commercial or institutional

boiler and process heater located at a major source.

The affected source does not include combustion units that are subject to another standard under 40 CFR part 63, or covered by other standards listed in this preamble.

C. What Pollutants Are Emitted and Controlled?

Boilers and process heaters can emit a wide variety of HAP, depending on the material burned. Because of the large number of HAP potentially present in emissions and the disparity in the quantity and quality of the emissions information available, we use several surrogates to control multiple HAP in the final rule. This will reduce the burden of implementation and compliance on both regulators and the regulated community.

We grouped the HAP into four common categories: mercury, non-mercury metallic HAP, inorganic HAP, and organic HAP. In general, the pollutants within each group have similar characteristics and can be controlled with the same techniques.

Next, we identified compounds that could be used as surrogates for all the compounds in each pollutant category. For the non-mercury metallic HAP, we chose to use PM as a surrogate. Most, if not all, non-mercury metallic HAP emitted from combustion sources will appear on the flue gas fly-ash. Therefore, the same control techniques that would be used to control the fly-ash PM will control non-mercury metallic HAP. Particulate matter was also chosen instead of specific metallic HAP because all fuels do not emit the same type and amount of metallic HAP but most generally emit PM. The use of PM as a surrogate will also eliminate the cost of performance testing to comply with numerous standards for individual metals.

However, we are sensitive to the fact that some sources burn fuels containing very little metals, but would have sufficient PM emissions to require control under the PM provisions of the proposed rule. In such cases, PM would not be an appropriate surrogate for metallic HAP. Therefore, in the final rule, an alternative metals emission limit is included. A source may choose to comply with the alternative metals emissions limit instead of the PM limit to meet the final rule.

For inorganic HAP, we chose to use HCl as a surrogate. The emissions test information available indicate that the primary inorganic HAP emitted from boilers and process heaters are acid gases, with HCl present in the largest amounts. Other inorganic compounds emitted are found in much smaller quantities. Also, control technologies that would reduce HCl would also control other inorganic compounds that are acid gases. Thus, the best controls for HCl would also be the best controls for other inorganic HAP that are acid gases. Therefore, HCl is a good surrogate for inorganic HAP because controlling HCl will result in a corresponding control of other inorganic HAP emissions.

For organic HAP, we chose to use carbon monoxide (CO) as a surrogate to represent the variety of organic compounds, including dioxins, emitted from the various fuels burned in boilers and process heaters. Because CO is a good indicator of incomplete combustion, there is a direct correlation between CO emissions and the formation of organic HAP emissions. Monitoring equipment for CO is readily available, which is not the case for organic HAP. Also, it is significantly easier and less expensive to measure and monitor CO emissions than to measure and monitor emissions of each individual organic HAP. Therefore, using CO as a surrogate for organic HAP is a reasonable approach because minimizing CO emissions will result in minimizing organic HAP emissions.

D. Does the Final Rule Apply to Me?

The final rule applies to you if you own or operate a boiler or process heater located at a major source meeting the requirements in the final rule.

E. What Are the Emission Limitations and Work Practice Standards?

You must meet the emission limits and work practice standards for the subcategories in Table 1 of this preamble for each of the pollutants listed. Emission limits and work practice standards were developed for new and existing sources; and for large, small, and limited use solid, liquid, and gas fuel-fired units. Large units are those watertube boilers and process heaters with heat input capacities greater than 10 million British thermal units per hour (MMBtu/hr). Small units are any firetube boilers or any boiler and process heater with heat input capacities less than or equal to 10 MMBtu/hr. Limited use units are those large units with capacity utilizations less than or equal to 10 percent as required in a federally enforceable permit.

If your new or existing boiler or process heater is permitted to burn a solid fuel (either as a primary fuel or a backup fuel), or any combination of solid fuel with liquid or gaseous fuel, the unit is in one of the solid subcategories. If your new or existing boiler or process heater burns a liquid fuel, or a liquid fuel in combination with a gaseous fuel, the unit is in one of the liquid subcategories, except if the unit burns liquid only during periods of gas curtailment. If your new or existing boiler or process heater burns a gaseous fuel not combined with any liquid or solid fuels, or burns liquid fuel only during periods of gas curtailment or gas supply emergencies, the unit is in the gaseous subcategory.

TABLE 1—EMISSION LIMITS AND WORK PRACTICE STANDARDS FOR BOILERS AND PROCESS HEATERS

[(Pounds per million British thermal units (lb/MMBtu)]

Source	Subcategory	Particulate Matter (PM)	or	Total Selected Metals	Hydrogen Chloride (HCl)	Mercury (Hg)	Carbon Monoxide (CO) (ppm)
New or reconstructed Boiler or Process Heater.	Solid Fuel, Large Unit.	0.025	or	0.0003	0.02	0.000003	400 (@7% oxygen).
	Solid Fuel, Small Unit.	0.025	or	0.0003	0.02	0.000003	
	Solid Fuel, Limited Use.	0.025	or	0.0003	0.02	0.000003	400 (@7% oxygen).
	Liquid Fuel, Large Unit.	0.03	.....	.....	0.0005	.....	400 (@3% oxygen).

TABLE 1—EMISSION LIMITS AND WORK PRACTICE STANDARDS FOR BOILERS AND PROCESS HEATERS—Continued

[(Pounds per million British thermal units (lb/MMBtu)]

Source	Subcategory	Particulate Matter (PM)	or	Total Selected Metals	Hydrogen Chloride (HCl)	Mercury (Hg)	Carbon Monoxide (CO) (ppm)
	Liquid Fuel, Small Unit.	0.03	.....	.....	0.0009	.....	
	Liquid Fuel, Limited Use.	0.03	.....	.....	0.0009	.....	400 (@3% oxygen).
	Gaseous Fuel, Large Unit.		.....	.....	.....	.....	400 (@3% oxygen).
	Gaseous Fuel, Small Unit.		.....	.....	.....	.....	
	Gaseous Fuel Limited Use.		.....	.....	.....	.....	400 (@3% oxygen).
Existing Boiler or Process Heater.	Solid Fuel, Large Unit.	0.07	or	0.001	0.09	0.000009	
	Solid Fuel, Small Unit.		.....	.....	.....	.....	
	Solid Fuel, Limited Use.	0.21	or	0.004	.....	.....	
	Liquid Fuel, Large Unit.		.....	.....	.....	.....	
	Liquid Fuel, Small Unit.		.....	.....	.....	.....	
	Liquid Fuel, Limited Use.		.....	.....	.....	.....	
	Gaseous Fuel		.....	.....	.....	.....	

For solid fuel-fired boilers or process heaters, sources may choose one of two emission limit options: (1) Existing and new affected units may choose to limit PM emissions to the level listed in Table 1 of this preamble, or (2) existing and new affected units may choose to limit total selected metals emissions to the level listed in Table 1 of this preamble. Sources meeting the emission limits must also meet operating limits.

We have provided several compliance alternatives in the final rule. Sources may choose to demonstrate compliance based on the fuel pollutant content. Sources are also allowed to demonstrate compliance for existing large solid fuel units using emissions averaging.

F. What Are the Testing and Initial Compliance Requirements?

As the owner or operator of a new or existing boiler or process heater, you must conduct performance tests (*i.e.* stack testing) or an initial fuel analysis to demonstrate compliance with any applicable emission limits. The applicable emission limits and, therefore, the required performance tests and fuel analysis are different depending on the subcategory classification of the unit. Existing units in the small solid fuel subcategory and existing units in any of the liquid or gaseous fuel subcategories do not have applicable emission limits and, therefore, are not required to conduct stack tests or fuel analyses. Other units are required to conduct the following compliance tests or fuel analyses where applicable:

(1) Conduct initial and annual stack tests to determine compliance with the PM emission limits using EPA Method 5 or Method 17 in appendix A to part 60 of this chapter.

(2) Affected sources in the solid fuel subcategories may choose to comply with an alternative total selected metals emission limit instead of PM. Sources would conduct initial and annual stack tests to determine compliance with the total selected metals emission limit using EPA Method 29 in appendix A to part 60 of this chapter.

(3) Conduct initial and annual stack tests to determine compliance with the mercury emission limits using EPA Method 29 in appendix A to part 60 of this chapter or the ASTM D6784–02.

(4) Conduct initial and annual stack tests to determine compliance with the HCl emission limits using EPA Method 26 in appendix A to part 60 of this chapter (for boilers without wet scrubbers) or EPA Method 26A in appendix A to part 60 of this chapter (for boilers with wet scrubbers).

(5) For new boilers and process heaters in any of the limited use subcategories and new boilers and process heaters in any of the large subcategories with heat input capacities greater than 10 MMBtu/hr but less than 100 MMBtu/hr, conduct initial and annual stack tests to determine compliance with the CO work practice limit using EPA Method 10, 10A, or 10B in appendix A to part 60 of this chapter.

(6) Use EPA Method 19 in appendix A to part 60 of this chapter to convert measured concentration values to pounds per million British thermal units (MMBtu) values.

(7) For new units in any of the liquid fuel subcategories that do not burn residual oil, instead of conducting an initial and annual compliance test you may submit a signed statement in the Notification of Compliance Status report that indicates that you only burn liquid fossil fuels other than residual oil.

(8) For affected sources that choose to meet the emission limits based on fuel analysis, conduct the fuel analysis using method ASTM D5865–01ae1 or ASTM E711–87 to determine heat content; ASTM D3684–01 (for coal), SW–846–7471A (for solid samples) or SW–846–7470A (for liquid samples) to determine mercury levels; SW–846–6010B or ASTM D3683–94 (for coal) or ASTM E885–88 (for biomass) to determine total selected metals concentration; SW–846–9250 or ASTM E776–87 (for biomass) to determine chlorine concentration; and ASTM D3173 or ASTM E871 to determine moisture content.

As part of the initial compliance demonstration, you must monitor specified operating parameters during the initial performance tests that demonstrate compliance with the PM (or metals), mercury, and HCl emission limits. You must calculate the average parameter values measured during each

test run over the 3-run performance test. The minimum or maximum of the three average values (depending on the parameter measured) for each applicable parameter establishes the site-specific operating limit. The applicable operating parameters for which operating limits must be established are based on the emissions limits applicable to your unit as well as the types of add-on controls on the unit. A summary of the operating limits that must be established for the various types of controls are as follows:

(1) For boilers and process heaters without wet scrubbers that must comply with the mercury emission limit and either a PM emission limit or a total selected metals emission limit, you must meet an opacity limit of 20 percent for existing sources (based on 6-minute averages), except for one 6-minute period per hour of not more than 27 percent, or 10 percent for new sources (based on 1-hour block averages). Or, if the unit is controlled with a fabric filter, instead of meeting an opacity operating limit, you may elect to operate the fabric filter using a bag leak detection system such that corrective actions are initiated within 1 hour of a bag leak detection system alarm and you operate and maintain the fabric filter such that the alarm is not engaged for more than 5 percent of the total operating time in a 6-month reporting period.

(2) For boilers and process heaters without wet or dry scrubbers that must comply with an HCl emission limit, you must determine the average chloride content level in the input fuel(s) during the HCl performance test. This is your maximum chloride input operating limit.

(3) For boilers and process heaters with wet scrubbers that must comply with a mercury, PM (or total selected metals) and/or an HCl emission limit, you must measure pressure drop and liquid flow rate of the scrubber during the performance test and calculate the average value for each test run. The minimum test run average establishes your site-specific pressure drop and liquid flow rate operating levels. If different average parameter levels are measured during the mercury, PM (or metals) and HCl tests, the highest of the minimum test run average values establishes your site-specific operating limit. If you are complying with an HCl emission limit, you must measure pH during the performance test for HCl and determine the average for each test run and the minimum value for the performance test. This establishes your minimum pH operating limit.

(4) For boilers and process heaters with dry scrubbers that must comply with an HCl emission limit, you must measure the sorbent injection rate during the performance test for mercury and HCl and calculate the average for each test run. The minimum test run average during the performance test establishes your site-specific minimum sorbent injection rate operating limit.

(5) For boilers and process heaters with fabric filters in combination with wet scrubbers that must comply with a mercury emission limit, PM (or total selected metals) emission limit and/or an HCl emission limit, you must measure the pH, pressure drop, and liquid flowrate of the wet scrubber during the performance test and calculate the average value for each test run. The minimum test run average establishes your site-specific pH, pressure drop, and liquid flowrate operating limits for the wet scrubber. Furthermore, the fabric filter must be operated such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during any 6-month period.

(6) For boilers and process heaters with electrostatic precipitators (ESP) in combination with wet scrubbers that must comply with a mercury, PM (or total selected metals) and/or an HCl emission limit, you must measure the pH, pressure drop, and liquid flow rate of the wet scrubber during the HCl performance test, and you must measure the voltage and secondary current of the ESP collection plates or total power input during the mercury and PM (or metals) performance test. Calculate the average value of these parameters for each test run. The minimum test run averages establish your site-specific minimum pH, pressure drop, and liquid flowrate operating limit for the wet scrubber and the minimum voltage and current operating limits for the ESP.

(7) For boilers and process heaters that choose to comply with the alternative total selected metals emission limit instead of PM, you must determine the total selected metals content of the inlet fuels that were burned during the total selected metals performance test. This value is your maximum fuel inlet metals content operating limit.

(8) For boilers and process heaters that burn a mixture of multiple fuels, you must determine the mercury content of the inlet fuels that were burned during the mercury performance test. This value is your maximum fuel inlet mercury operating limit. Units burning only a single fuel type (not including start-up fuels) do not need to determine, by fuel analysis, the fuel inlet operating limit when conducting performance tests.

(9) For new boilers and process heaters in any of the large subcategories and with heat input capacities greater or equal to 100 MMBtu/hr, you must monitor CO to demonstrate that average CO emissions, on a 30-day rolling average, are at or below an exhaust concentration of 400 parts per million (ppm) by volume on a dry basis corrected to 3 percent oxygen for units in the liquid subcategories and corrected to 7 percent for units in the solid subcategories. For new boilers and process heaters in any of the limited use subcategories or with heat input capacities less than 100 MMBtu/hr, you must conduct initial test of CO emissions to demonstrate compliance with the CO work practice limit.

The final rule also provides you another compliance alternative. You may demonstrate compliance by emissions averaging for existing large solid fuel boilers in States that choose to allow emissions averaging in their operating permit program.

G. What Are the Continuous Compliance Requirements?

To demonstrate continuous compliance with the emission limitations, you must monitor and comply with the applicable site-specific operating limits established during the performance tests or fuel analysis. Upon detecting an excursion or exceedance, you must restore operation of the unit to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance. Such actions may include initial inspections and evaluation, recording that operations returned to normal without operator action, or any necessary follow-up actions to return operation to below the work practice standard.

(1) For boilers and process heaters without wet scrubbers that must comply with a mercury emission limit and either a PM emission limit or a total selected metals emission limit, you must continuously monitor opacity and maintain the opacity at or below the maximum opacity operating limit for new and existing sources. Or, if the unit is controlled with a fabric filter, instead of continuous monitoring opacity, the fabric filter may be continuously operated such that the bag leak detection system alarm does not sound

more than 5 percent of the operating time during any 6-month period.

(2) For boilers and process heaters without wet or dry scrubbers that must comply with an HCl emission limit, you must maintain monthly records of fuel use that demonstrate that you have burned no new fuel types or new mixtures such that you have maintained the fuel HCl content level at or below your site-specific maximum HCl input operating limit. If you plan to burn a new fuel type or a new mixture than what was burned during the initial performance test, then you must re-calculate the maximum HCl input anticipated from the new fuels based on supplier data or your own fuel analysis. If the results of re-calculating the HCl input exceeds the average HCl content level established during the initial test, then you must conduct a new performance test to demonstrate continuous compliance with the HCl emission limit.

(3) For boilers and process heaters with wet scrubbers that must comply with a mercury, PM (or total selected metals) and/or an HCl emission limit, you must monitor pressure drop and liquid flow rate of the scrubber and maintain the 3-hour block averages at or above the operating limits established during the performance test. You must monitor the pH of the scrubber and maintain the 3-hour block average at or above the operating limit established during the performance test to demonstrate continuous compliance with the HCl emission limits.

(4) For boilers and process heaters with dry scrubbers that must comply with a PM (or total selected metals) or mercury emission limit, and/or an HCl emission limit, you must continuously monitor the sorbent injection rate and maintain it at or above the operating limits established during the HCl performance test.

(5) For boilers and process heaters with fabric filters in combination with wet scrubbers, you must monitor the pH, pressure drop, and liquid flow rate of the wet scrubber and maintain the levels at or above the operating limits established during the HCl performance test. You must also maintain the operation of the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during any 6-month period.

(6) For boilers and process heaters with ESP in combination with wet scrubbers that must comply with a mercury, PM and/or an HCl emission limit, you must monitor the pH, pressure drop, and liquid flow rate of the wet scrubber and maintain the 3-hour block averages at or above the operating limits established during the HCl performance test. Also, you must monitor the voltage and secondary current of the ESP collection plates or total power input and maintain the 3-hour block averages at or above the operating limits established during the mercury or PM (or metals) performance test.

(7) For boilers and process heaters that choose to comply with the alternative total selected metals limit instead of PM emission limit, you must maintain monthly fuel records that demonstrate that you burned no new fuel type or new mixtures such that the total selected metals content of the inlet fuel was maintained at or below your maximum fuel inlet metals content operating limit set during the metals performance test. If you plan to burn a new fuel type or new mixture, then you must re-calculate the maximum metals input anticipated from the new fuels based on supplier data or own fuel analysis. If the results of re-calculating the metals input exceeds the average metals content level established during the initial test, then you must conduct a new performance test to demonstrate continuous compliance with the alternate selected metals emission limit.

(8) For boilers and process heaters that must comply with the mercury emission limit, you must maintain monthly fuel records that demonstrate that you burned no new fuel type or new mixture such that the total selected mercury content of the inlet fuel was maintained at or below your maximum fuel inlet metals content operating limit set during the mercury performance test. If you plan to burn a new fuel type or new mixture than what was burned during the initial performance test, then you must re-calculate the maximum mercury input anticipated from the new fuels based on supplier data or own fuel analysis. If the results of re-calculating the mercury input exceeds the average mercury content level established during the initial test, then you must conduct a new performance test to demonstrate continuous compliance with the mercury emission limit.

(9) For boilers and process heaters that choose to comply with any emission limit based on fuel analysis, you must maintain monthly fuel records to demonstrate that the content of fuel is maintained below the appropriate applicable emission limit.

(10) For new boilers and process heaters in any of the large subcategories with heat input capacities greater or equal to 100 MMBtu/hr, you must continuously monitor CO and maintain the 30-day rolling average CO emissions at or below 400 ppm by volume on a dry basis (corrected to 3 percent oxygen for units in the liquid or gaseous subcategories, and 7 percent for units in the solid fuel subcategories) to demonstrate compliance with the work practice standards at all times except during startup, shutdown, and malfunction and when the unit is operating less than 50 percent of the rated capacity.

If a control device other than the ones specified in this section is used to comply with the final rule, you must establish site-specific operating limits and establish appropriate continuous monitoring requirements, as approved by the EPA Administrator.

If you choose to comply using emissions averaging, you must demonstrate on a monthly basis that mercury, metals, PM, and HCl emission limits can be met over a 12-month period.

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

If your boiler or process heater is in the existing large gaseous fuel subcategory, or existing limited use gaseous fuel subcategory, or existing large liquid fuel subcategory, or existing limited use liquid fuel subcategory, or a new small liquid fuel unit that only burn gaseous fuels or distillate oil, you only have to submit the initial notification report. If your boiler or process heater is in the existing small gaseous, liquid, or solid fuel subcategories or new small gaseous fuel subcategory, you are not required to keep any records or submit any reports.

If your boiler or process heater is in any other subcategory, then you must keep the following records:

(1) All reports and notifications submitted to comply with the final rule.

(2) Continuous monitoring data as required in the final rule.

(3) Each instance in which you did not meet each emission limit work practice and operating limit, including periods of startup, shutdown, and malfunction (*i.e.*, deviations from the final rule).

(4) Monthly hours of operation by each source that is in a limited use subcategory.

(5) Monthly fuel use by each boilers and process heaters subject to an emission limit including a description of the type(s) of fuel(s) burned, amount of each fuel type burned, and units of measure.

(6) Calculations and supporting information of chloride fuel input, as required in the final rule.

(7) Calculations and supporting information of total selected metals and mercury fuel input, as required in the final rule, if applicable.

(8) A copy of the results of all performance tests, fuel analysis, opacity observations, performance evaluations, or other compliance demonstrations conducted to demonstrate initial or continuous compliance with the final rule.

(9) A copy of any federally enforceable permit that limits the annual capacity factor of the source to less than or equal to 10 percent.

(10) A copy of your site-specific startup, shutdown, and malfunction plan.

(11) A copy of your site-specific monitoring plan developed for the final rule, if applicable.

(12) A copy of your site-specific fuel analysis plan developed for the final rule, if applicable.

(13) A copy of the emissions averaging plan, if applicable.

You must submit the following reports and notifications:

(1) Notifications required by the General Provisions.

(2) Initial Notification no later than 120 calendar days after you become subject to the final rule.

(3) Notification of Intent to conduct performance tests and/or compliance demonstration at least 30 calendar days before the performance test and/or compliance demonstration is scheduled.

(4) Notification of Compliance Status 60 calendar days following completion of the performance test and/or compliance demonstration.

(5) Notification of intent to demonstrate compliance by emissions averaging.

(6) Notification of intent to demonstrate eligibility for either health-based compliance alternative.

(7) Compliance reports semi-annually.

I. What Are the Health-Based Compliance Alternatives, and How Do I Demonstrate Eligibility?

HCl Compliance Alternative

As an alternative to the requirement for each large solid fuel-fired boiler to demonstrate compliance with the HCl emission limit in the final rule, you may demonstrate compliance with a health-based HCl equivalent allowable emission limit.

The procedures for demonstrating eligibility for the HCl compliance alternative (as outlined in appendix A of the final rule) are:

(1) You must include in your demonstration every emission point covered under the final rule.

(2) You must conduct HCl and chlorine emissions tests for every emission point covered under the final rule.

(3) You must determine the total maximum hourly mass HCl-equivalent emission rate for your affected source by summing the maximum hourly emission rates of HCl and chlorine for each of the affected units at your facility covered under the final rule.

(4) Use the look-up table in the appendix A of the final rule to determine if your facility is in compliance with the health-based HCl-equivalent emission limit.

(5) Select the maximum allowable HCl-equivalent emission rate from the look-up table in appendix A of the final rule for your affected source using the average stack height of your emission units covered under the final rule as your stack height and the minimum distance between any affected emission point and the property boundary as your property boundary.

(6) Your facility is in compliance if your maximum HCl-equivalent emission rate does not exceed the value specified in the look-up table in appendix A of the final rule.

(7) As an alternative to using the look-up table, you may conduct a site-specific compliance demonstration (as outlined in appendix A of the final rule) which demonstrates that the subpart DDDDD units at your facility are not expected to cause an individual chronic inhalation exposure from HCl and chlorine which can exceed a Hazard Index (HI) value of 1.0.

Total Selected Metals Compliance Alternative

In lieu of complying with the emission standard for total selected metals (TSM) in the final rule based on the sum of emissions for the eight selected metals, you may demonstrate eligibility for complying with the TSM standard based on excluding manganese emissions from the summation of TSM emissions for the affected source unit(s).

The procedures for demonstrating eligibility for the TSM compliance alternative (as outlined in appendix A of the final rule) are:

(1) You must include in your demonstration every emission point covered under the final rule that emits manganese.

(2) You must conduct manganese emissions tests for every emission point covered under the final rule that emits manganese.

(3) You must determine the total maximum hourly manganese emission rate from your affected source by summing the maximum hourly manganese emission rates for each of the affected units at your facility covered under the final rule.

(4) Use the look-up table in appendix A of the final rule to determine if your facility is eligible for complying with the alternative TSM limit based on the sum of emissions for seven metals (excluding manganese) for the affected source units.

(5) Select the maximum allowable manganese emission rate from the look-up table in appendix A of the final rule for your affected source using the average stack height of your emission units covered under the final rule as your stack height and the minimum distance between any of those emission points and the property boundary as your property boundary.

(6) Your facility is eligible if your maximum manganese emission rate does not exceed the value specified in the look-up table in appendix A of the final rule.

(7) As an alternative to using look-up table to determine if your facility is eligible for the TSM compliance alternative, you may conduct a site-specific compliance demonstration (as outlined in appendix A of the final rule) which demonstrates that the subpart DDDDD units at your facility are not expected to cause an individual chronic inhalation exposure from manganese which can exceed a Hazard Quotient (HQ) value of 1.0.

If you elect to demonstrate eligibility for either of the health-based compliance alternatives, you must submit certified documentation supporting compliance with the procedures at least 1 year before the compliance date.

You must submit supporting documentation including documentation of all maximum capacities, existing control devices used to reduce emissions, stack parameters, and property boundary distances to each affected source of HCl-equivalent and/or manganese emissions.

You must keep records of the information used in developing the eligibility demonstration for your affected source.

To be eligible for either health-based compliance alternative, the parameters that defined your affected source as eligible for the health-based compliance alternatives (including, but not limited to, fuel type, type of control devices, process parameters reflecting the emission rates used for your eligibility demonstration) must be incorporated as Federally enforceable limits into your title V permit. If you do not meet these criteria, then your affected source is subject to the applicable emission

limits, operating limits, and work practice standards in the final rule.

If you intend to change key parameters (including distance of stack to the property boundary) that may result in lower allowable health-based emission limits, you must recalculate the limits under the provisions of this section, and submit documentation supporting the revised limits prior to initiating the change to the key parameter.

If you intend to install a new solid fuel-fired boiler or process heater or change any existing emissions controls that may result in increasing HCl-equivalent and/or manganese emissions, you must recalculate the total maximum hourly HCl-equivalent and/or manganese emission rate from your affected source, and submit certified documentation supporting continued eligibility under the revised information prior to initiating the new installation or change to the emissions controls.

III. What Are the Significant Changes Since Proposal?

A. Definition of Affected Source

The definition of affected source in § 63.7490 has been revised to be: (1) The collection of all existing industrial, commercial, or institutional boilers or process heaters within a subcategory located at a major source; and/or (2) each new or reconstructed industrial, commercial, or institutional boiler or process heater located at a major source.

B. Sources Not Covered by the NESHAP

The applicability section of the final rule (§ 63.7490(c)) has been written to clarify that the following are not subject to the final rule: Blast furnace stoves, any boiler or process heater specifically listed as an affected source in another MACT standard, temporary boilers, and blast furnace gas fuel-fired boilers and process heaters.

C. Emission Limits

The emission limit for mercury in the existing large solid fuel subcategories has been written as 0.000009 lb/MMBtu (from 0.000007 lb/MMBtu at proposal).

D. Definitions Added or Revised

The EPA has written the definitions of large, limited use, and small gaseous subcategories to include gaseous fuel-fired boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies.

The final rule also includes a definition of fuel type which is used in the fuel analysis compliance options. Fuel type means each category of fuels that share a common name of classification. Examples include, but are not limited to: bituminous coal, subbituminous coal, lignite, anthracite, biomass, construction/demolition material, salt water laden wood, creosote treated wood, tires, and residual oil. Individual fuel types received from different suppliers are not considered new fuel types except for construction/demolition material.

Construction/demolition material means waste building material that result from the construction or demolition operations on houses and commercial and industrial buildings.

Unadulterated wood, component of biomass, means wood or wood products that have not been painted, pigment-stained, or pressure treated with compounds such as chromate copper arsenate, pentachlorophenol, and creosote. Plywood, particle board, oriented strand board, and other types of wood products bound by glues and resins are included in this definition.

We have included a definition for temporary boiler to mean any gaseous or liquid fuel-fired boiler that is designed, and is capable of, being carried or moved from one location to another. A temporary boiler that remains at a location for more than 180 consecutive days is no longer considered to be a temporary boiler. Any temporary boiler that replaces a temporary boiler at a location and is intended to perform the same or similar function will be included in calculating the consecutive time period.

The final rule also contains a definition written for waste heat boiler that identifies waste heat boilers incorporating duct or supplemental burners that are designed to supply 50 percent or more of the total rated heat input capacity of the waste heat boiler as not being waste heat boilers, but are considered boilers and subject to the final rule.

E. Requirements for Sources in Subcategories Without Emission Limits or Work Practice Requirements

In the final rule, we have clarified that sources in the existing large and limited use gaseous fuel subcategories, existing large and limited use liquid fuel subcategories, and new small liquid fuel subcategory that burn only distillate oil are only subject to the initial notification requirements in § 63.9(b) of subpart A of this part and are not required to submit as startup, shutdown, and malfunction (SSM) plan as part of their initial notification. We have written the final rule to state that sources in the existing small gaseous fuel, liquid fuel, and solid fuel subcategories and in the new small gaseous fuel subcategory are not subject to any requirements in the final rule or of subpart A of this part.

F. Carbon Monoxide Work Practice Emission Levels and Requirements

The final rule provides revisions to the CO work practice emission levels. For new sources in the solid fuel subcategory, the work practice standard has been written to be corrected to 7 percent oxygen rather than 3 percent. Units in the gaseous and liquid fuel subcategories still have to correct to 3 percent oxygen.

The final rule also allows sources with heat input capacities greater than 10 MMBtu/hr but less than 100 MMBtu/hr to conduct initial and annual compliance tests to demonstrate compliance with the CO limit. Sources greater than 100 MMBtu/hr must still demonstrate compliance using CO continuous emission monitors (CEMS).

The final rule also does not allow you to calculate data average using data recorded during periods where your boiler or process heater is operating at less than 50 percent of its rated capacity, monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities. You must use all data collected during all other periods in assessing compliance.

G. Fuel Analysis Option

We have clarified the fuel analysis options in the final rule. You are not required to conduct performance tests for hydrogen chloride, mercury, or total selected metals if you demonstrate compliance with the hydrogen chloride, mercury, or total selected metals limits based on the fuel pollutant content. Your operating limit is then the emission limit of the applicable pollutant. You are not required to conduct emission tests.

If you demonstrate compliance with the HCl, mercury, or TSM limit by performance tests, then your operating limits are the operating limits of the control device (if used) and the fuel pollutant content of the fuel type/mixture burned. Units burning multiple fuel types are required to determine by fuel analysis, the fuel pollutant content of the fuel/mixture burned during the performance test.

The final rule specifies the testing and initial and continuous compliance requirements to be used when complying with the fuel analysis options. Fuel analysis tests for total chloride, gross calorific value, mercury, metal analysis, sample collection, and sample preparation are included in the final rule.

We have written the requirement to remove the need for conducting additional tests if you receive fuel from a new supplier. You are required to conduct another performance test, if you demonstrated compliance through performance testing, only when you burn a new fuel type or mixture and the results of recalculating the fuel pollutant content are higher than the level established during the initial performance test.

H. Emissions Averaging

We have included a compliance alternative in the final rule to allow emissions averaging between existing large solid fuel boilers. Compliance must be demonstrated on a 12-month rolling average basis, determined at the end of every month. If you elect to comply with the emissions averaging compliance alternative, you must use equations provided in the final rule to demonstrate that particulate matter or TSM, HCl, or mercury from all applicable units do not exceed the emission limits specified in the final rule. If you use this option, you must also develop and submit an implementation plan no later than 6 months before the date that the facility intends to demonstrate compliance.

I. Opacity Limit

At proposal, we required sources meeting the PM and mercury limits to determine site-specific opacity operating limits based on levels during the initial performance test. To demonstrate continuous compliance with the opacity limit, the opacity operating limits have been established to be 20 percent (based on 6-minute averages) except for one 6-minute period per hour of not more than 27 percent for existing sources and 10 percent (based on 1-hour block averages) for new sources.

J. Operating Limit Determination

The final rule defines maximum and minimum operating parameters that must be met. For sources complying with the alternative opacity requirement of establishing opacity limits during the initial performance test, the maximum opacity operating limit is 110 percent of the highest test-run average opacity measured according to the final rule during the most recent performance test demonstrating compliance with the applicable emission limit. For sources meeting the standards using scrubbers or ESP, the minimum pressure drop, scrubber effluent pH, scrubber flow rate, sorbent flow rate, voltage or amperage means 90 percent of the lowest test run average pressure drop, scrubber effluent pH, scrubber flow rate, sorbent flow rate, voltage or amperage measured according to the most recent performance test demonstrating compliance with the applicable emission limits.

The final rule clarifies that operation above the established maximum or below the established minimum operating parameters constitute a deviation of established operating parameters.

K. Revision of Compliance Dates

In § 63.7510, we have also written the date by which you have to complete a compliance demonstration to be 180 days after the compliance date instead of at the compliance date.

IV. What Are the Responses to Significant Comments?

We received 218 public comment letters on the proposed rule. Complete summaries of all the comments and responses are found in the Response-to-Comments document (see **SUPPLEMENTARY INFORMATION** section).

A. Applicability

Comment: Many commenters requested that EPA exempt units that are not subject to emission limits or work practice requirements from monitoring, recordkeeping, and reporting requirements.

Response: Sources in subcategories that do not have any emission limitations and work practices are not required to keep records or reports other than the initial notification. This is appropriate because no reports other than the initial notification would apply to these units. The SSM plan is not necessary nor required for these units because § 63.6(e)(3) of subpart A of this part requires an affected source to develop an SSM plan for control equipment used to comply with the relevant standard. The proposed rule was not intended to require monitoring, recordkeeping, and reporting (including startup, shutdown, and malfunction plans), other than the initial notification for sources not subject to an emission limit. We have clarified this decision in the final rule. We have also determined that existing small units and new small gaseous fuel units, which are not subject to emission limits or work practices in this standard, and which are also not subject to such requirements in any other Federal regulation, should also not have to provide an initial notification. These small sources are generally gas-fired and since they have minimal emissions, they are usually considered as insignificant emission units by State permitting agencies.

Comment: Several commenters requested that EPA specifically exclude portable/transportable units from the final rule. The commenters stated that facilities periodically use these units to supply or supplement other site steam supplies when there is a mechanical problem that takes a unit out of service or during planned outages. The commenters added that because they are used on a limited basis, portable units are not fully integrated with site control systems and most portable/transportable units are owned by a rental company and may not be operated by the facility owner/operator.

Response: We agree with the commenters that temporary/portable units are used only on a limited basis and are not integrated into a facility's control system. These units are gas or oil fired units. Units in the existing gaseous or liquid subcategories are not subject to emission limits or work practice standards. Consequently, we have decided that temporary/portable units are not subject to the final rule. We have added a definition for temporary boiler to mean any gaseous or liquid fuel-fired boiler that is designed, and is capable of, being carried or moved from one location to another. A temporary boiler that remains at a location for more than 180 consecutive days is no longer considered to be a temporary boiler. Any temporary boiler that replaces a temporary boiler at a location and is intended to perform the same or similar function will be included in calculating the consecutive time period. We chose the 180-day time frame because that is the length of time a new source has after startup to conduct the initial performance test.

Comment: Several commenters requested EPA provide a lower size cut-off for the small unit subcategory. Several commenters argued that the benefits from requiring smaller units to install controls would be minimal given the overall monitoring, recordkeeping, and reporting burden. Several commenters also requested lower size cutoffs to make the final rule similar to others established by EPA (*e.g.,* NSPS Nitrogen Oxide (NO_X) SIP Call). Several commenters noted several recent court decisions in which the court has decided that a *de minimis* exemption is appropriate since the regulation of small sources would yield a gain of trivial or no value yet would impose significant regulatory burden. A wide range of lower size cutoffs were suggested. However, one commenter said that EPA should not develop *de minimis* exemptions. The commenter noted that *de minimis* exemptions do not spare EPA's resources for use on other

purposes and are not justified by reductions in industry burden or inconvenience. The commenter noted that EPA did not establish any administrative record justifying the *de minimis* exemption.

Response: We have reviewed the commenters arguments and all the data provided in the comment letters. There is no justification for developing a lower size cut-off or *de minimis* level. We would also note the designation of large and small subcategories was not based solely on size of the unit. Large and small subcategories were developed because small units less than 10 MMBtu/hr heat input typically use a combustor design that is not common in larger units. Large boilers generally use the watertube combustor design. The design of the boiler or process heater will influence the completeness of the combustion process which will influence the formation of organic HAP emissions. Additionally, the vast majority of small units use natural gas as fuel. The EPA chose to develop large and small subcategories to account for these differences and their affect on the type of emissions. The cut-off between the large and small subcategories of 10 MMBtu/hr was based on typical sizes for fire tube units, and also when considering cut-offs in State and Federal rules. Lastly, we would like to note that the final rule does not impose any requirements for existing units in any of the small subcategories.

Comment: Many commenters asked EPA to clarify which sources are not covered by the final rule.

Response: We have included an extensive list of sources that are not subject to the final rule. The final rule clarifies that boilers and process heaters that are included as part of the affected source in any other NESHAP are not subject to the NESHAP for industrial boilers and process heaters. However, we do not exclude boilers and process heaters that are used as control devices unless they are specifically considered part of any other NESHAP's definition of affected source. Incinerators, thermal oxidizers, and flares do not generally fall under the definition of a boiler or process heater and would not be subject to the final rule. The final rule excludes waste heat boilers and waste heat boilers with supplemental firing, as long as the supplemental firing does not provide more than 50 percent of the waste heat boiler's heat input. If your waste heat boiler does receive 50 percent of its total heat input from supplemental firing, it would be subject to the NESHAP for industrial boilers unless it is subject to any other NESHAP. We specifically exclude comfort heaters from the final rule. However, this exclusion does not include boilers used to make steam or heated water for comfort heat. If your boiler meets the definition of a hot water heater, then it would not be subject to the final rule. However, if the temperature, pressure, or capacity specifications of your boiler exceed the criteria specified for hot water heaters, then your boiler would be subject to the final rule. We recognize the unique properties of blast furnace gas having high CO concentrations and none to almost no organic compounds. Consequently, we agree that for these sources CO is not a surrogate for organic HAP emissions since CO is the primary component of blast furnace gas and virtually no organic HAP are generated in its combustion. As a result, we exclude from the final rule units that receive 90 percent or more of their total heat input from blast furnace gas. In addition, research and development (R&D) operations are not subject to the final rule. However, units that only provide steam to a process or for heating at a research and development facility are still subject to the final rule. This should address the commenters' concern over overlapping applicability.

Comment: Several commenters suggested that EPA revise the proposed definition of affected source to be consistent with the definition of affected source in the General Provisions. The definition in the rule as proposed is much more narrow than that in the General Provisions, even though the General Provisions states that each standard will redefine affected source based on published justification as to why the definition would result in significant administration, practical or implementation problems. The commenters argued that EPA failed to provide justification for the proposed definition of affected source, which is narrower than the definition of affected source in the General Provisions.

Response: We agree with the commenters and in the final rule have incorporated the broader definition of affected source from the revised General Provisions. The General Provisions define the affected source as ''the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory * * *'' Therefore, the definition of existing affected source in the final rule is the collection of existing industrial, commercial, or institutional boilers and process heaters within a subcategory located at a major source of HAP emissions.

B. Format

Comment: Several commenters opposed using one or more surrogates for the HAP regulated. Some commenters stated that EPA must set emission standards for each HAP emitted by this category. One commenter explained that the use of surrogates is acceptable if: (1) The surrogates reflect the actual emissions of the represented pollutants, (2) the emission limit set for the surrogate is consistent with the emission limit calculated for the represented pollutants, and (3) the surrogates have substantially the same properties as the represented pollutants and is controlled by the same mechanism. Based on these criteria, the commenter argued that EPA's selection of surrogates is inadequate. One commenter specifically contended that CO is not an adequate surrogate for dioxin because dioxin emissions are affected by the temperature of the emissions, how quickly the temperature is lowered, and the levels of chlorine in the materials that are being combusted and control devices. Other commenters supported the use of surrogates to represent the HAP list.

Response: As discussed in the proposal preamble, the use of surrogates for the HAP regulated is appropriate. Because of the large number of HAP potentially present, the disparity in the quality and quantity of the emissions information available, particularly for different fuel types, we chose to group HAP into four categories: Mercury, non-mercury metallic HAP, inorganic HAP, and organic HAP. In general, the pollutants within each group have similar characteristics and can be controlled with the same techniques. We then chose compounds that could be used as surrogates for all the compounds in each pollutant category. We have used surrogates in previous NESHAP as a technique to reduce the performance testing costs, and thus the use of surrogates is appropriate in the final rule.

For inorganic HAP, we chose to use HCl as a surrogate. The emissions test information available to us indicated that the primary inorganic HAP emitted from boilers and process heaters is HCl. Much smaller amounts of hydrogen fluoride and chlorine are emitted. Control technologies that would reduce HCl would also control other inorganic HAP. Additionally, we had limited emissions information for other inorganic HAP. By focusing on HCl, we have achieved control of the largest emitted and most widely emitted HAP,

and control of HCl would also constitute control of other inorganic HAP.

For non-mercury metallic HAP, we chose to use PM as a surrogate. Most, if not all, non-mercury metallic HAP emitted from combustion sources will appear on the flue gas fly-ash. Therefore, the same control technology that would be used to control fly-ash PM will control non-mercury metallic HAP. A review of data in the emission database for PM control devices having both inlet and outlet emissions results shows control efficiencies for each non-mercury metallic HAP similar to PM. Particulate matter was also chosen instead of a specific metallic HAP because all fuels do not emit the same type and amount of metallic HAP, but most generally emit PM that includes some amount and combination of metallic HAP. We maintain that particulate matter reflects the emissions of non-mercury metallic HAP as these compounds usually comprise a percentage of the emitted particulate matter. Since the NESHAP program is technology-based, the technologies that have been developed and implemented to control particulate matter, also control non-mercury metallic HAP. Furthermore, since non-mercury metallic HAP is a component of particulate matter, we can use particulate matter as a surrogate for the purposes of the final rule.

While we did use PM as a surrogate for non-mercury metallic HAP, we also provided an alternative total selected metals emission limit based on the sum of the emissions of the eight most common and largest emitted metallic HAP compounds from boilers and process heaters. Again, a total selected metals number was used instead of limits for each individual metallic HAP because sufficient information was not available for each metallic HAP for every fuel type. However, a total metals number could be calculated for every fuel type.

We realize that mercury emissions can exist in different forms depending on combustion conditions and concentrations of other compounds. That is why we have mercury as a separate pollutant category in the final rule and do not provide for a surrogate.

For organic HAP, we chose to use CO as a surrogate to represent the variety of organic compounds emitted from the various fuels burned. Both organic HAP and CO emissions are the result of incomplete combustion of the fuel. Because CO is a good indicator of incomplete combustion, there is a direct correlation between CO emissions and minimizing organic HAP emissions. The extent to which CO and HAP emissions are related can also depend on site-specific operating conditions for each boiler or process heater. This site-specific nature may result in various degrees of correlation between CO and organic HAP emissions, but it is proven that reductions in CO emissions result in a reduction of organic HAP emissions. The control methods for both CO and organic HAP are the same, *i.e.*, complete combustion. This result would not have been different if MACT floor analyses were conducted for specific organic HAP or for a surrogate compound such as CO. For boilers and process heaters, we have determined that CO is a reasonable indicator of incomplete combustion. Also, we did not set emission limits for each specific organic HAP because we lacked sufficient information for many of the organic HAP for all the fuels combusted. We acknowledge that there are many factors that affect the formation of dioxin, but we also recognize that dioxin can be formed in both the combustion unit and downstream in the associated PM control device. Minimizing organic HAP emissions can limit the formation of dioxin in the combustion unit. We reviewed all the good combustion practice (GCP) information available in the boiler population database and determined that no floor level of control exists, except for limiting CO emissions, such that GCP could be incorporated into the standard. One control technique, controlling inlet temperature to the PM control device, that has demonstrated controlling downstream formation of dioxins in other source categories (*e.g.,* municipal waste combustors) was analyzed for industrial boilers. In all cases, no increase in dioxins emissions were indicated across the PM control device even at high inlet temperatures. However, we requested comment on controls that would achieve reductions of organic HAP, including any additional data that might be available. The EPA did not receive any additional supporting information or data. Additionally, more stringent options beyond the floor level of control were evaluated, but were determined to be too costly and emissions reductions associated with the options could not be evaluated because no information was available that indicated a relationship between the GCP and emission reduction of organics (including dioxin).

C. Compliance Schedule

Comment: Many commenters requested that EPA provide an additional year to comply with the final rule. Commenters explained that the time lines associated with permitting, capital appropriation, project bid, and construction activities are significant and that the 3-year deadline would not provide adequate time for the estimated 3,730 existing units at affected sources to be retrofitted as necessary to meet the new MACT standards. The commenters added that sources subject to the final rule would also be competing with sources that are subject to other combustion rules for the same vendors.

Response: The EPA disagrees with the commenters that the 3-year compliance deadline is too short considering the number of sources that will be competing for the resources and materials from engineering consultants, equipment vendors, construction contractors, financial institutions, and other critical suppliers. The EPA recognizes the possibility that these same consultants, vendors, etc., may also be used to comply with the utility MACT standard. However, we know that many sources will not need to install controls. As a result, since not everyone will need more than 3 years to actually install controls, the final rule does not allow an extra year for existing sources to comply with the final rule. Section 112(i)(3)(B) of the CAA allows EPA or the permit authority, on a case-by-case basis, to grant an extension permitting an existing source up to 1 additional year to comply with standards if such additional period is necessary for the installation of controls. This provision is sufficient for those sources where the 3-year deadline would not provide adequate time to retrofit as necessary to comply with the requirements of the standard. We anticipate that a number of units will seek and be granted the 1-year extension since construction of needed control devices could be constrained by the potential impacts on delays in obtaining funding and potential labor and equipment shortages.

D. Subcategorization

Comment: Two commenters said that EPA does not have the authority to develop subcategories for the purpose of reducing compliance costs or weakening the standard. The commenters also noted that costs should not be considered in subcategorizing and establishing the MACT floor. One commenter explained that EPA has failed to present a persuasive rationale for the establishment of new or different subcategories, such as a wood-fired unit subcategory and noted that EPA cannot subcategorize based on fuel type, cost, level of emissions reductions, control technology applicability or effectiveness, achievability of emissions reductions, or health risks. The

commenter argued that EPA cannot subcategorize to reduce cost because that would change CAA section 112 standards into a cost-benefit program and that is not legally defensible. The commenter noted that the DC Circuit court recently held that, when confronted with the cost argument, costs are not relevant when determining MACT floors.

Response: If the commenters are referring to the request for comment regarding further subcategorizations than what was proposed, the EPA agrees that there is no justification for any further subcategories. The final rule maintains the subcategories presented in the proposed rule. If the commenters are referring to subcategories presented in the proposed rule, section 112(d)(1) of the CAA states ''the Administrator may distinguish among classes, types, and sizes of sources within a category or subcategory'' in establishing emission standards. Thus, we have discretion in determining appropriate subcategories based on classes, types, and sizes of sources. We used this discretion in developing subcategories for the industrial, commercial, and institutional boilers and process heaters source category. Through subcategorization, we are able to define subsets of similar emission sources within a source category if differences in emissions characteristics, processes, air pollution control device (APCD) viability, or opportunities for pollution prevention exist within the source category. We first subcategorized boilers and process heaters based on the physical state of the fuel (solid, liquid, or gaseous), which will affect the type of pollutants emitted and controls applicable, and the design and operation of the boiler, which influences the formation of organic HAP emissions. We then further subcategorized boilers and process heaters based on size. Our distinctions are based on technological differences in the equipment. For example, small units are package units typically having capacities less than 10 million Btu per hour heat input and use a combustor design which is not common in large units. A review of the information gathered on boilers also shows that a number of units operate as backup, emergency, or peaking units that operate infrequently. The boiler database indicates that these infrequently operated units typically operate 10 percent of the year or less. These limited use boilers, when called upon to operate, must respond without failure and without lengthy periods of startup. Since their use and operation are different compared to typical industrial, commercial, and institutional boilers, we decided that such limited use units should have their own subcategory.

Neither the subcategories or MACT floor analysis was conducted considering costs, either in the proposed rule or in the final rule.

Comment: Many commenters requested EPA to develop a separate subcategory for small municipal electric utilities. Reasons for creating a subcategory for small electrical utility steam generating units included: (1) EPA has authority to establish such a subcategory of sources to be regulated under CAA section 112 and is meant to address control costs and feasibility, (2) past EPA practice supports subcategorization in this instance, (3) differences between municipal utility boilers and non-utility boilers justify subcategorization, and (4) EPA cannot properly account for cost and energy concerns mandated in the MACT standard setting process without subcategorization for municipal utility boilers. The commenters added that the unique physical attributes of municipally-owned utilities, as well as their significant and direct impact on municipal tax base, support a separate subcategorization.

Response: The EPA sees no technical or legal justification for creating a separate subcategory for municipal utilities. Boilers at municipal utilities fire the same type of fuels, have the same type of combustor designs, and can use the same type of controls as other units in the large subcategory. Consequently, the subcategories that are in the final rule are the same as at proposal. We would also like to clarify that subcategories were developed based on combustor design and not on industrial sector. Also, had we gone beyond-the-floor, we would have considered cost in the final determination. Since we did not go beyond-the-floor level of control, cost did not play a role in the analysis.

Comment: Many commenters requested EPA add a subcategory for medium sized boilers and process heaters.

Response: The EPA does not see justification for creating a separate subcategory for medium sized units. The designation of large and small subcategories was not based

Response: The EPA does not see justification for creating a separate subcategory for medium sized units. The designation of large and small subcategories was not based solely on size of the unit. Large and small subcategories were developed because small units less than 10 MMBtu/hr heat input typically use a combustor design that is not common in larger units. Large boilers generally use the watertube combustor design. The design of the boiler or process heater will influence the completeness of the combustion process which will influence the formation of organic HAP emissions. The EPA developed large and small subcategories to account for these differences and their affect on the type of emissions. The proposed size break between the large and small subcategories of 10 MMBtu/hr was based on typical sizes for firetube and cast iron units and considering cut-offs in State and Federal permitting requirements and rules. The EPA does not view medium sized boilers as being different than larger boilers. Combustor designs, applicable air pollution control devices, fuels used, and operation are similar for large and medium. While actual pollution controls used and monitoring equipment may be different, the CAA does not allow EPA to subcategorize on these parameters.

Section 112(d)(1) of the CAA allows EPA to distinguish among classes, types, and size in establishing MACT standards. As indicated above, at proposal, the size break selected between large and small units of 10 MMBtu/hr was based on typical sizes for fire tube units and also considering cut-offs in State and Federal permitting requirements and emission rules. Based on comments, we have examined information in the docket regarding the population and characteristics of industrial, commercial, and institutional boilers. It is correct that boilers below 10 MMBtu/hr are generally not required to be permitted and are either firetube or cast iron boilers. Based on review of the thousands of responses received on an information collection request (ICR) conducted during the rulemaking process, it is obvious and appropriate that the distinction between small and large units needs to include size. It is apparent from the ICR responses that facilities know the size of their units but do not generally know the exact type of the units. Many responses indicated that the boiler was both firetube and watertube. Many more responses did not list the boiler type at all. Therefore, the inclusion of size in the definition of small and large subcategories is appropriate.

Based on review of the 1979 EPA document on boiler population and the ICR survey database, the appropriate size break between small and large type units is 10 MMBtu/hr. In the EPA document, 99 percent of the boilers listed as being below 10 MMbtu/hr are either firetube or cast iron. Since these trends are from a 25 year old report, we

analyzed our ICR survey database which confirmed these findings.

E. MACT Floor

Comment: Several commenters supported EPA's finding that the MACT floor level for existing gas and liquid fuel-fired units is no emissions reductions. Other commenters contended that EPA has legal authority to set the MACT floor as ''no emissions control'' for particular HAP categories. A commenter noted that EPA has a clear statutory obligation to set emission standards for each listed HAP. One commenter specifically challenged EPA's determination that ''no control'' is the MACT floor for organic pollutants. The commenter noted that the U.S. Court of Appeals for the DC Circuit had squarely held, in the National Lime case, that EPA was not allowed to make a ''no control'' determination for a pollutant emitted by a listed category of sources.

Response: First, the MACT floor methodology we use is consistent with DC Circuit's holding in the National Lime case. The DC Circuit held that by focusing only on technology EPA ignored the directive in CAA section 112(d)(2) to consider pollution-reducing measures including process changes and substitution of materials.

The EPA has ample legal authority to set the MACT floor at ''no emissions reductions.'' This is because the statute requires EPA to set standards that are duplicable by others. In the National Lime case, the court threw out EPA's determination of a no control floor because it was based only on a control technology approach. The court stated that EPA must look at what the best performers achieve, regardless of how they achieve it. Therefore, our determination that the MACT floor for certain subcategories or HAP is ''no emissions reductions'' is lawful because we determined that the best-performing sources were not achieving emissions reductions through the use of an emission control system and there were no other appropriate methods by which boilers and process heaters could reduce HAP emissions. Furthermore, setting emissions standards on the basis of actual emissions data alone where facilities have no way of controlling their HAP emissions would contravene the plain statutory language as well as Congressional intent that affected sources not be forced to shut down.

The EPA agrees with the commenter that all factors which might control HAP emissions must be considered in making a floor determination for each subcategory. However, EPA disagrees that it must express the floor as a quantitative emission level in those instances where the source on which the floor determination is based has not adopted or implemented any measure that would reduce emissions.

A detailed discussion of the MACT floor methodology is presented in the memorandum ''MACT Floor Analysis for New and Existing Sources in the Industrial, Commercial, and Institutional Boilers and Process Heaters Source Categories'' in the docket. In summary, we considered several approaches to identifying MACT floor for existing industrial, commercial, and institutional boilers and process heaters. Based on recent court decisions, in most cases the most acceptable approach for determining the MACT floor is likely to involve primarily the consideration of available emissions test data. However, after review of the available HAP emission test data, we determined that it was inappropriate to use this MACT floor approach to establish emission limits for boilers and process heaters. The main problem with using only the HAP emissions data is that, based on the test data alone, uncontrolled units (or units with low efficiency add-on controls) were frequently identified as being among the best performing 12 percent of sources in a subcategory, while many units with high efficiency controls were not. However, these uncontrolled or poorly controlled units are not truly among the best controlled units in the category. Rather, the emissions from these units are relatively low because of particular characteristics of the fuel that they burn, that can not reasonably be replicated by other units in the category or subcategory. A review of fuel analyses indicate that the concentration of HAP (metals, HCl, mercury) vary greatly, not only between fuel types, but also within each fuel type. Therefore, a unit without any add-on controls, but burning a fuel containing lower amounts of HAP, can have emission levels that are lower than the emissions from a unit with the best available add-on controls. If only the available HAP emissions data are used, the resulting MACT floor levels would, in most cases, be unachievable for many, if not most, existing units, even those that employ the most effective available emission control technology. Another problem with using only emissions data is that there is very limited or no HAP emissions information available to the Agency for the subcategories. This is consistent with the fact that units in these source categories have not historically been required to test for HAP emissions.

We also considered using HAP emission limits contained in State regulations and permits as a surrogate for actual emission data in order to identify the emissions levels from the best performing units in the category for purposes of establishing MACT standards. However, we found no State regulations or State permits which specifically limit HAP emissions from these sources.

Consequently, we concluded that the most appropriate approach for determining MACT floors for boilers and process heaters is to look at the control options used by the units within each subcategory in order to identify the best performing units. Information was available regarding the emission control options employed by the population of boilers identified by the EPA. We considered several possible control techniques (*i.e.*, factors that influence emissions), including fuel substitution, process changes and work practices, and add-on control technologies.

We first considered whether fuel switching would be an appropriate control option for sources in each subcategory. We considered the feasibility of both fuel switching to other fuels used in the subcategory and to fuels from other subcategories. This consideration included determining whether switching fuels would achieve lower HAP emissions. A second consideration was whether fuel switching could be technically achieved by boilers and process heaters in the subcategory considering the existing design of boilers and process heaters. We also considered the availability of various types of fuel. After considering these factors, we determined that fuel switching was not an appropriate control technology for purposes of determining the MACT floor level of control for any subcategory. This decision was based on the overall effect of fuel switching on HAP emissions, technical and design considerations, and concerns about fuel availability.

We also concluded that process changes or work practices were not appropriate criteria for identifying the MACT floor level of control for units in the boilers and process heaters category. The HAP emissions from boilers and process heaters are either fuel dependent (*i.e.*, mercury, metals, and inorganic HAP) or combustion related (*i.e.*, organic HAP). Fuel dependent HAP are typically controlled by removing them from the flue gas after combustion. Therefore, they are not affected by the operation of the boiler or process heater. Consequently, process changes would be ineffective in reducing these fuel-related HAP emissions.

On the other hand, organic HAP can be formed from incomplete combustion

of the fuel. Good combustion practice (GCP), in terms of boilers and process heaters, could be defined as the system design and work practices expected to minimize organic HAP emissions. While few sources in EPA's database specifically reported using good combustion practices, the data that we have suggests that boilers and process heaters within each subcategory might use any of a wide variety of different work practices, depending on the characteristics of the individual unit. The lack of information, and lack of a uniform approach to assuring combustion efficiency, is not surprising given the extreme diversity of boilers and process heaters, and given the fact that no applicable Federal standards, and most applicable State standards, do not include work practice requirements for boilers and process heaters. Even those States that do have such requirements do not require the same work practices. For example, CO emissions are generally a good indicator of incomplete combustion, and, therefore, low CO emissions might reflect good combustion practices. (As discussed in the proposal, CO is considered a surrogate for organic HAP emissions.) Therefore, we considered whether existing CO emission limits might be used to establish good combustion practice standards for boilers and process heaters. We reviewed State regulations applicable to boilers and process heaters, and then for each subcategory we matched the applicability of State CO emission limits with information on the locations and characteristics of the boilers and process heaters in the population database. Ultimately, we found that very few units (less than 6 percent) in any subcategory were subject to CO emission limits. We concluded that this information did not allow EPA to identify a level of performance that was representative of good combustion across the various units in any subcategory. Therefore, we did not establish a CO emission limit, as a surrogate for organic HAP emissions, as a part of the MACT floor for existing units. However, we have considered the appropriateness of such requirements in the context of evaluation possible beyond-the-floor options.

In general, boilers and process heaters are designed for good combustion. Facilities have an economic incentive to ensure that fuel is not wasted, and the combustion device operates properly and is appropriately maintained. In fact, existing boilers and process heaters are used typically as high efficiency control devices to control (reduce) emission streams containing organic HAP compounds from various process operations. Therefore, EPA's inability to establish a combustion practice requirement as part of the MACT floor for existing sources in this category should not reduce the incentive for owners and operators to run their boilers and process heaters at top efficiency.

As a result of the evaluation of the feasibility of establishing emission limits based on control techniques such as fuel switching and good combustion practices, we concluded that add-on control technology should be the primary factor for purposes of identifying the best controlled units within each subcategory of boilers and process heaters. We identified the types of air pollution control techniques currently used. We ranked those controls according to their effectiveness in removing the different HAP categories of pollutants; including metallic HAP and PM, inorganic HAP such as acid gases, mercury, and organic HAP. We then listed all the boilers and process heaters in the population database in order of decreasing control device effectiveness within each subcategory for each pollutant type. Then we identified the top 12 percent of units within each category based on this ranking, and determined what kind of emission control technology, or combination of technologies, the units in the top 12 percent employed. Finally, we looked at the emissions test data from boilers and process heaters that used the same control technology, or technologies, as the units in the top 12 percent to estimate the average emissions limitation achieved by these units.

This approach reasonably ensures that the emission limit selected as the MACT floor adequately represents the average level of control actually achieved by units in the top 12 percent. The analysis of the measured emissions from units representative of the top 12 percent is reasonably designed to provide a meaningful estimate of the average performance, or central tendency, of the best controlled 12 percent of units in a given subcategory. For existing subcategories where less than 12 percent of units in the subcategory use any type of control technology, we looked to see if we could estimate the central tendency of the best controlled units by looking at the unit occupying the median point in the top 12 percent (the unit at the 94th percentile). If the median unit of the top 12 percent is using some control technology, we might use the measured emission performance of that individual unit as the basis for estimating an appropriate average level of control of the top 12 percent. For subcategories where less than 6 percent of the units in a HAP grouping used controls or limited emissions, the median unit for that HAP grouping reflects no emissions reductions. Therefore, in these circumstances, EPA has appropriately established the MACT floor emission levels for these sources as no emission reduction.

Comment: Many commenters opposed EPA using emissions data from units in the large subcategory to develop emission limits for units in the small or limited use subcategories. Some commenters stated that it was not appropriate to assume that emissions rates achievable by large units are achievable by small units, even the best controlled units. Other commenters argued that the use of large unit data in MACT determinations for other subcategories would defeat the purpose of the subcategorization and violate the requirements of CAA section 112 because the use of this data does not represent sources in the relevant category or subcategory.

Response: The EPA disagrees with the commenters and maintains that it has conducted the MACT floor analysis appropriately. Section 112(d) of the CAA requires us to establish emission limits for new sources based on the performance of the best-controlled similar source. The CAA does not specify that the similar source must be within the same source category or subcategory. To the contrary, our interpretation of section 112(d) is that we are obligated to consider similar sources from other source categories or subcategories in determining the best-controlled similar source for establishing MACT for new sources.

For new limited use and small units, we concluded that the best-controlled similar sources are found in the large subcategory. First, EPA determined the control technology used by the best controlled sources in the subcategory. For example, only units in the population database less than 10 MMBtu/hr (and not in the limited use subcategory) were used to determine the MACT floor control technology for units in the small subcategories. Second, EPA used information in the emissions test database to establish the emission level associated with the MACT floor control technology. The emissions test database did not contain test data for limited use or small boilers and process heaters. Section 112(d) of the CAA requires EPA to use information from similar sources to set the MACT floor. Such sources may not be in the same subcategory. Although the units in the small and

limited use subcategories are different enough to warrant their own subcategory (*i.e.*, different purposes and operation), emissions of the specific types of HAP for which limits are being proposed are expected to be related more to the type of fuel burned and the type of control used, than to unit operation. Consequently, EPA determined that emissions information from large fuel-fired units could be used to establish MACT floor levels for the small and limited use subcategories because the fuels and controls are similar. The proposal preamble requested additional information from commenters to refine/revise the approach if necessary. No commenters provided emissions information for limited use or small subcategory boilers or process heaters.

Comment: Several commenters requested that EPA account for variability in fuel composition as MACT floors are established and to provide adequate allowances for inherent fuel supply variability. Some commenters argued that there is no flexibility in the rule to account for this variability and noted that coal composition can vary by location and also within an individual seam.

Response: As described in the memorandum ''Revised MACT Floor Analysis for the Industrial, Commercial, and Institutional Boilers and Process Heater National Emission Standards for Hazardous Air Pollutants Based on Public Comments'' in the docket, the calculation of numerical emission limits was a two-step analysis. The first step involved calculating a numerical average of the appropriate subset of emission test data. The second step involved generating and applying an appropriate variability factor to account for unavoidable variations in emissions due to uncontrollable variations in fuel characteristics and ordinary operational variability. Accounting for variability is appropriate in order to generate a more accurate estimation of the actual, long term, performance of a source (*e.g.*, the source occupying the median point in the top 12 percent). An emission test provides a momentary snapshot, not an estimation of continuous performance. In order to translate the former into the latter, we must account for that ordinary and unavoidable variability that the source is likely to experience over time. This gives us a more reasonable estimate of the actual level of emissions control that the unit is achieving. The EPA contends that by considering the variability of emissions information, we have indirectly incorporated variability in fuel, operating conditions, and sampling and analytical conditions because these parameters vary from emission tests conducted from one unit to another, and even within each test set of three measurements at a single unit. The most elementary measure of variation is range. Range is defined as the difference between the largest and smallest values. This is the variability methodology used in the proposed rule. That is, for each unit with multiple emissions tests conducted over time, the variability was calculated by dividing the highest three-run test result by the lowest three-run test result. The overall variability was calculated by averaging all the individual unit variability factors. This overall variability factor was multiplied by the overall average emission level to derive a MACT floor limit representative of the average emission limitation achieved by the top 12 percent of units. This approach adequately accounts for inherent fuel supply variability. Based on comments, EPA did conduct a more robust statistical analysis (t-test) of the mercury emissions data used in the MACT floor analysis to identify the 97.5th percent confidence limit. This analysis provided similar results to the variability analysis conducted in the proposed rule. Consequently, EPA decided not to change its variability methodology. A detailed discussion of the statistical analysis conducted is provided in the memorandum ''Statistical Analysis of Mercury Test Data Variability in Response to Public Comments on Determination of the MACT Floor for Mercury Emissions'' in the docket.

Comment: Several commenters supported EPA's finding that the MACT floor level of control for existing gaseous and liquid fuel units is no control. Other commenters noted that EPA has a clear statutory obligation to set emission standards for each listed HAP (the commenter cited legal briefs). One commenter specifically challenged EPA's determination of the MACT floor for organic pollutants. The commenter explained that EPA should rank the units for which emissions data is available according to the best performing units, not based on the add-on control level of 6 percent of the total population. The commenter noted that the U.S. Court of Appeals for the DC Circuit had squarely held, in the National Lime case, that EPA was not allowed to make a ''no control'' determination for a pollutant emitted by a listed category of sources.

Response: The EPA agrees that all factors which might control HAP emissions must be considered in making a floor determination for each subcategory. However, EPA disagrees that it must express the floor as a quantitative emission level in those instances where the sources on which the floor determination is based has not adopted or implemented any measure that would reduce emissions. For several subcategories and certain HAP, EPA has not identified any adjustments or other operational modifications that would materially reduce emissions by these units, and EPA had determined that no add-on controls are presently in use. In these circumstances, EPA has established appropriately the MACT floors for these sources as no emission reduction.

Comment: One commenter pointed out that the variability factor used to make the calculated MACT floor less stringent is not allowed by section 112 of the CAA. The commenter mentioned that the variability factors are not consistent, as one factor considers the fuel variability and the other factor considers the test data variability.

Response: Section 112(d)(2) of the CAA requires that emissions standards promulgated shall require the maximum degree of reductions in emissions that the EPA Administrator, taking into consideration the costs of achieving such emission reduction, determines is achievable for new and existing sources in the subcategory to which such emission standards applies. Accounting for variability is appropriate in order to generate a more accurate estimation of the actual, long term, performance of a source (*e.g.*, the source occupying the median point in the top 12 percent). An emission test provides a momentary snapshot, not an estimation of continuous performance. In order to translate the former into the latter, we must account for that ordinary and unavoidable variability that the source is like to experience over time. This give us a more reasonable estimate of the actual level of emissions control that the unit is achieving. As such, due to variations in fuel burned, and ordinary operational variability any emission limit set from a point source measurement alone may not be indicative of normal emissions or operations of the unit. Attempting to base a standard (either a floor standard, or a beyond-the-floor standard) solely on point measurements would lead to unachievable standards for all sources. Limits set by EPA must be achieved at all times, and it is important that the MACT floor limit adequately account for the normal and unavoidable variability in the process and in the operation of the control device.

Variability was assessed two ways. For existing subcategories, variability in emissions information was used to develop variability factors for all

subcategories where emissions information was available. Variability in fuel content was used only in situations regarding determining the achievable MACT floor level for new sources from the emission test result on the best controlled similar source. This approach is appropriate since the main uncertainty associated with the emission test result from the best controlled similar source is fuel variability. Corresponding fuel analysis results were not available for the emissions test results from the best controlled similar source. Whereas, the average emission level of the best 12 percent of the units has, besides fuel variability, the uncertainty associated with operational and design variability of the various control devices installed on units that represent the best 12 percent of the units. For example, available fuel analysis information shows that mercury content of coal varies by a factor of 12.54. Dividing the highest mercury emission test result by the lowest mercury test results from coal-fired units included in units that represent the best 12 percent results in a variability factor of 20. Therefore, we concluded that fuel availability was inherently considered in the MACT floor analysis approach used for existing subcategories.

Comment: Many commenters requested that EPA revise the MACT floor methodology for mercury emission limits. The commenters contended that the variability factor was calculated inappropriately. Other commenters stated that EPA should account for variability in fuel composition in the MACT floor analysis. Other commenters expressed concern that the floor level of control was based on fabric filters, which has not been proven at all sources to reduce mercury.

Response: As discussed in the proposal preamble, the MACT floor analysis for mercury was based on a two step process. First the percentage of units with control technologies that could achieve mercury emissions reductions was determined using the boiler population databases. If the control technology analysis indicated that at least 12 percent of sources in the subcategory used a control device that could achieve mercury emissions reductions, then the control technology present at the median (6th percentile) was identified as the MACT floor control technology. The MACT floor level of control for mercury was identified as a fabric filter. The control effectiveness of fabric filters was based on emissions information for utility boilers that indicated that mercury emissions reductions were being achieved with this technology. In this case, we could use control efficiency information from another similar source category to supplement the information available in this source category because of the similarity in fuel burned, combustor type, and control methodology and operation. We maintain that fabric filters are still the appropriate level of control for the MACT floor.

Second, the emission limit associated with the MACT floor control technology was calculated using emissions information for units in the subcategory, whenever possible. For most of the subcategories developed, emissions information was adequate. Only for the emission limit for new source liquids and the variability factor for new source solids was fuel pollutant content incorporated into the MACT floor analyses. The mercury fuel content of coal from the utility industry was used in developing the variability factors for new solid fired units. This was done because mercury emissions are dependent on the quantity of mercury in the fuel burned. Coal available to utilities and industrial boilers and process heaters is expected to be similar, and coal is the solid fuel that is routinely used in such units that has generally the greatest degree of HAP variability. We maintain that the utility database used at proposal to develop the variability factor for new sources was adequate in establishing the MACT floor emission limit.

The EPA recognizes that the mercury emissions database for industrial boilers is limited. However, EPA is directed by the CAA to develop standards for sources using whatever data is available. Prior to proposal and during the Industrial Combustion Coordinated Rulemaking (ICCR) process, EPA conducted a thorough search for HAP emission test reports. This search was supported by industry, trade groups, and States. For criteria pollutants, such as PM, substantial emission information was available and gathered. For mercury and other HAP, this was not the case. Industrial boilers have not generally been required to test for HAP emissions. In the proposed rule, EPA requested commenters to provide additional emissions information. However, only one source provided any additional mercury emissions data. This information (test results from three additional coal-fired industrial boilers) was used to revise the mercury emission limit for existing sources. We also reviewed the mercury emission database used to develop the MACT floor emission limit for existing sources. After review, we determined that a revision to the variability factor was appropriate. The additional data and the revised variability factor was used to re-calculate the mercury emission limit to be 0.000009 lb/MMBtu (from 0.000007 lb/MMBtu at proposal). A detailed discussion of the revised MACT floor analysis conducted is provided in the memorandum ''Revised MACT Floor Analysis for the Industrial, Commercial, and Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants Based on Public Comments'' in the docket.

Variability of the emissions data were incorporated into the final emission limits. The EPA contends that by considering the variability of emissions information, we have indirectly incorporated variability in fuel, operating conditions, and sampling and analytical conditions because these parameters vary from emission tests conducted from one unit to another, and even within one unit. The EPA does not consider it appropriate or feasible to incorporate variability from a multitude of parameters because such information is not available and cannot be correlated to the emissions information in the emissions test database. For the final rule, EPA did conduct a statistical analysis of the data to identify the 97.5th percent confidence interval. This analysis provided similar results to the variability analysis conducted in the proposed rule. Consequently, EPA decided not to change its variability methodology. A detailed discussion of the statistical analysis conducted is provided in the memorandum ''Statistical Analysis of Mercury Test Data Variability in Response to Public Comments on Determination of the MACT Floor for Mercury Emissions'' in the docket.

Comment: Several commenters contended that the California standards which the CO requirements are based on do not require CO CEMS, but require initial compliance testing and periodic subsequent performance testing.

Response: The commenters are correct that the California CO regulations do not require CO CEMS. The regulations do provide sources with the option of conducting annual testing or installing CO CEMS to demonstrate compliance with the CO emission limit. Because the regulations that were the basis of the MACT floor do not provide specifics on which boilers should conduct annual testing and which should use CO CEMS, we reviewed the cost information provided by the commenters to make this determination. In considering the additional cost information and reviewing the cost information used in the proposed rule, the EPA decided that

changes to the CO compliance requirements were warranted. The final rule requires that new units with heat input capacities less than 100 MMBtu/hr conduct initial and annual performance tests for CO emissions. New units with heat input capacities greater or equal to 100 MMBtu/hr are still required to install, operate, and maintain a CO CEMS.

Regardless of whether the California regulations do or do not require CO CEMS, we would have reviewed the need for continuous monitoring and operating limits in order to ensure the most accurate indication of proper operation of the control system. The purpose of all of the minimum operating parameter limits in the standard is to ensure continuous compliance by ensuring that the air pollution control equipment is operating as they were during the latest performance test demonstrating compliance with the emission limits. The operating parameters are established as ''minimum'' to provide enforceable boundaries in their operation. Operating outside the bounds of the minimum parameters may lead to increased air emissions.

The EPA would also like to clarify that operation above the CO limit constitutes a deviation of the work practice standard. However, the determination of what deviations constitute violations of the standard is up to the discretion of the entity responsible for enforcement of the standards.

F. Beyond the MACT Floor

Comment: Many commenters contended that carbon injection should have been required as a beyond-the-floor option. Other commenters supported EPA's decision to not require any controls beyond-the-floor.

Response: For the final rule, EPA maintains that options beyond the MACT floor are not appropriate for the standard. The EPA is required by the CAA to set the standard at a minimum on the best controlled 12 percent of sources (for existing units) or best controlled similar source (for new units). The CAA also requires EPA to consider costs and non-air quality impacts and energy requirements when considering more stringent requirements than the MACT floor. As documented in the memorandum ''Methodology for Estimating Costs and Emissions Impacts for Industrial, Commercial, and Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants'' in the docket, EPA did consider the cost and emission impacts of a variety of regulatory options more stringent than the MACT floor for each subcategory. The EPA recognizes that for some subcategories, more stringent controls than the MACT floor can be applied and achieve additional emissions reductions. However, EPA also determined that the cost impacts of such controls were very high. Considering both the costs and emissions reductions, EPA determined that it would be infeasible to require any options more stringent than the floor level.

For the final rule, EPA maintains that carbon injection should not be required as an above the floor technology. As discussed in the proposal preamble, we identified one existing industrial boiler that was using carbon injection. The emissions data that we obtained from the boiler indicated that this carbon injection unit was not achieving mercury emissions reductions. This result led us to conclude that it was not the new source floor level of control. However, there may have been other reasons for the ineffectiveness of this system (*e.g.*, low inlet mercury levels, insufficient carbon injection rate, ESP instead of fabric filter for PM control). Therefore, we considered carbon injection as a beyond-the-floor option, but decided that while this control technique has been used in other source categories, there is no demonstrated evidence that it would work for industrial boilers and process heaters because the type of mercury emitted and properties of the emission streams are sufficiently different for boilers and process heaters and other source categories.

G. Work Practice Requirements

Comment: Many commenters requested EPA consider exceedences of the CO limit to be a trigger for corrective action rather than a violation.

Response: In the final rule, we have clarified that an exceedence of the CO limit constitutes a deviation of the work practice standard. An observed exceedence of a monitoring parameter is not an automatic violation. You are required to report any deviation from an applicable emission limitation (including operating limit). We will review the information in your report along with other available information to determine if the deviation constitutes a violation. The determination of what emission or operating limit deviation constitutes violations of the standard is up to the discretion of the entity responsible for enforcement of the standard.

H. Compliance

Comment: Many commenters requested that EPA simplify and write the fuel monitoring requirements to not require retesting of fuel for changes in fuel supplier.

Response: We agree that the fuel monitoring requirements in the proposal needed to be clarified and explained further. Therefore, we have clarified the fuel analysis options in the final rule. If you elect to demonstrate compliance with the HCl, mercury, or total selected metals limit by using fuel which has a statistically lower pollutant content than the emission limit, then your operating limit is the emission limit of the applicable pollutant. Under this option, you are not required to conduct performance tests (*i.e.* stack tests).

If you demonstrate compliance with the HCl, mercury, or total selected metals limit by using fuel with a statistically higher pollutant content than the applicable emission limit, but performance tests demonstrate that you can meet the emission limits, then your operating limits are the operating limits of the control device (if used) and the fuel pollutant content of the fuel type/mixture burned.

The final rule specifies the testing methodology and procedures and the initial and continuous compliance requirements to be used when complying with the fuel analysis options. Fuel analysis tests for total chloride, gross calorific value, mercury, metal analysis, sample collection, and sample preparation are included in the final rule.

If you elect to comply based on fuel analysis, you are required to statistically analyze, using the z-test, the data to determine the 90th percentile confidence level. It is the 90th percentile confidence level that is required to be used to determine compliance with the applicable emission limit. The statistical approach is required to assist in ensuring continuous compliance by statistically accounting for the inherent variability in the fuel type.

You are required to recalculate the fuel pollutant content only if you burn a new fuel type or fuel mixture. You are required to conduct another performance test if you demonstrate compliance through performance testing, you burn a new fuel type or mixture, and the results of recalculating the fuel pollutant content are higher than the level established during the initial performance test.

Comment: Many commenters requested EPA consider exceedences of

parametric limits to be a trigger for corrective action rather than a violation.

Response: In the final rule, we have clarified that an exceedence of the parametric limits constitute a deviation of the operating limits. An observed exceedence of a monitoring parameter is not an automatic violation. You are required to report any deviation from an applicable emission limitation (including operating limit). We will review the information in your report along with other available information to determine if the deviation constitutes a violation. The determination of what emission or operating limit deviation constitutes violations of the standard is up to the discretion of the entity responsible for enforcement of the standard.

Comment: Many commenters requested EPA revise the opacity requirements. Commenters objected to the provision in the proposed NESHAP that would establish an opacity ''operating limit'' based on the initial performance test. Some commenters contended that EPA has provided no data or references demonstrating a relationship between opacity and particulate, total metals, or mercury emissions. Other commenters argued that the proposed opacity limit approach for dry control devices is unworkable due to the inherent inability of continuous opacity monitors (COMS) to accurately measure opacity at levels less than 10 percent. Some commenters argued that the performance and opacity achieved during the initial test may not be representative of the unit's performance. Other commenters explained that equipment condition, fuel and operating variations, and other uncontrollable parameters may result in varying emissions and emissions control equipment efficiencies over time. Commenters suggested requiring the NSPS limits for opacity rather than setting opacity based on the initial compliance test.

Response: We have reviewed the information provided by the commenters, and agree that the opacity operating limit requirements in the proposed rule are not appropriate for this source category. Because of the variability in fuels burned, the combination of fuels burned, and the typical operation of boilers and process heaters, we have decided that an opacity limit set based on the initial performance test may not be representative of the units typical performance.

We have revised the opacity operating limit provision by requiring existing units to maintain opacity to less than or equal to 20 percent (based on 6-minute averages) except for one 6-minute period per hour of not more than 27 percent. This is the opacity limit contained in the current NSPS for industrial boilers, which has a similar PM emission limit as the final rule. Therefore, it was determined that it was appropriate to include a similar opacity level as the control device operating limit for existing units. New sources can maintain their opacity operating limit to less than or equal to 10 percent (based on 1-hour block averages). This level appears to be the lowest opacity level currently applicable to industrial boilers in State regulations.

Comment: Several commenters objected to the requirement to conduct performance testing at worst case conditions. The commenters found this requirement to be unrealistic because stack testing must be scheduled well in advance and worst-case conditions depend on fuel, load, and many other variables, making it impossible to assure that the testing will occur during worst-case conditions. Two commenters contended there can be no guarantee that mineral properties for a fuel source at the time of the baseline test can be guaranteed beyond the content identified during purchase contract negotiations with a fuel supplier. Two commenters suggested that EPA define what worst case conditions are because sources do not have the experience to determine worst-case representative process conditions.

Response: We agree that more direction and clarification is needed regarding testing at worst case conditions. We have modified fuel sampling requirements and performance testing fuel use requirements to simplify compliance. During performance testing, sources are required to burn the type of fuel or mixture of fuel types that have the highest concentration of regulated HAP. This, in combination with revised fuel sampling requirements (*e.g.*, based on fuel type and not on supplier, etc.), will simplify the determination of the fuel blend during the performance test. Sources are also required to conduct performance tests under representative full load operating conditions.

Comment: Several commenters objected to the requirement for annual performance tests because they felt that it is overly burdensome given the ongoing compliance demonstrations required by the NESHAP. Several commenters suggested that initial performance testing should be required with subsequent performance testing occurring every 3 to 5 years. Some commenters stated that 5-year test intervals are consistent with title V permits and have been allowed in other MACT standards (*e.g.* Hazardous Waste Combustors).

Response: We have worked to minimize the testing and monitoring requirements of the final rule while retaining the ability to ensure compliance with the emission limits and work practice requirements. We are providing an option for sources to conduct performance testing once every 3 years if they conduct successful performance testing for 3 consecutive years. We are also allowing sources to demonstrate compliance with the HCl, mercury, and total selected metals emission limits through fuel testing if they do not need emission control devices to achieve the standard.

I. Emissions Averaging

In the proposal preamble, we solicited comments on an emissions averaging or bubbling compliance alternative, as part of the EPA's general policy of encouraging the use of flexible compliance approaches where they can be properly monitored and enforced, and whether EPA should include emissions averaging in the final rule. Emissions averaging can provide sources the flexibility to comply in the least costly manner while still maintaining regulation that is workable and enforceable. We requested comment on an averaging approach for determining compliance with the non-mercury metallic HAP, HCl, mercury, and/or PM standards for existing sources. We indicated that averaging would allow owners and operators to submit non-mercury metals, mercury, HCl, and/or PM emissions limits to the EPA Administrator for approval for each existing boiler in the averaging group such that if these emission limits are met, the total emissions from all existing boilers in the averaging group are less than or equal to emission limits (for non-mercury metals, mercury, HCl, or PM) applicable to units in the particular subcategory. We indicated also that averaging would not be applicable to new sources and could only be used between boilers and process heaters in the same subcategory. Also, owners or operators of existing sources subject to the Industrial Boiler New Source Performance Standards NSPS (40 CFR part 60, subparts Db and Dc) would be required to continue to meet the PM emission standard of that NSPS regardless of whether or not they are averaging.

Emissions averaging has been incorporated into the final rule as an alternative means of complying with the final rule. Emissions averaging allows an individual affected unit emitting

above the allowable emission limit required by the final rule to comply with that emission limit by averaging its emissions with other affected units at the same facility emitting below the allowable emission limit required by the final rule.

Comment: Many commenters supported including averaging in the final rule. Commenters cited numerous reasons, including cost effectiveness, energy efficiency, greater flexibility in compliance, and greater environmental benefit. Commenters also cited 40 CFR part 63, subpart MM, Pulping Chemical Recovery Combustion MACT as a precedent for including emissions averaging in MACT standards. Two commenters disagreed with allowing emissions averaging, stating that it would complicate compliance determinations, does not fit within the CAA mandate, and is inconsistent with the purpose of CAA section 112. Many of those commenters who supported emissions averaging recommended additional flexibility, such as including new units, and bubbling across subcategories.

Response: The final rule includes an emissions averaging compliance alternative because emissions averaging represents an equivalent, more flexible, and less costly alternative to controlling certain emission points to MACT levels. We have concluded that a limited form of averaging could be implemented and not lessen the stringency of the standard. We agree with the commenters that some type of emissions averaging would provide flexibility in compliance, cost and energy savings to owners and operators. We also recognize that we must ensure that any emissions averaging option can be implemented and enforced, will be clear to sources, and most importantly, will achieve no less emissions reductions than unit by unit implementation of the MACT requirements.

The final rule is not the first NESHAP to include provisions permitting emission averaging. In general, EPA has concluded that it is permissible to establish within a NESHAP a unified compliance regimen that permits averaging across affected units subject to the standard under certain conditions. Averaging across affected units is permitted only if it can be demonstrated that the total quantity of any particular HAP that may be emitted by that portion of a contiguous major source that is subject to the NESHAP will not be greater under the averaging mechanism than it would be if each individual affected unit complied separately with the applicable standard. Under this rigorous test, the practical outcome of averaging is equivalent in every respect to compliance by the discrete units, and the statutory policy embodied in the MACT floor provisions is, therefore, fully effectuated.

The EPA has generally imposed certain limits on the scope and nature of emissions averaging programs. These limits include: (1) No averaging between different types of pollutants, (2) no averaging between sources that are not part of the same major source, (3) no averaging between sources within the same major source that are not subject to the same NESHAP, and (4) no averaging between existing sources and new sources.

The final rule fully satisfies each of these criteria. Accordingly, EPA has concluded that the averaging of emissions across affected units permitted by the final rule is consistent with the CAA. In addition, EPA notes that the provision in the final rule that requires each facility that intends to utilize emission averaging to submit an emission averaging plan provides additional assurance that the necessary criteria will be followed. In this emission averaging plan, the facility must include the identification of (1) all units in the averaging group, (2) the control technology installed, (3) the process parameter that will be monitored, (4) the specific control technology or pollution prevention measure to be used, (5) the test plan for the measurement of particulate matter (or selected total metals), hydrogen chloride, or mercury emissions, and (6) the operating parameters to be monitored for each control device. Upon receipt, the regulatory authority will not approve an emission averaging plan containing averaging between emissions of different types of pollutants or between sources in different subcategories.

The final rule excludes new affected sources from the emissions averaging provision. New sources have historically been held to a stricter standard than existing sources because it is most cost effective to integrate state-of-the-art controls into equipment design and to install the technology during construction of new sources. One reason we allow emissions averaging is to give existing sources flexibility to achieve compliance at diverse points with varying degrees of add-on control already in place in the most cost-effective and technically reasonable fashion. This concern does not apply to new sources which can be designed and constructed with compliance in mind.

Only existing large solid fuel units, as defined in the final rule, can be included in the emissions averaging compliance alternative. Of the nine subcategories established for existing sources, existing large solid fuel units is the only subcategory for which multiple HAP emissions limits apply. For the existing small solid fuel subcategory and the six existing gaseous and liquid fuel subcategories, no HAP emissions limits are included in the final rule and, thus, it would not be appropriate to allow these units to average emissions. As for the existing limited use solid fuel subcategory, since these units, as defined in the final rule, operated on a limited basis (capacity factor of less than 10 percent) and are subject only to a less stringent PM emissions limit (as a surrogate for non-mercury metals), it would be inappropriate to allow these units to average emissions.

With concern about the equivalency of emissions reductions from averaging and non-averaging in mind, the EPA Administrator is also imposing under the emission averaging provision caps on the current emissions from each of the sources in the averaging group. The emissions for each unit in the averaging group would be capped at the emission level being achieved on the effective date of the final rule. These caps would ensure that emissions do not increase above the emission levels that sources currently are designed, operated, and maintained to achieve. In the absence of performance tests, in documenting these caps, these sources will documented the type, design, and operating specification of control devices installed on the effective date of the final rule to ensure that existing controls are not removed or lessen. By including this provision in the final rule, the EPA Administrator has taken yet another step to assist in ensuring that emission averaging results in environmental benefits equivalent or better over what would have happened without emission averaging.

The inclusion of emissions averaging into rules and the decision on how to design an emission averaging approach for a particular source category must be evaluated for each source category.

J. Risk-based Approach

Comment: Multiple commenters supported EPA's incorporation of risk-based concepts into the MACT Program. One commenter stated that providing risk-based applicability criteria for sources whose HAP emissions do not pose a significant risk is appropriate. Several commenters stated that there is clear legal authority in the CAA to construct NESHAP based on risk, and such an approach is very appropriate in the case of the Industrial Boiler MACT. The commenter also noted that the regulatory framework exists within their

State to implement such an approach. Several commenters added that risk-based alternatives will function as indirect emission limits that must be maintained by the facilities to assure that the criteria are met, and, thus, such alternatives for low-risk facilities are supportable by EPA's authority under section 112(d)(4) and 112(c)(9) of the CAA and EPA's inherent *de minimis* authority. Another commenter asserted that there are ways to structure the rule to focus on facilities that pose significant risks and avoid imposition of high costs on facilities that pose little risk. An appropriate approach would be to allow individual facilities to conduct a risk assessment to show that they pose insignificant risks to the public. However, one commenter stated that it is not appropriate for State and local programs to determine which facilities should be exempted from MACT. Several commenters supported a risk-based compliance alternative for HCl.

Response: The EPA has determined that it can establish applicable health-based emission standards for HCl and manganese for affected sources in this category pursuant to its authority under section 112(d)(4) of the CAA. As a result, EPA has included such standards in the final rule as alternative compliance requirements. Under this approach, affected sources can choose to comply with either the MACT-based emission limits or the health-based emission limits. Sources which choose to comply with the health-based emission limit(s) will remain subject to those limits, but will need to comply with testing, monitoring and reporting requirements commensurate with the compliance option they have chosen. Such health-based standards are consistent with both the commenters' support for an approach that minimizes the impact on low-risk facilities and EPA's statutory mandate under section 112.

Section 112(d)(4) of the CAA authorizes EPA to consider established health thresholds, with an ample margin of safety, when promulgating emission standards under section 112. Hydrogen chloride and Mn are two pollutants for which health thresholds have been established. Issues concerning our legal authority to establish health-based emission standards under section 112(d)(4) are discussed in detail below.

We are not using CAA section 112(c)(9) for the final rule, and there is no delisting of categories or subcategories, as would be consistent with section 112(c)(9).

The criteria defining how affected sources demonstrate that they meet the threshold emissions levels for the health-based compliance alternative(s) is included in appendix A to the final rule. The criteria in appendix A to the final rule were developed for and apply only to the Boiler and process heater source category and are not applicable to other source categories. The final rule provides two ways that an affected source may demonstrate compliance with the health-based emission limits. The first option is through the use of lookup tables which allow facilities to determine, using a limited number of site-specific input parameters, whether emissions from boilers and process heaters might cause a hazard index (HI) limit for non-carcinogens to be exceeded. The second option is a modeling approach which allows those facilities that do not match the site-specific input parameters on which the lookup tables are based to demonstrate compliance with the health-based emission limits by modeling using site-specific information.

The affected source will have to demonstrate that it meets the criteria established by today's final rule and then assume Federally enforceable limitations, as described in appendix A of the final rule, that ensure their specified HAP emissions do not subsequently increase to exceed levels reflected in their demonstrations.

Comment: Multiple commenters are opposed to the risk-based exemptions. Some noted that the proposal to include risk-based exemptions is critically flawed and opposes adoption of the risk-based exemptions.

One commenter stated that the inclusion of case-by-case risk-based exemptions into the first phase of the MACT program will negate the legislative mandate and jeopardize the effectiveness of the national air toxics program to adequately protect public health and the environment and to establish a level playing field. The commenter was very concerned that EPA referenced a fundamentally flawed interpretation of CAA section 112(d)(4) written by an industry (AF&PA) subject to regulation. Of particular concern was AF&PA's unprecedented proposal to include ''*de minimis* exemptions'' and ''cost'' in the MACT standard process.

One commenter stated that the use of risk-based concepts to evade MACT applicability is contrary to the intent of the CAA and is based on a flawed interpretation of section 112(d)(4) of the CAA. The commenter added that the CAA requires a technology-based floor level of control and does not provide exclusions for risk or secondary impacts from applying the MACT floor.

One commenter stated that in separate rulemakings and lawsuits, EPA has adopted legal positions and policies that refute and contradict the very risk-based and cost-based approaches contained in the proposals. In these other arenas, the commenter contended that EPA has properly rejected risk assessment to alter the establishment of MACT standards. The EPA also has properly rejected cost in determining MACT floors and in denying a basis for avoiding the MACT floor.

Several commenters stated that the preamble discussion of the risk-based approaches is not sufficient to allow for complete public comment and, therefore, it would not be appropriate for EPA to go directly to a final rule (without reproposal) with any of the approaches outlined in the proposal.

Response: We are not identifying and deleting a subcategory of sources in this source category pursuant to the authority of CAA section 112(c)(9). Legal issues associated with the health-based provisions are addressed below and in the comment/response memorandum.

As discussed above, we are, however, including in the final rule alternative health-based emission standards for HCl and TSM based on our authority under CAA section 112(d)(4). Section 112(d)(4) authorizes EPA to consider health thresholds, with an ample margin of safety, in establishing emission standards. The analysis necessary to do this can generally be characterized as a risk analysis. Thus, we disagree with the commenter that we must wait for implementation of CAA section 112(f) before utilizing risk analysis.

Comment: Many commenters stated that the proposal to include risk-based exemptions is contrary to the 1990 CAA Amendments (CAAA) which calls for MACT standards based on technology rather than risk as a first step. They added that congress incorporated the residual risk program under CAA section 112(f) to follow the MACT standards (not to replace them). The commenters added that the need for the technology-based approach has been recently reinforced by the results of the National Air Toxics Assessment (NATA), which indicates that exposure to air toxics is very high throughout the country in urban and remote areas. Several commenters added that risk-based approaches will be used separately to augment and improve technology-based standards that do not adequately provide protection to the public. One commenter added that they have been unable to substantiate the basis for EPA's support of the regulatory relief sought by industry through risk-based exemptions and that, in fact, the use of risk assessment at this stage of the

MACT program is directly opposed to title III of the CAA.

Response: We disagree that inclusion of health-based compliance alternatives, in the form of emission standards based on the authority of section 112(d)(4) of the CAA, in the final rule is contrary to the 1990 CAAA. The final rule is a technology-based standard developed using the procedures dictated by section 112 of the CAA. The only difference between the final rule and other MACT is that we used our discretion under section 112(d)(4) to base appropriate parts of the final rule on established health thresholds, with an ample margin of safety. The final rule is particularly well-suited for a health-based compliance alternative, established pursuant to the criteria set forth in section 112(d)(4). In addition to the fact that there are established health thresholds for HCl and manganese, EPA has determined that many of the facilities in this source category do not emit these pollutants in amounts that pose a significant risk to the surrounding population. Those sources that can demonstrate that the emissions of acid gases and manganese meet the threshold emission levels will be in compliance with the MACT. The criteria are based on health-protective estimates of risk and the threshold emission levels will provide ample protection of human health and the environment.

Inclusion of health-based compliance alternatives in the final rule does not alter the MACT program. Rather, it merely represents EPA availing itself, in appropriate circumstances, of the authority Congress granted it in section 112(d)(4) of the CAA. We recognize that such provisions are only appropriate for certain HAP, and our decision-making process required source category-specific input from stakeholders.

Although the NATA modeling study may show measurable concentrations of toxic air pollution across the country, these data do not suggest that EPA should not establish health-based emission standards pursuant to its authority under CAA section 112(d)(4) when it determines that it is appropriate to do so. The alternative health-based emission standards included in the final rule will ensure that affected sources which choose to comply with those standards do not emit HCl and/or manganese at levels that are harmful to public health.

Comment: Many commenters stated that the proposal to allow risk-based exemptions would divert back to the time-consuming NESHAP development process that existed prior to the CAAA of 1990. The commenters asserted that under this process, which began with a risk assessment step, only eight NESHAP were promulgated during a 20-year period. The commenters continued that if the proposed approaches are inserted into upcoming standards, the commenters fear the MACT program (which is already far behind schedule) would be further delayed. One commenter supported EPA efforts to determine alternative MACT setting methodologies but strongly recommended that these be pursued separately from the final rule. The commenter contended that this will provide for timely issuance of final RICE and Boiler/Process Heater MACT rules relative to the settlement deadline. Two commenters stated that delays could be exacerbated by litigation following legal challenges to the rules, and such delays would trigger the MACT hammer, which would unnecessarily burden the State and local agencies and the industries. The commenters concluded that further delay is unacceptable. The commenters did not want to be in a position of implementing the CAA section 112(j) program and urged EPA to not delay the issuance of any MACT standard. The commenters noted that according to a recently proposed EPA rule regarding section 112(j), the regulated community and State and local agencies would have to proceed with part 2 permit applications, followed by case-by-case MACT, if EPA misses the newly agreed-upon MACT deadlines by as little as 2 months. This would be time consuming, costly, and burdensome for both regulators and the regulated community.

Response: We disagree that allowing health-based compliance alternatives in the final rule will alter the MACT program or affect the schedule for promulgation of the remaining MACT standards. We do not anticipate any further delays in completing the remaining MACT standards. The setting of alternative health-based emission standards in the final rule affects only the final rule.

The approach taken in the final rule is particularly well-suited to acid gases and manganese, which are the only pollutants included in the health-based compliance alternatives. For many facilities, these pollutants are currently emitted in amounts that do not expose anyone in surrounding population to concentrations above the established health thresholds. As a result, emissions of HCl and/or manganese at these facilities do not pose a significant risk to the surrounding population. Only those Boiler facilities that demonstrate that their emissions are below the health-based emission standard(s), are eligible for the compliance alternatives.

Including health-based compliance alternatives for boiler sources does not mean that EPA will automatically provide such alternatives for other industries. Rather, as has been the case throughout the MACT rule development process, EPA will undertake in each individual rule to determine whether it is appropriate to exercise its discretion to use its authority under CAA section 112(d)(4) in developing applicable emission standards. The Boilers NESHAP is being promulgated by the February 2004 court-ordered deadline.

Comment: Many commenters stated that the risk-based proposal removes the level-playing field that would result from the proper implementation of technology-based MACT standards. The commenters added that establishing a baseline level of control is essential to prevent industry from moving to areas of the country that have the least stringent air toxics programs, which was one of the primary goals of developing a uniform national air toxics program under section 112 of the 1990 CAA amendments. The risk-based approaches would jeopardize future reductions of HAP in a uniform and consistent manner across the nation.

Response: Providing health-based compliance alternatives for sources that can meet them in the final rule will assure the application of a uniform set of requirements across the nation. The final rule and its criteria for demonstrating eligibility for the health-based compliance alternatives apply uniformly to boilers across the nation in the large solid fuel-fired subcategories. The final rule establishes a two baseline levels of emission reduction for HCl and manganese, one based on a traditional MACT analysis and the other based on EPA's evaluation of the health threat posed by emissions of these two pollutants. All Boiler facilities must meet one of these baseline levels, and all facilities with boilers in the applicable subcategories have the same opportunity to demonstrate that they can meet the alternative health-based emission standards. The criteria for qualifying to comply with the alternative health-based emission standards are not dependent on local air toxics programs. Therefore, concerns regarding facilities moving to areas of the country with less-stringent air toxics programs should be alleviated.

Comment: Multiple commenters stated that section 112(d)(4) of the CAA provides EPA with authority to exclude sources that emit threshold pollutants from regulation. The commenters indicated that section 112(d)(4) allows for discretion in developing MACT standards for HAP with health

thresholds. The commenters added that the use of section 112(d)(4) authority also is supported by CAA's legislative history, which emphasizes that Congress included section 112(d)(4) in the CAA to prevent unnecessary regulation of source categories.

One commenter pointed out that Congress does not differentiate between technology-based ''emission standards'' set under CAA section 112(d)(3) versus ''health threshold'' based ''emission standards'' set under CAA section 112(d)(4). Instead, the statute explicitly treats emission standards promulgated under section 112(d)(3) and 112(d)(4) as equivalent by not distinguishing between those emission standards under the residual risk provisions of CAA section 112(f). One commenter added that EPA is permitted to establish alternative standards as long as it ensures that ambient concentrations are less than the health thresholds plus a margin of safety and the emissions do not cause adverse environmental effects. Multiple commenters pointed out that EPA has exercised such authority and cited the NESHAP for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills. In addition, the commenters added that in that NESHAP, EPA identified circumstances in which they would decline to exercise 112(d)(4) authority-where significant or widespread environmental harm would occur as a result of emissions from the category and the estimated health thresholds are subject to substantial scientific uncertainty. The commenters concluded that EPA determined that these considerations were not relevant to emissions from the pulp and paper source category, and the commenters stated that the same is true for their source categories and that the same treatment is warranted for many facilities within the source categories. The commenters noted that facilities that cannot meet the risk criteria would remain subject to the MACT requirements.

One commenter added that the risk-based approaches are squarely in line with the plain meaning of section CAA 112(d)(4). The commenters cited the Senate report (Sen Rep. No. 228, 101st Congress, 1st Sess 175–6 (1990)) showed that Congress contemplated that sources within the same category or subcategory would be subject to varied regulatory requirements, depending on the risk they pose to public health. The commenters added that nothing in the statutory definition of ''emission standard'' suggests that the term is limited to a requirement for the installation of control technology. The commenters added that the risk-based compliance alternatives would meet this requirement because they would apply to an entire source category or subcategory. The EPA could create a subcategory for low-risk sources and tailor an emission standard to this subcategory, or apply to all sources in the category a NESHAP containing multiple compliance options, one or more being risk-based.

Multiple commenters stated that the plain meaning of CAA section 112(d)(4) does not allow EPA to make MACT standards for individual sources. Two commenters noted that section 112(d)(4) states that ''with respect to pollutants for which a health threshold has been established, the EPA Administrator may consider such threshold level, with ample margin of safety, when establishing emission standards under this subsection.''

Several commenters contended that EPA has misinterpreted the provision in CAA section 112(d)(4) in that section 112(d)(4) does not state that EPA can use applicability thresholds ''in lieu of'' the CAA section 112(d)(3) MACT floor requirements. The commenter interpreted section 112(d)(4) to state that health based thresholds can be considered when establishing the degree of the MACT floor requirements, but it should not be used to supplant the requirements established pursuant to section 112(d)(3).

Many commenters stated that the legislative history of CAA section 112(d)(4) clearly rejects EPA's proposed facility-by-facility MACT exemptions. The commenters noted that Congress considered and rejected the applicability cutoffs upon which EPA now solicits comment. The commenters noted that the House version of the 1990 Amendments allowed States to issue permits that exempted a source from compliance with MACT rules if the source presented sufficient evidence to demonstrate negligible risk, and the Senate version of the 1990 Amendments contained no such provision. In conference, Congress considered both the House and Senate versions and rejected the House bill's exemption for specific facilities in favor of the Senate bill's language.

Response: The EPA has properly exercised the authority granted to it pursuant to CAA section 112(d)(4) of the CAA in establishing health-based emission standards for HCl and manganese which are applicable to the large solid fuel-fired subcategory. Section 112(d)(4) authorizes it to by-pass the mandate in section 112(d)(3) in appropriate circumstances. Those circumstances are present in the large solid fuel-fired Boiler subcategories.

Section 112(d)(4) of the CAA provides EPA with authority, at its discretion, to develop health-based emission standards for HAP ''for which a health threshold has been established,'' provided that the standard reflects the health threshold ''with an ample margin of safety.'' (The full text of the section 112(d)(4): ''[with respect to pollutants for which a health threshold has been established, the Administrator may consider such threshold level, within an ample margin of safety, when establishing emission standards under this subsection.'')

Both the plain language of CAA section 112(d)(4) and the legislative history cited above indicate that EPA has the discretion under section 112(d)(4) to develop health-based standards for some source categories emitting threshold pollutants, and that those standards may be less stringent than the corresponding ''floor''-based MACT standard would be. The EPA's use of such standards is not limited to situations where every source in the category or subcategory can comply with them. As is the case with technology-based standards, a particular source's ability to comply with a health-based standard will depend on its individual circumstances, as will what it must do to achieve compliance.

In developing health-based emission standards under CAA section 112(d)(4), EPA seeks to assure that those standards ensure that the concentration of the particular HAP to which an individual exposed at the upper end of the exposure distribution is exposed does not exceed the health threshold. The upper end of the exposure distribution is calculated using the ''high end exposure estimate,'' defined as ''a plausible estimate of individual exposure for those persons at the upper end of the exposure distribution, conceptually above the 90th percentile, but not higher than the individual in the population who has the highest exposure'' (EPA Exposure Assessment Guidelines, 57 FR 22888, May 29, 1992). Assuring protection to persons at the upper end of the exposure distribution is consistent with the ''ample margin of safety'' requirement in section 112(d)(4).

We agree that section 112(d)(4) is appropriate for establishing emission standards for HCl and manganese applicable to the large solid fuel-fired subcategories, and, therefore, we have established such standards as an alternate compliance requirement for affected sources in those subcategories. Affected sources in the large solid fuel-fired subcategories which believe that

they can demonstrate compliance with one or both of the health-based emission standards may choose to comply with those standards in lieu of the otherwise applicable MACT-based standard.

For purposes of the final rule, we are not considering background HAP emissions in developing the section CAA 112(d)(4) compliance alternatives. As we indicated in the Residual Risk Report to Congress, however, the Agency intends to consider facility-wide HAP emissions in future CAA section 112(f) residual risk actions.

Comment: Many commenters contended that the proposal will place a very intensive resource demand on State and local agencies to review source's risk assessments, and State/local agencies may not have expertise in risk assessment methodology or the resources needed to verify information (*e.g.*, emissions data and stack parameters) submitted with each risk assessment.

Other commenters stated that a risk-based program can be structured and implemented in a manner that does not adversely impact limited State resources. One commenter asserted that EPA should work closely with States and industry to implement the risk-based approach in a non-burdensome manner. Another commenter stated that the risk-based approaches, like other MACT standards, would simply be incorporated into each State's existing title V program. The commenter concluded that because the title V framework already exists, the addition of a risk-based MACT standard would not require States to overhaul existing permitting programs. Another commenter contended that the final MACT rule itself should set forth the applicability criteria—including the threshold levels of exposure—that sources must meet to qualify for a risk-based determination. Each source would have the burden of demonstrating that its exposures are below this limit and, therefore, the States would not be required to develop their own risk assessment guidance or to conduct source-specific risk assessments.

Response: The health-based emission limits for HCl and TSM which EPA has adopted in the final rule should not impose significant resource burdens on States. Further, the required compliance demonstration methodology is structured in such a way as to avoid the need for States to have significant expertise in risk assessment methodology. We have considered the commenters' concerns in developing the criteria defining eligibility for these compliance alternatives, and the approach that is included in the final rule provides clear, flexible requirements and enforceable compliance parameters. The final rule provides two ways that a facility may demonstrate eligibility for complying with the alternative health-based emission standard. First, look-up tables, which are included as Tables 2 (HCl) and 3 (manganese) in appendix A of the final rule, allow facilities to determine, using a limited number of site-specific input parameters, whether emissions from their sources might cause a hazard index limit (hazard quotient in the case of manganese) to be exceeded. If a facility cannot demonstrate eligibility using a look-up table, a modeling approach can be followed. Appendix A to the final rule presents the criteria for performing this modeling.

Regarding commenters' concerns with looking for a threshold level for carcinogens, the compliance alternatives only apply to HCl and manganese, which are not currently expected to be carcinogens. Also, the concern expressed by a commenter about exempting a facility based on limited emission data if EPA established a subcategory listing low-risk sources is not relevant here, because we have not used CAA section 112(c)(9) authority to establish a low-risk subcategory for the Industrial/Commercial/Institutional Boilers and Process Heaters source category. With respect to guidance for performing site-specific modeling, all of the procedures for performing such modeling are available in peer-reviewed scientific literature and, therefore, no additional guidance needs to be developed.

Only a portion of the major facilities in the large solid fuel-fired boilers and process heaters subcategory will submit eligibility demonstrations for the compliance alternatives. Of this portion of major sources, most will be able to demonstrate eligibility based on simple analyses (*e.g.*, using the look-up tables provided in appendix A of the final rule). However, it is likely that some facilities will require more detailed modeling. The criteria for demonstrating eligibility for the compliance alternatives are clearly spelled out in the final rule. Because these requirements are clearly spelled out and because any standards or requirements created under CAA section 112 are considered applicable requirements under 40 CFR part 70, the compliance alternatives would be incorporated into title V programs, and States would not have to overhaul existing permitting programs.

Finally, with respect to the burden associated with ongoing assurance that facilities which opt to do so continue to comply with the health-based compliance alternatives, the burden to States will be minimal. In accordance with the provisions of title V of the CAA and part 70 of 40 CFR (collectively ''title V''), the owner or operator of any affected source opting to comply with the health-based emission standards will be required to certify compliance with those standards on an annual basis. Additionally, before changing key parameters that may impact an affected source's ability to continue to meet one or both of the health-based emission standards, the affected source is required to evaluate its ability to continue to comply with the health-based emission standard(s) and submit documentation to the permitting authority supporting continued eligibility for the compliance alternative.

The promulgation of specific alternative health-based emission limits and a uniform methodology for demonstrating compliance with those alternatives alleviates any concern regarding the public process required in reviewing/approving the proposed approaches and making substantial changes to existing regulations. It also addresses concerns regarding the costs and resources associated with assuring adequate public participation in the process of reviewing site-specific risk analyses.

To ensure that affected sources which choose to comply with the alternative health-based emission standards continue to comply with those standards after the initial compliance demonstration, specified assessment parameters (*e.g.*, HCl and/or manganese emission rate, boiler heat output, etc.) must be included in their title V permit as enforceable requirements. Draft permits and permit applications must be made available to the public from the State or local agency responsible for issuing the permit, or in the case where EPA is issuing the permit, from the EPA regional office. Members of the public may request that the State or local agency include them on their public notice mailing list, thus providing the public the opportunity to review the appropriateness of these requirements. Every proposed title V permit has a 30-day public comment period and a 45-day EPA review period. If EPA does not object to the permit, any member of the public may petition EPA to object to the permit within 60 days of the end of the EPA review period.

Comment: A commenter contended that exempting HCl emissions from control is inappropriate, particularly since EPA proposed HCl as a surrogate measure for all the inorganic HAP

emitted by this source category. Hence, an exemption that excluded HCl emission points from control requirements would also exclude emissions of all the other inorganic HAP that would likely include hydrogen cyanide and hydrogen fluoride.

Response: Facilities attempting to utilize the health-based compliance alternative for HCl will not be required to evaluate emissions of other inorganic HAP except for chlorine. We conducted an assessment of boiler emissions and determined that, of the acid gas HAP controlled by scrubbing technology, chlorine is responsible for the great majority of risk and HCl is responsible for the next largest portion of the total risk. The contributions of other HAP, including hydrogen fluoride, to the total risk were negligible. Therefore, facilities attempting to demonstrate eligibility for the health-based compliance alternative for HCl, either by conducting a lookup table analysis or by conducting a site-specific compliance demonstration, must include emission rates of chlorine and HCl from their boilers. We do not expect hydrogen cyanide emissions from boilers covered under the final rule.

Comment: Commenters stated that the proposal does not address ecological risk that may result from uncontrolled HAP emissions, especially in those areas with sensitive habitats but few people nearby to be exposed and that EPA provided inadequate discussion of how environmental risks will be evaluated.

Response: To identify HAP with potential to cause multimedia and/or environmental effects, the EPA has identified HAP with significant potential to persist in the environment and to bioaccumulate. This list does not include HCl or manganese which are the only HAP with health-based compliance alternatives in the final rule. Additionally, a screening level analysis conducted by the EPA indicates that acute impacts of these HAP from industrial boiler facilities are highly unlikely. For these reasons we do not believe that emissions of HCl or manganese from industrial boiler facilities will pose a significant risk to the environment and facilities attempting to comply with the health-based alternatives for these HAP are not required to perform an ecological assessment.

V. Impacts of the Final Rule

A. What Are the Air Impacts?

Nationwide emissions of selected HAP (*i.e.*, HCl, hydrogen fluoride, lead, and nickel) will be reduced by 58,500 tpy for existing units and 73 tpy for new units. Depending on the number of facilities demonstrating eligibility for the health-based compliance alternatives, the total HAP reduction for existing units could be 50,600 tpy. Emissions of HCl will be reduced by 42,000 tpy for existing units and 72 tpy for new units. Depending on the number of facilities demonstrating eligibility for the health-based compliance alternatives, the total HCl emissions reduction for existing units could be 36,400 tpy. Emissions of mercury will be reduced by 1.9 tpy for existing units and 0.006 tpy for new units. Emissions of PM will be reduced by 565,000 tpy for existing units and 480 tpy for new units. Depending on the number of facilities demonstrating eligibility for the health-based compliance alternatives, the total PM emissions reduction for existing units could be 547,000 tpy. Emissions of total selected nonmercury metals (*i.e.*, arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium) will be reduced by 1,100 tpy for existing units and will be reduced by 1.4 tpy for new units. Depending on the number of facilities demonstrating eligibility for the health-based compliance alternatives, the total nonmercury metals emissions reduction for existing units could be 950 tpy. In addition, emissions of sulfur dioxide (SO_2) are established to be reduced by 113,000 tpy for existing sources and 110 tpy for new sources. Depending on the number of facilities demonstrating eligibility for the health-based compliance alternatives, the total SO_2 emissions reduction for existing units could be 49,000 tpy.

As noted above, use of the health-based compliance alternatives by eligible facilities will affect reductions in HAP, PM (and total non-mercury metals that are generally controlled along with PM), and SO_2. Nevertheless, our analysis indicates that the difference in emissions of HCl and manganese with and without the compliance alternatives will not affect health risks because the compliance alternative is available only to those facilities that demonstrate that their emissions pose little risks. Emissions of PM and SO_2 will still be reduced by the implementation of other provisions of the Clean Air Act, such as attainment of the health-based National Ambient Air Quality Standards, which include mechanisms to control such emissions.

A discussion of the methodology used to estimate emissions and emissions reductions is presented in ''Estimation of Baseline Emissions and Emissions Reductions for Industrial, Commercial, and Institutional Boilers and Process Heaters'' in the docket. To estimate the potential impacts of the health-based compliance alternatives, we performed a preliminary ''rough'' assessment of the large solid fuel subcategory to determine the extent to which facilities might become eligible for the health-based compliance alternatives. Based on the results of this rough assessment, 448 coal-fired boilers could potentially be eligible for the HCl compliance alternative and 386 biomass-fired boilers could be potentially eligible for the TSM compliance alternative.

B. What Are the Water and Solid Waste Impacts?

The EPA estimates the additional water usage that would result from the MACT floor level of control to be 110 million gallons per year for existing sources and 0.6 million gallons per year for new sources. In addition to the increased water usage, an additional 3.7 million gallons per year of wastewater will be produced for existing sources and 0.6 million gallons per year for new sources. The costs of treating the additional wastewater are $18,000 for existing sources and $2,300 for new sources, in advance of any facility demonstrating eligibility for the health-based compliance alternatives. These costs are accounted for in the control costs estimates.

The EPA estimates the additional solid waste that would result from the MACT floor level of control to be 102,000 tpy for existing sources and 1 tpy for new sources. The estimated costs of handling the additional solid waste generated are $1.5 million for existing sources and $17,000 for new sources, in advance of any facility demonstrating eligibility for the health-based compliance alternatives. These costs are also accounted for in the control costs estimates.

A discussion of the methodology used to estimate impacts is presented in ''Estimation of Impacts for Industrial, Commercial, and Institutional Boilers and Process Heaters NESHAP'' in the docket.

C. What Are the Energy Impacts?

The EPA expects an increase of approximately 1,130 million kilowatt hours (kWh) in national annual energy usage as a result of the final rule, in advance of any facility demonstrating eligibility for the health-based compliance alternatives. Of this amount, 1,120 million kWh is estimated from existing sources and 13 million kWh is estimated from new sources. The increase results from the electricity required to operate control devices

installed to meet the final rule, such as wet scrubbers and fabric filters.

D. What Are the Control Costs?

To estimate the national cost impacts of the final rule for existing sources, EPA developed several model boilers and process heaters and determined the cost of control equipment for these model boilers. The EPA assigned a model boiler or heater to each existing unit in the database based on the fuel, size, design, and current controls. The analysis considered all air pollution control equipment currently in operation at existing boilers and process heaters. Model costs were then assigned to all existing units that could not otherwise meet the proposed emission limits. The resulting total national cost impact of the final rule is $1,790 million in capital expenditures and $860 million per year in total annual costs. Depending on the number of facilities demonstrating eligibility for the health-based compliance alternatives, these costs could be $1,440 million in capital expenditures and $690 million per year in total annual costs. The total capital and annual costs include costs for testing, monitoring, and recordkeeping and reporting. Costs include testing and monitoring costs, but not recordkeeping and reporting costs.

Using Department of Energy projections on fuel expenditures, EPA estimated the number of additional boilers that could be potentially constructed. The resulting total national cost impact of the final rule in the 5th year is $58 million in capital expenditures and $18.6 million per year in total annual costs, in advance of any facility demonstrating eligibility for the health-based provisions. Costs are mainly for testing and monitoring.

A discussion of the methodology used to estimate cost impacts is presented in ''Methodology for Estimating Control Cost for the Industrial, Commercial, and Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants'' in the docket.

E. What Are the Economic Impacts?

The economic impact analysis shows that the expected price increase for output in the 40 affected industries would be no more than 0.04 percent as a result of the final rule for industrial boilers and process heaters. The expected change in production of affected output is a reduction of only 0.03 percent or less in the same industries. In addition, impacts to affected energy markets show that prices of petroleum, natural gas, electricity and coal should increase by no more than 0.05 percent as a result of implementation of the final rule, and output of these types of energy should decrease by no more than 0.01 percent. These impacts are generated in advance of any facility demonstrating eligibility for the health-based compliance alternatives. Depending on the number of affected facilities demonstrating eligibility for the health-based compliance alternatives, these impacts on product prices could fall to a 0.03 percent increase, and a decrease in output of the energy types mentioned previously of less than 0.01 percent. Therefore, it is likely that there is no adverse impact expected to occur for those industries that produce output affected by the final rule, such as lumber and wood products, chemical manufacturers, petroleum refining, and furniture manufacturing.

F. What Are the Social Costs and Benefits of the Final Rule?

Our assessment of costs and benefits of the final rule is detailed in the ''Regulatory Impact Analysis for the Final Industrial, Commercial, and Institutional Boilers and Process Heaters MACT.'' The Regulatory Impact Analysis (RIA) is located in the Docket.

It is estimated that 3 years after implementation of the final rule, HAP will be reduced by 58,500 tpy (53,200 megagrams per year (Mg/yr)) due to reductions in arsenic, beryllium, HCl, and several other HAP from existing affected emission sources. Of these reductions, 42,000 tpy (38,200 Mg/yr) are of HCl. In addition to these reductions, there are 73 tpy (66 Mg/yr) of HAP reductions expected from new sources. Of these reductions, virtually all of them are of HCl. The health effects associated with these HAP are discussed earlier in this preamble. While it is beneficial to society to reduce these HAP, we are unable to quantify and provide a monetized estimate of the benefits at this time.

Despite our inability to quantify and provide monetized benefit estimates from HAP reductions, it is possible to derive rough estimates for one of the more important benefit categories, *i.e.*, the potential number of cancer cases avoided and cancer risk reduced as a result of the imposition of the MACT level of control on this source category. Our analysis suggests that imposition of the MACT level of control would reduce cancer cases at worst case baseline assumptions by possibly tens of cases per year, on average, starting some years after implementation of the final rule. This risk reduction estimate is uncertain, is likely to overestimate benefits, and should be regarded as an extremely rough estimate. Furthermore, the estimate should be viewed in the context of the full spectrum of unquantified noncancer effects associated with the HAP reductions. Noncancer effects associated with the HAP are presented earlier in this preamble.

The control technologies used to reduce the level of HAP emitted from affected sources are also expected to reduce emissions of PM (PM_{10}, $PM_{2.5}$), and sulfur dioxide (SO_2). It is estimated that PM_{10} emissions reductions total approximately 562,000 tpy (510,000 Mg/yr), $PM_{2.5}$ emissions reductions total approximately 159,000 tpy (145,000 Mg/yr), and SO_2 emissions reductions total approximately 113,000 tpy (102,670 Mg/yr). These estimated reductions occur from existing sources in operation 3 years after the implementation of the requirements of the final rule and are expected to continue throughout the life of the sources.

In general, exposure to high concentrations of PM may aggravate existing respiratory and cardiovascular disease including asthma, bronchitis and emphysema, especially in children and the elderly. SO_2 is also a contributor to acid deposition, or acid rain, which causes acidification of lakes and streams and can damage trees, crops, historic buildings and statues. Exposure to $PM_{2.5}$ can lead to decreased lung function, and alterations in lung tissue and structure and in respiratory tract defense mechanisms which may then lead to, increased respiratory symptoms and disease, or in more severe cases, premature death or increased hospital admissions and emergency room visits. Children, the elderly, and people with cardiopulmonary disease, such as asthma, are most at risk from these health effects. Fine PM can also form a haze that reduces the visibility of scenic areas, can cause acidification of water bodies, and have other impacts on soil, plants, and materials. As SO_2 emissions transform into PM, they can lead to the same health and welfare effects listed above.

For PM_{10} and $PM_{2.5}$ (including SO_2 contributions to ambient concentrations of $PM_{2.5}$), we provide a monetary estimate for the benefits associated with the reduction in emissions associated with the final rule. To do so, we conducted an air quality assessment to determine the change in ambient concentrations of PM_{10} and $PM_{2.5}$ that result from reductions of PM and SO_2 at existing affected facilities. Unfortunately, our data are not able to define the exact location of the reductions for every affected boiler and process heater. Because of this

limitation, the benefits assessment is conducted in two phases. First, an air quality analysis was conducted for emissions reductions from those emissions sources that have an known link to a specific control device, which represents approximately 50 percent of the total emissions reductions mentioned above. Using this subset of information, we determined the air quality change nationwide. The results of the air quality assessment served as input to a model that estimates the total monetary value of benefits of the health effects listed above. Total benefits associated with this portion of the analysis (in phase one) are $8.2 billion in the year 2005 (presented in 1999 dollars).

In the second phase of our analysis, for those emissions reductions from affected sources that do not have a known link to a specific control device, the results of the air quality analysis in phase one serve as a reasonable approximation of air quality changes to transfer to the remaining emissions reductions of the final rule. Because there is not a reasonable way to apportion the total benefits of the combined impact of the PM and SO_2 reductions from the air quality and benefit analyses completed above, we performed two additional air quality analyses. One analysis was performed to evaluate the impact on air quality of the PM reductions alone (holding SO_2 unchanged), and one to evaluate the impact on air quality from the SO_2 reductions alone (holding PM unchanged). With independent PM and SO_2 air quality assessments, we can determine the total benefit associated with each component of total pollutant reductions. The total benefit associated with the PM and SO_2 reductions with unspecified location (in phase two) are $7.9 billion.

The benefit estimates derived from the air quality modeling in the first phase of our analysis uses an analytical structure and sequence similar to that used in the benefits analyses for the proposed Nonroad Diesel rule and proposed Integrated Air Quality Rule (IAQR) and in the ''section 812 studies'' analysis of the total benefits and costs of the Clean Air Act. We used many of the same models and assumptions used in the Nonroad Diesel and IAQR analyses as well as other Regulatory Impact Analyses (RIAs) prepared by the Office of Air and Radiation. By adopting the major design elements, models, and assumptions developed for the section 812 studies and other RIAs, we have largely relied on methods which have already received extensive review by the independent Science Advisory Board (SAB), the National Academies of Sciences, by the public, and by other federal agencies.

The benefits transfer method used in the second phase of the analysis is similar to that used to estimate benefits at the proposal of the rule, and in the proposed Reciprocating Internal Combustion Engines NESHAP. A similar method has also been used in recent benefits analyses for the proposed Nonroad Large Spark-Ignition Engines and Recreational Engines standards (67 FR 68241, November 8, 2002).

The sum of benefits from the two phases of analysis provide an estimate of the total benefits of the rule. Total benefits of the final rule are approximately $16.3 billion (1999$). This economic benefit is associated with approximately 2,270 avoided premature mortalities, 5,100 avoided cases of chronic bronchitis, thousands of avoided hospital and emergency room visits for respiratory and cardiovascular diseases, tens of thousands of avoided days with respiratory symptoms, and millions of avoided work loss and restricted activity days. This estimate is generated in advance of any facility demonstrating eligibility for the health-based compliance alternatives.

Every benefit-cost analysis examining the potential effects of a change in environmental protection requirements is limited, to some extent, by data gaps, limitations in model capabilities (such as geographic coverage), and uncertainties in the underlying scientific and economic studies used to configure the benefit and cost models. Deficiencies in the scientific literature often result in the inability to estimate changes in health and environmental effects. Deficiencies in the economics literature often result in the inability to assign economic values even to those health and environmental outcomes that can be quantified. While these general uncertainties in the underlying scientific and economics literatures are discussed in detail in the RIA and its supporting documents and references, the key uncertainties which have a bearing on the results of the benefit-cost analysis of today's action are the following:

1. The exclusion of potentially significant benefit categories (*e.g.*, health and ecological benefits of reduction in hazardous air pollutants emissions);
2. Errors in measurement and projection for variables such as population growth;
3. Uncertainties in the estimation of future year emissions inventories and air quality;
4. Uncertainties associated with the extrapolation of air quality monitoring data to some unmonitored areas required to better capture the effects of the standards on the affected population;
5. Variability in the estimated relationships of health and welfare effects to changes in pollutant concentrations; and
6. Uncertainties associated with the benefit transfer approach.
7. Uncertainties in the size of the effect estimates linking air pollution and health endpoints.
8. Uncertainties about relative toxicity of different components within the complex mixture.

Despite these uncertainties, we believe the benefit-cost analysis provides a reasonable indication of the expected economic benefits of the final rule under a given set of assumptions.

Based on estimated compliance costs (control + administrative costs associated with Paperwork Reduction Act requirements associated with the rule and predicted changes in the price and output of electricity), the estimated annualized social costs of the Industrial, Commercial, and Institutional Boilers and Process Heaters NESHAP are $863 million (1999$). Depending on the number of affected facilities demonstrating eligibility for the health-based compliance alternatives, these annualized social costs could fall to $746 million. Social costs are different from compliance costs in that social costs take into account the interactions between affected producers and the consumers of affected products in response to the imposition of the compliance costs.

As explained above, we estimate $16.3 billion in benefits from the final rule, compared to $863 million in costs. It is important to put the results of this analysis in the proper context. The large benefit estimate is not attributable to reducing human and environmental exposure to the HAPs that are reduced by this rule. It arises from ancillary reductions in PM and SO_2 that result from controls aimed at complying with the NESHAP. Although consideration of ancillary benefits is reasonable, we note that these benefits are not uniquely attributable to the regulation. The Agency believes nonetheless that the key rationale for controlling arsenic, beryllium, HCl, and the other HAPs associated with this rule is to reduce public and environmental exposure to these HAPs, thereby reducing risk to public health and wildlife. Although the available science does not support quantification of these benefits at this time, the Agency believes the qualitative

benefits are large enough to justify substantial investment in these emission reductions.

It should be recognized, however, that this analysis does not account for many of the potential benefits that may result from these actions. Thus, our estimate of total benefits also includes a ''B'' to represent those additional health and environmental benefits which could not be expressed in quantitative incidence and/or economic value terms. The net benefits would be greater if all the benefits of the other pollutant reductions could be quantified. Notable omissions to the net benefits include all benefits of HAP reductions, including reduced cancer incidences, toxic morbidity effects, and cardiovascular and CNS effects, and all welfare effects from reduction of ambient PM and SO_2. A full appreciation of the overall economic consequences of the industrial boiler and process heater standards requires consideration of all benefits and costs expected to result from the final rule, not just those benefits and costs that could be expressed here in dollar terms. A full listing of the benefit categories that could not be quantified or monetized in our base estimate are provided in Table 2 of this preamble.

TABLE 2.—UNQUANTIFIED BENEFIT CATEGORIES

	Unquantified benefit categories associated with HAP eductions	Unquantified benefit categories associated with PM eductions
Health Categories	—Airway responsiveness —Pulmonary inflammation —Susceptibility to respiratory infection —Acute inflammation and respiratory cell damage —Chronic respiratory damage/Premature aging of lungs —Emergency room visits for asthma	—Changes in pulmonary function. —Morphological changes. Altered host defense mechanisms. —Other chronic respiratory disease. —Emergency room visits for asthma. —Emergency visits for non-asthma respiratory and cardiovascular causes. —Lower and upper respiratory systems. —Acute bronchitis. —Shortness of breath.
Welfare Categories	—Ecosystem and vegetation effects —Damage to urban ornamentals (e.g., grass, flowers, shrubs, and trees in urban areas). —Commercial field crops —Fruit and vegetable crops —Yields of tree seedlings, commercial and non-commercial forests. —Damage to ecosystems —Materials damage	—School absence rates. —Materials damage. —Damage to ecosystems (e.g., acid sulfate deposition). —Nitrates in drinking water. —Visibility in recreational and residential areas.

Using the results of the benefit analysis, we can use benefit-cost comparison (or net benefits) as another tool to evaluate the reallocation of society's resources needed to address the pollution externality created by the operation of industrial boilers and process heaters. The additional costs of internalizing the pollution produced at major sources of emissions from industrial boilers and process heaters are compared to the improvement in society's well-being from a cleaner and healthier environment. Comparing benefits of the final rule to the costs imposed by alternative ways to control emissions optimally identifies a strategy that results in the highest net benefit to society. In the final rule, we include only one option, the minimal level of control mandated by the CAA, or the MACT floor. Other alternatives that lead to higher levels of control (or beyond-the-floor alternatives) lead to higher estimates of benefits net of costs, but also lead to additional economic impacts, including more substantial impacts to small entities. For more details, please refer to the RIA for the final rule.

Based on estimated compliance costs associated with the final rule and the predicted change in prices and production in the affected industries, the estimated annualized social costs of the final rule are $863 million (1999 dollars). This estimate of social cost is generated in advance of any facility demonstrating eligibility for the health-based compliance alternatives. Depending on the number of affected facilities demonstrating eligibility for the health-based compliance alternatives, these annualized social costs could fall to $746 million. Social costs are different from compliance costs in that social costs take into account the interactions of consumers and producers of affected products in response to the imposition of the compliance costs. Therefore, the Agency's estimate of monetized benefits net of costs is $15.4 billion + B (1999 dollars) in 2005.

VI. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

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

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

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

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

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

Pursuant to the terms of Executive Order 12866, the EPA has determined that the final rule is a ''significant regulatory action'' because it has an annual effect on the economy of over $100 million. As such, the final rule was submitted to OMB for review.

B. Paperwork Reduction Act

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

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

The final rule requires maintenance inspections of the control devices, but does not require any notifications or reports beyond those required by the General Provisions. The recordkeeping requirements require only the specific information needed to determine compliance.

The annual monitoring, reporting, and recordkeeping burden for this collection (averaged over the first 3 years after the effective date of the final rule) is estimated to be $91 million. This includes 1.2 million labor hours per year at a total labor cost of $67 million per year, and total non-labor capital costs of $24 million per year. This estimate includes a one-time performance test, semiannual excess emission reports, maintenance inspections, notifications, and recordkeeping. The total burden for the Federal government (averaged over the first 3 years after the effective date of the final rule) is estimated to be 346,000 hours per year at a total labor cost of $14 million per year. Table 3 of this preamble shows the average annualized burden for monitoring, reporting, and recordkeeping for each subcategory.

TABLE 3.—SUMMARY OF THE AVERAGE REPORTING AND RECORDKEEPING COSTS

Subcategory	Total labor costs ($)	Total capital costs ($)	Total costs ($)
Large Solid Fuel Units	56,253,000	12,488,000	68,741,000
Limited Use Solid Fuel Units	2,565,000	2,267,000	4,832,000
Small Solid Fuel Units	627,000	111,000	738,000
Large Liquid Fuel Units	498,000	491,000	989,000
Limited Use Liquid Fuel Units	214,000	264,000	478,000
Small Liquid Fuel Units	442,000	0	442,000
Large Gaseous Fuel Units	3,673,000	6,615,000	10,288,000
Limited Use Gaseous Fuel Units	663,000	1,209,000	1,872,000
Small Gaseous Fuel Units	2,413,000	0	2,413,000

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

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

The EPA requested comments on the need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques.

C. Regulatory Flexibility Act

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the final rule. We have also determined that the final rule will not have a significant impact on a substantial number of small entities.

For purposes of assessing the impacts of the final rule on small entities, small entity is defined as:

(1) A small business according to Small Business Administration size standards by the North American Industry Classification System (NAICS) category of the owning entity. The range of small business size standards for the 40 affected industries ranges from 500 to 1,000 employees, except for petroleum refining and electric utilities. In these latter two industries, the size standard is 1,500 employees and a mass throughput of 75,000 barrels/day or less, and 4 million kilowatt-hours of production or less, respectively;

(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 that is independently owned and operated and is not dominant in its field.

After considering the economic impact of the final rule on small entities, we have determined that the final rule will not have a significant economic impact on a substantial number of small entities. Based on SBA size definitions for the affected industries and reported sales and employment data, EPA identified 185 of the 576 entities, or 32 percent, owning affected facilities as small entities. Although small entities represent 32 percent of the entities within the source category, they are expected to incur only 4 percent of the total compliance costs of $862.7 million (1998 dollars). There are only ten small entities with compliance costs equal to or greater than 3 percent of their sales. In addition, there are only 24 small entities with cost-to-sales ratios between 1 and 3 percent.

An economic impact analysis was performed to estimate the changes in product price and production quantities for the final rule. As mentioned in the summary of economic impacts earlier in this preamble, the estimated changes in prices and output for affected entities is no more than 0.05 percent. For more information, consult the docket for the final rule.

It should be noted that these small entity impacts are in advance of any facility demonstrating eligibility for the health-based compliance alternatives. Depending on the number of affected facilities demonstrating eligibility for the health-based compliance alternatives, the estimated small entity impacts could fall to eight small entities with compliance costs equal to or greater than 3 percent of their sales, and 14 small entities with compliance costs between 1 and 3 percent of their sales.

The final rule will not have a significant economic impact on a substantial number of small entities as a result of several decisions EPA made regarding the development of the rule, which resulted in limiting the impact of the rule on small entities. First, as mentioned earlier in this preamble, EPA identified small units (heat input of 10 MMBtu/hr or less) and limited use boilers (operate less than 10 percent of the time) as separate subcategories different from large units. Many small and limited use units are located at small entities. As also discussed earlier, the results of the MACT floor analysis for these subcategories of existing sources was that no MACT floor could be identified except for the limited use solid fuel subcategory, which is less stringent than the MACT floor for large units. Furthermore, the results of the beyond-the-floor analysis for these subcategories indicated that the costs would be too high to consider them feasible options. Consequently, the final rule contains no emission limitations for any of the existing small and limited use subcategories except the existing limited use solid fuel subcategory. In addition, the alternative metals emission limit resulted in minimizing the impacts on small entities since some of the potential entities burning a fuel containing very little metals are small entities.

D. Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, we generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any 1 year. Before promulgating a rule for which a written statement is needed, section 205 of the UMRA generally requires us to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows us to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the EPA Administrator publishes with the final rule an explanation why that alternative was not adopted. Before we establish any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, we must develop a small government agency plan under section 203 of the UMRA. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of regulatory promulgation with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

We determined that the final rule contains a Federal mandate that may result in expenditures of $100 million or more for State, local, and Tribal governments, in the aggregate, or the private sector in any 1 year. Accordingly, we have prepared a written statement (titled ''Unfunded Mandates Reform Act Analysis for the Industrial Boilers and Process Heaters NESHAP)'' under section 202 of the UMRA, which is summarized below.

Statutory Authority

As discussed in this preamble, the statutory authority for the final rulemaking is section 112 of the CAA. Title III of the CAA Amendments was enacted to reduce nationwide air toxic emissions. Section 112(b) of the CAA lists the 188 chemicals, compounds, or groups of chemicals deemed by Congress to be HAP. These toxic air pollutants are to be regulated by NESHAP.

Section 112(d) of the CAA directs us to develop NESHAP, which require existing and new major sources to control emissions of HAP using MACT based standards. The final rule applies to all industrial, commercial, and institutional boilers and process heaters located at major sources of HAP emissions.

In compliance with section 205(a) of the UMRA, we identified and considered a reasonable number of regulatory alternatives. Additional information on the costs and environmental impacts of these regulatory alternatives is presented in the docket.

The regulatory alternative upon which the final rule is based represents the MACT floor for industrial boilers and process heaters and, as a result, it is the least costly and least burdensome alternative.

Social Costs and Benefits

The regulatory impact analysis prepared for the final rule including the EPA's assessment of costs and benefits, is detailed in the ''Regulatory Impact Analysis for the Industrial Boilers and Process Heaters MACT'' in the docket. Based on estimated compliance costs associated with the final rule and the predicted change in prices and production in the affected industries, the estimated social costs of the final rule are $863 million (1999 dollars). Depending on the number of affected facilities demonstrating eligibility for the health-based compliance alternatives, these annualized social costs could fall to $746 million.

It is estimated that 5 years after implementation of the final rule, HAP will be reduced by 58,500 tpy due to reductions in arsenic, beryllium, dioxin, hydrochloric acid, and several other HAP from industrial boilers and process heaters. Studies have determined a relationship between exposure to these HAP and the onset of cancer, however, there are some questions remaining on how cancers that may result from exposure to these HAP can be quantified in terms of dollars. Therefore, the EPA is unable to provide a monetized estimate of the benefits of the HAP reduced by the final rule at this time. However, there are significant reductions in PM and in SO_2 that occur. Reductions of 560,000 tons of PM with a diameter of less than or equal to 10 micrometers (PM_{10}), 159,000 tons of PM with a diameter of less than or equal to 2.5 micrometers ($PM_{2.5}$), and 112,000 tons of SO_2 are expected to occur. These reductions occur from existing sources in operation 5 years after the implementation of the regulation and are expected to continue throughout the life of the affected sources. The major health effect that results from these PM

and SO_2 emissions reductions is a reduction in premature mortality. Other health effects that occur are reductions in chronic bronchitis, asthma attacks, and work-lost days (*i.e.*, days when employees are unable to work).

While we are unable to monetize the benefits associated with the HAP emissions reductions, we are able to monetize the benefits associated with the PM and SO_2 emissions reductions. For SO_2 and PM, we estimated the benefits associated with health effects of PM, but were unable to quantify all categories of benefits (particularly those associated with ecosystem and environmental effects). Unquantified benefits are noted with ''B'' in the estimates presented below. Our primary estimate of the monetized benefits in 2005 associated with the implementation of the proposed alternative is $16.3 billion + B (1999 dollars). This estimate is about $15.3 billion + B (1999 dollars) higher than the estimated social costs shown earlier in this section. These benefit estimates are in advance of any facility demonstrating eligibility for the health-based compliance alternatives. Depending on the number of affected facilities demonstrating eligibility for the health-based compliance alternatives, the benefit estimate presuming the health-based compliance alternatives is $14.5 billion + B, which is $1.7 billion lower than the estimate for the final rule. This estimate is $13.8 billion + B higher than the estimated social costs presuming the health-based compliance alternatives. The general approach to calculating monetized benefits is discussed in more detail earlier in this preamble. For more detailed information on the benefits estimated for the final rule, refer to the RIA in the docket.

Future and Disproportionate Costs

The Unfunded Mandates Act requires that we estimate, where accurate estimation is reasonably feasible, future compliance costs imposed by the rule and any disproportionate budgetary effects. Our estimates of the future compliance costs of the final rule are discussed previously in this preamble.

We do not feel that there will be any disproportionate budgetary effects of the final rule on any particular areas of the country, State or local governments, types of communities (*e.g.,* urban, rural), or particular industry segments. This is true for the 257 facilities owned by 54 different government bodies, and this is borne out by the results of the ''Economic Impact Analysis of the Industrial Boilers and Process Heaters NESHAP,'' the results of which are discussed previously in this preamble.

Effects on the National Economy

The Unfunded Mandates Act requires that we estimate the effect of the final rule on the national economy. To the extent feasible, we must estimate the effect on productivity, economic growth, full employment, creation of productive jobs, and international competitiveness of the U.S. goods and services, if we determine that accurate estimates are reasonably feasible and that such effect is relevant and material.

The nationwide economic impact of the final rule is presented in the ''Economic Impact Analysis for the Industrial Boilers and Process Heaters MACT'' in the docket. This analysis provides estimates of the effect of the final rule on some of the categories mentioned above. The results of the economic impact analysis are summarized previously in this preamble. The results show that there will be little impact on prices and output from the affected industries, and little impact on communities that may be affected by the final rule. In addition, there should be little impact on energy markets (in this case, coal, natural gas, petroleum products, and electricity). Hence, the potential impacts on the categories mentioned above should be minimal.

Consultation With Government Officials

The Unfunded Mandates Act requires that we describe the extent of the EPA's prior consultation with affected State, local, and tribal officials, summarize the officials' comments or concerns, and summarize our response to those comments or concerns. In addition, section 203 of the UMRA requires that we develop a plan for informing and advising small governments that may be significantly or uniquely impacted by a rule. Although the final rule does not significantly affect any State, local, or Tribal governments, we have consulted with State and local air pollution control officials. We also have held meetings on the final rule with many of the stakeholders from numerous individual companies, environmental groups, consultants and vendors, labor unions, and other interested parties. We have added materials to the docket to document these meetings.

In addition, we have determined that the final rule contains no regulatory requirements that might significantly or uniquely affect small governments. While some small governments may have some sources affected by the final rule, the impacts are not expected to be significant. Therefore, the final rule is not subject to the requirements of section 203 of the UMRA. However, EPA did complete a report containing analyses called for in the UMRA as a response to comments from many municipal utilities regarding the final rule and its potential impacts. This report, ''Unfunded Mandates Reform Act Analysis for the Industrial Boilers and Process Heaters NESHAP,'' is in the docket.

E. Executive Order 13132: Federalism

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

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

The agency is required by section 112 of the CAA, to establish the standards in the final rule. The final rule primarily affects private industry, and does not impose significant economic costs on State or local governments. The final rule does not include an express provision preempting State or local regulations. Thus, the requirements of section 6 of the Executive Order do not apply to the final rule.

Although section 6 of Executive Order 13132 does not apply to the final rule, we consulted with representatives of State and local governments to enable them to provide meaningful and timely input into the development of the final rule. This consultation took place during the ICCR Federal Advisory Committee Act (FACA) committee meetings where members representing State and local governments participated in developing recommendations for EPA's combustion-related rulemakings, including the final rule. The concerns raised by representatives of State and local governments were considered during the development of the final rule.

In the spirit of Executive Order 13132, and consistent with EPA policy to

promote communications between EPA and State and local governments, EPA specifically solicited comment on the final rule from State and local officials.

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

Executive Order 13175 (65 FR 67249, November 9, 2000) requires EPA to develop an accountable process to ensure ''meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.'' The final rule does not have tribal implications, as specified in Executive Order 13175.

The final rule does not significantly or uniquely affect the communities of Indian tribal governments. We do not know of any industrial-commercial-institutional boilers or process heaters owned or operated by Indian tribal governments. However, if there are any, the effect of these rules on communities of tribal governments would not be unique or disproportionate to the effect on other communities. Thus, Executive Order 13175 does not apply to the final rule. The EPA specifically solicited additional comment on the final rule from tribal officials, but received none.

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

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any regulation that: (1) Is determined to be ''economically significant'' as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that we have reason to believe may have a disproportionate effect on children.

If the regulatory action meets both criteria, the EPA must evaluate the environmental health or safety effects of the planned regulation on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the EPA.

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The final rule is not subject to Executive Order 13045 because it is based on technology performance and not on health or safety risks.

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

Executive Order 13211 (66 FR 28355, May 22, 2001) provides that agencies shall prepare and submit to the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, a Statement of Energy Effects for certain actions identified as ''significant energy actions.'' Section 4(b) of Executive Order 13211 defines ''significant energy actions'' as ''any action by an agency (normally published in the **Federal Register**) that promulgates or is expected to lead to the promulgation of a final rule or regulation, including notices of inquiry, advance notices of final rulemaking, and notices of final rulemaking: (1)(i) That is a significant regulatory action under Executive Order 12866 or any successor order, and (ii) is likely to have a significant adverse effect on the supply, distribution, or use of energy; or (2) that is designated by the Administrator of the Office of Information and Regulatory Affairs as a ''significant energy action.'' The final rule is not a ''significant energy action'' because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. The basis for the determination is as follows.

The reduction in petroleum product output, which includes reductions in fuel production, is estimated at only 0.001 percent, or about 68 barrels per day based on 2000 U.S. fuel production nationwide. That is a minimal reduction in nationwide petroleum product output. The reduction in coal production is estimated at only 0.014 percent, or about 3.5 million tpy (or less than 1,000 tons per day) based on 2000 U.S. coal production nationwide. The combination of the increase in electricity usage estimated with the effect of the increased price of affected output yields an increase in electricity output estimated at only 0.012 percent, or about 0.72 billion kilowatt-hours per year based on 2000 U.S. electricity production nationwide. All energy price changes estimated show no increase in price more than 0.05 percent nationwide, and a similar result occurs for energy distribution costs. We also expect that there will be no discernable impact on the import of foreign energy supplies, and no other adverse outcomes are expected to occur with regards to energy supplies. All of the results presented above account for the pass through of costs to consumers, as well as the cost impact to producers. For more information on the estimated energy effects, please refer to the economic impact analysis for the final rule. The analysis is available in the public docket. It should be noted that these energy impact estimates are in advance of any facility demonstrating eligibility for the health-based compliance alternatives.

Depending on the number of affected facilities demonstrating eligibility for the health-based compliance alternatives, the reduction in petroleum product output, which includes reductions in fuel production, could fall to 65 barrels per day, or only 0.001 percent. The reduction in coal production could fall to only 0.010 percent, or about 2.5 million tpy based on 2000 U.S. coal production nationwide. The combination of the increase in electricity usage estimated with the effect of the increased price of affected output could yield an increase in electricity output could fall to only 0.0067 percent, or about 0.40 billion kilowatt-hours per year based on 2000 U.S. electricity production nationwide. All energy price changes estimated could now fall to increases of no more than 0.04 percent nationwide, and a similar result occurs for energy distribution costs. There should be no discernable impact on import of foreign energy supplies, and no other adverse outcomes are expected to occur with regards to energy supplies. All of the results presented with presumption of the health-based compliance alternatives also account for the pass through of costs to consumers as well as the cost impact to producers.

Therefore, we conclude that the final rule when implemented is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Pub. L. 104–113; 15 U.S.C. 272 note) directs the EPA to use voluntary consensus standards in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to the OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

The final rule involves technical standards. The EPA cites the following standards in the final rule: EPA Methods 1, 2, 2F, 2G, 3A, 3B, 4, 5, 5D, 17, 19, 26, 26A, 29 of 40 CFR part 60. Consistent with the NTTAA, EPA conducted searches to identify voluntary consensus standards in addition to these EPA methods. No applicable voluntary consensus standards were identified for EPA Methods 2F, 2G, 5D, and 19. The search and review results have been documented and are placed in the docket for the final rule.

The three voluntary consensus standards described below were identified as acceptable alternatives to EPA test methods for the purposes of the final rule.

The voluntary consensus standard ASME PTC 19–10–1981–Part 10, ''Flue and Exhaust Gas Analyses,'' is cited in the final rule for its manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas. This part of ASME PTC 19–10–1981–Part 10 is an acceptable alternative to Method 3B.

The voluntary consensus standard ASTM D6522–00, ''Standard Test Method for the Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers and Process Heaters Using Portable Analyzers'' is an acceptable alternative to EPA Methods 3A and 10 for identifying carbon monoxide and oxygen concentrations for the final rule when the fuel is natural gas.

The voluntary consensus standard ASTM Z65907, ''Standard Method for Both Speciated and Elemental Mercury Determination,'' is an acceptable alternative to EPA Method 29 (portion for mercury only) for the purpose of the final rule. This standard can be used in the final rule to determine the mercury concentration in stack gases for boilers with rated heat input capacities of greater than 250 MMBtu per hour.

In addition to the voluntary consensus standards EPA uses in the final rule, the search for emissions measurement procedures identified 15 other voluntary consensus standards. The EPA determined that 13 of these 15 standards identified for measuring emissions of the HAP or surrogates subject to the emission standards were impractical alternatives to EPA test methods for the purposes of the final rule. Therefore, EPA does not intend to adopt these standards for this purpose. (See Docket ID No. OAR–2002–0058 for further information on the methods.)

Two of the 15 voluntary consensus standards identified in this search were not available at the time the review was conducted for the purposes of the final rule because they are under development by a voluntary consensus body: ASME/BSR MFC 13M, ''Flow Measurement by Velocity Traverse,'' for EPA Method 2 (and possibly 1); and ASME/BSR MFC 12M, ''Flow in Closed Conduits Using Multiport Averaging Pitot Primary Flowmeters,'' for EPA Method 2.

Section 63.7520 and Tables 4A through 4D of the final rule list the EPA testing methods. Under § 63.7(f) and § 63.8(f) of subpart A, 40 CFR part 63, of the General Provisions, a source may apply to EPA for permission to use alternative test methods or alternative monitoring requirements in place of any of the EPA testing methods, performance specifications, or procedures.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801, *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing the final rule and other required information to the United States Senate, the United States House of Representatives, and the Comptroller General of the United States prior to publication of the final rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is a ''major rule'' as defined by 5 U.S.C. section 804(2). The rule will be effective on November 12, 2004.

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: February 26, 2004.

Michael O. Leavitt,

Administrator.

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

PART 63—[AMENDED]

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

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

Subpart A—[Amended]

■ 2. Section 63.14 is amended by revising paragraph (b)(27) and paragraph (i)(3) and adding paragraph (b)(35) and paragraphs (b)(39) through (53) to read as follows:

§ 63.14 Incorporations by reference.

* * * * *

(b) * * *

(27) ASTM D6522–00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers,[1] IBR approved for § 63.9307(c)(2), Table 4 of Subpart ZZZZ, and Table 5 to Subpart DDDDD of this part.

* * * * *

(35) ASTM D6784–02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method),[1] IBR approved for Table 5 to Subpart DDDDD of this part.

* * * * *

(39) ASTM Method D388–99,$^{\epsilon 1}$ Standard Classification of Coals by Rank,[1] IBR approved for § 63.7575.

(40) ASTM D396–02a, Standard Specification for Fuel Oils,[1] IBR approved for § 63.7575.

(41) ASTM D1835–03a, Standard Specification for Liquified Petroleum (LP) Gases,[1] IBR approved for § 63.7575.

(42) ASTM D2013–01, Standard Practice for Preparing Coal Samples for Analysis,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(43) ASTM D2234–00, $^{\epsilon 1}$ Standard Practice for Collection of a Gross Sample of Coal,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(44) ASTM D3173–02, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(45) ASTM D3683–94 (Reapproved 2000), Standard Test Method for Trace Elements in Coal and Coke Ash Absorption,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(46) ASTM D3684–01, Standard Test Method for Total Mercury in Coal by the Oxygen Bomb Combustion/Atomic Absorption Method,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(47) ASTM D5198–92 (Reapproved 2003), Standard Practice for Nitric Acid Digestion of Solid Waste,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(48) ASTM D5865–03a, Standard Test Method for Gross Calorific Value of Coal and Coke,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(49) ASTM D6323–98 (Reapproved 2003), Standard Guide for Laboratory Subsampling of Media Related to Waste Management Activities,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(50) ASTM E711–87 (Reapproved 1996), Standard Test Method for Gross Calorific Value of Refuse-Derived Fuel by the Bomb Calorimeter,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(51) ASTM E776–87 (Reapproved 1996), Standard Test Method for Forms of Chlorine in Refuse-Derived Fuel,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(52) ASTM E871–82 (Reapproved 1998), Standard Method of Moisture Analysis of Particulate Wood Fuels,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(53) ASTM E885–88 (Reapproved 1996), Standard Test Methods for Analyses of Metals in Refuse-Derived Fuel by Atomic Absorption Spectroscopy,[1] IBR approved for Table 6 to Subpart DDDDD of this part 63.

* * * * *

(i) * * *

(3) ANSI/ASME PTC 19.10–1981, ''Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus],'' IBR approved for §§ 63.865(b), 63.3166(a), 63.3360(e)(1)(iii), 63.3545(a)(3), 63.3555(a)(3), 63.4166(a)(3), 63.4362(a)(3), 63.4766(a)(3), 63.4965(a)(3), 63.5160(d)(1)(iii), 63.9307(c)(2), 63.9323(a)(3), and Table 5 to Subpart DDDDD of this part.

* * * * *

■ 3. Part 63 is amended by adding subpart DDDDD to read as follows:

Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

Sec.

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63.7480 What is the purpose of this subpart?
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63.7490 What is the affected source of this subpart?
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Emission Limits and Work Practice Standards

63.7499 What are the subcategories of boilers and process heaters?
63.7500 What emission limits, work practice standards, and operating limits must I meet?

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Testing, Fuel Analyses, and Initial Compliance Requirements

63.7510 What are my initial compliance requirements and by what date must I conduct them?
63.7515 When must I conduct subsequent performance tests or fuel analyses?
63.7520 What performance tests and procedures must I use?
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63.7522 Can I use emission averaging to comply with this subpart?
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63.7550 What reports must I submit and when?
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63.7560 In what form and how long must I keep my records?

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63.7565 What parts of the General Provisions apply to me?
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Table 4 to Subpart DDDDD of Part 63—Operating Limits for Boilers and Process Heaters With Hydrogen Chloride Emission Limits
Table 5 to Subpart DDDDD of Part 63—Performance Testing Requirements
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Appendix

Appendix A to Subpart DDDDD—Methodology and Criteria for Demonstrating Eligibility for the Health-Based Compliance Alternatives Specified for the Large Solid Fuel Subcategory

Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

What This Subpart Covers

§ 63.7480 What is the purpose of this subpart?

This subpart establishes national emission limits and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limits and work practice standards.

§ 63.7485 Am I subject to this subpart?

You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler or process heater as defined in § 63.7575 that is located at, or is part of, a major source of HAP as defined in § 63.2 or § 63.761 (40 CFR part 63, subpart HH, National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities), except as specified in § 63.7491.

§ 63.7490 What is the affected source of this subpart?

(a) This subpart applies to new, reconstructed, or existing affected sources as described in paragraphs (a)(1) and (2) of this section.

(1) The affected source of this subpart is the collection of all existing industrial, commercial, and institutional boilers and process heaters within a subcategory located at a major source as defined in § 63.7575.

(2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler or

process heater located at a major source as defined in § 63.7575.

(b) A boiler or process heater is new if you commence construction of the boiler or process heater after January 13, 2003, and you meet the applicability criteria at the time you commence construction.

(c) A boiler or process heater is reconstructed if you meet the reconstruction criteria as defined in § 63.2, you commence reconstruction after January 13, 2003, and you meet the applicability criteria at the time you commence reconstruction.

(d) A boiler or process heater is existing if it is not new or reconstructed.

§ 63.7491 Are any boilers or process heaters not subject to this subpart?

The types of boilers and process heaters listed in paragraphs (a) through (o) of this section are not subject to this subpart.

(a) A municipal waste combustor covered by 40 CFR part 60, subpart AAAA, subpart BBBB, subpart Cb or subpart Eb.

(b) A hospital/medical/infectious waste incinerator covered by 40 CFR part 60, subpart Ce or subpart Ec.

(c) An electric utility steam generating unit that is a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity, and supplies more than one-third of its potential electric output capacity, and more than 25 megawatts electrical output to any utility power distribution system for sale is considered an electric utility steam generating unit.

(d) A boiler or process heater required to have a permit under section 3005 of the Solid Waste Disposal Act or covered by 40 CFR part 63, subpart EEE (*e.g.*, hazardous waste boilers).

(e) A commercial and industrial solid waste incineration unit covered by 40 CFR part 60, subpart CCCC or subpart DDDD.

(f) A recovery boiler or furnace covered by 40 CFR part 63, subpart MM.

(g) A boiler or process heater that is used specifically for research and development. This does not include units that only provide heat or steam to a process at a research and development facility.

(h) A hot water heater as defined in this subpart.

(i) A refining kettle covered by 40 CFR part 63, subpart X.

(j) An ethylene cracking furnace covered by 40 CFR part 63, subpart YY.

(k) Blast furnace stoves as described in the EPA document, entitled ''National Emission Standards for Hazardous Air Pollutants (NESHAP) for Integrated Iron and Steel Plants—Background Information for Proposed Standards,'' (EPA–453/R–01–005).

(l) Any boiler and process heater specifically listed as an affected source in another standard(s) under 40 CFR part 63.

(m) Any boiler and process heater specifically listed as an affected source in another standard(s) established under section 129 of the Clean Air Act (CAA).

(n) Temporary boilers as defined in this subpart.

(o) Blast furnace gas fuel-fired boilers and process heaters as defined in this subpart.

§ 63.7495 When do I have to comply with this subpart?

(a) If you have a new or reconstructed boiler or process heater, you must comply with this subpart by November 12, 2004 or upon startup of your boiler or process heater, whichever is later.

(b) If you have an existing boiler or process heater, you must comply with this subpart no later than September 13, 2007.

(c) If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, paragraphs (c)(1) and (2) of this section apply to you.

(1) Any new or reconstructed boiler or process heater at the existing facility must be in compliance with this subpart upon startup.

(2) Any existing boiler or process heater at the existing facility must be in compliance with this subpart within 3 years after the facility becomes a major source.

(d) You must meet the notification requirements in § 63.7545 according to the schedule in § 63.7545 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart.

Emission Limits and Work Practice Standards

§ 63.7499 What are the subcategories of boilers and process heaters?

The subcategories of boilers and process heaters are large solid fuel, limited use solid fuel, small solid fuel, large liquid fuel, limited use liquid fuel, small liquid fuel, large gaseous fuel, limited use gaseous fuel, and small gaseous fuel. Each subcategory is defined in § 63.7575.

§ 63.7500 What emission limits, work practice standards, and operating limits must I meet?

(a) You must meet the requirements in paragraphs (a)(1) and (2) of this section.

(1) You must meet each emission limit and work practice standard in Table 1 to this subpart that applies to your boiler or process heater, except as provided under § 63.7507.

(2) You must meet each operating limit in Tables 2 through 4 to this subpart that applies to your boiler or process heater. If you use a control device or combination of control devices not covered in Tables 2 through 4 to this subpart, or you wish to establish and monitor an alternative operating limit and alternative monitoring parameters, you must apply to the United States Environmental Protection Agency (EPA) Administrator for approval of alternative monitoring under § 63.8(f).

(b) As provided in § 63.6(g), EPA may approve use of an alternative to the work practice standards in this section.

General Compliance Requirements

§ 63.7505 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limits (including operating limits) and the work practice standards in this subpart at all times, except during periods of startup, shutdown, and malfunction.

(b) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in § 63.6(e)(1)(i).

(c) You can demonstrate compliance with any applicable emission limit using fuel analysis if the emission rate calculated according to § 63.7530(d) is less than the applicable emission limit. Otherwise, you must demonstrate compliance using performance testing.

(d) If you demonstrate compliance with any applicable emission limit through performance testing, you must develop a site-specific monitoring plan according to the requirements in paragraphs (d)(1) through (4) of this section. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under § 63.8(f).

(1) For each continuous monitoring system (CMS) required in this section, you must develop and submit to the EPA Administrator for approval a site-specific monitoring plan that addresses paragraphs (d)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan at least 60 days

before your initial performance evaluation of your CMS.

(i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (*e.g.*, on or downstream of the last control device);

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and

(iii) Performance evaluation procedures and acceptance criteria (*e.g.*, calibrations).

(2) In your site-specific monitoring plan, you must also address paragraphs (d)(2)(i) through (iii) of this section.

(i) Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1), (c)(3), and (c)(4)(ii);

(ii) Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d); and

(iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c), (e)(1), and (e)(2)(i).

(3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.

(4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

(e) If you have an applicable emission limit or work practice standard, you must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in § 63.6(e)(3).

§ 63.7506 Do any boilers or process heaters have limited requirements?

(a) New or reconstructed boilers and process heaters in the large liquid fuel subcategory or the limited use liquid fuel subcategory that burn only fossil fuels and other gases and do not burn any residual oil are subject to the emission limits and applicable work practice standards in Table 1 to this subpart. You are not required to conduct a performance test to demonstrate compliance with the emission limits. You are not required to set and maintain operating limits to demonstrate continuous compliance with the emission limits. However, you must meet the requirements in paragraphs (a)(1) and (2) of this section and meet the CO work practice standard in Table 1 to this subpart.

(1) To demonstrate initial compliance, you must include a signed statement in the Notification of Compliance Status report required in § 63.7545(e) that indicates you burn only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels.

(2) To demonstrate continuous compliance with the applicable emission limits, you must also keep records that demonstrate that you burn only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels. You must also include a signed statement in each semiannual compliance report required in § 63.7550 that indicates you burned only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels, during the reporting period.

(b) The affected boilers and process heaters listed in paragraphs (b)(1) through (3) of this section are subject to only the initial notification requirements in § 63.9(b) (*i.e.*, they are not subject to the emission limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart or any other requirements in subpart A of this part).

(1) Existing large and limited use gaseous fuel units.

(2) Existing large and limited use liquid fuel units.

(3) New or reconstructed small liquid fuel units that burn only gaseous fuels or distillate oil. New or reconstructed small liquid fuel boilers and process heaters that commence burning of any other type of liquid fuel must comply with all applicable requirements of this subpart and subpart A of this part upon startup of burning the other type of liquid fuel.

(c) The affected boilers and process heaters listed in paragraphs (c)(1) through (4) of this section are not subject to the initial notification requirements in § 63.9(b) and are not subject to any requirements in this subpart or in subpart A of this part (*i.e.*, they are not subject to the emission limits, work practice standards, performance testing, monitoring, SSM plans, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart, or any other requirements in subpart A of this part.

(1) Existing small solid fuel boilers and process heaters.

(2) Existing small liquid fuel boilers and process heaters.

(3) Existing small gaseous fuel boilers and process heaters.

(4) New or reconstructed small gaseous fuel units.

§ 63.7507 What are the health-based compliance alternatives for the hydrogen chloride (HCl) and total selected metals (TSM) standards?

(a) As an alternative to the requirement for large solid fuel boilers located at a single facility to demonstrate compliance with the HCl emission limit in Table 1 to this subpart, you may demonstrate eligibility for the health-based compliance alternative for HCl emissions under the procedures prescribed in appendix A to this subpart.

(b) In lieu of complying with the TSM emission standards in Table 1 to this subpart based on the sum of emissions for the eight selected metals, you may demonstrate eligibility for complying with the TSM emission standards in Table 1 based on the sum of emissions for seven selected metals (by excluding manganese emissions from the summation of TSM emissions) under the procedures prescribed in appendix A to this subpart.

Testing, Fuel Analyses, and Initial Compliance Requirements

§ 63.7510 What are my initial compliance requirements and by what date must I conduct them?

(a) For affected sources that elect to demonstrate compliance with any of the emission limits of this subpart through performance testing, your initial compliance requirements include conducting performance tests according to § 63.7520 and Table 5 to this subpart, conducting a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart, establishing operating limits according to § 63.7530 and Table 7 to this subpart, and conducting CMS performance evaluations according to § 63.7525.

(b) For affected sources that elect to demonstrate compliance with the emission limits for HCl, mercury, or TSM through fuel analysis, your initial compliance requirement is to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart and establish operating limits according to § 63.7530 and Table 8 to this subpart.

(c) For affected sources that have an applicable work practice standard, your initial compliance requirements depend on the subcategory and rated capacity of your boiler or process heater. If your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, your initial compliance demonstration is conducting a performance test for carbon monoxide

according to Table 5 to this subpart. If your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, your initial compliance demonstration is conducting a performance evaluation of your continuous emission monitoring system for carbon monoxide according to § 63.7525(a).

(d) For existing affected sources, you must demonstrate initial compliance no later than 180 days after the compliance date that is specified for your source in § 63.7495 and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart.

(e) If your new or reconstructed affected source commenced construction or reconstruction between January 13, 2003 and November 12, 2004, you must demonstrate initial compliance with either the proposed emission limits and work practice standards or the promulgated emission limits and work practice standards no later than 180 days after November 12, 2004 or within 180 days after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

(f) If your new or reconstructed affected source commenced construction or reconstruction between January 13, 2003, and November 12, 2004, and you chose to comply with the proposed emission limits and work practice standards when demonstrating initial compliance, you must conduct a second compliance demonstration for the promulgated emission limits and work practice standards within 3 years after November 12, 2004 or within 3 years after startup of the affected source, whichever is later.

(g) If your new or reconstructed affected source commences construction or reconstruction after November 12, 2004, you must demonstrate initial compliance with the promulgated emission limits and work practice standards no later than 180 days after startup of the source.

§ 63.7515 When must I conduct subsequent performance tests or fuel analyses?

(a) You must conduct all applicable performance tests according to § 63.7520 on an annual basis, unless you follow the requirements listed in paragraphs (b) through (d) of this section. Annual performance tests must be completed between 10 and 12 months after the previous performance test, unless you follow the requirements listed in paragraphs (b) through (d) of this section.

(b) You can conduct performance tests less often for a given pollutant if your performance tests for the pollutant (particulate matter, HCl, mercury, or TSM) for at least 3 consecutive years show that you comply with the emission limit. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You must conduct a performance test during the third year and no more than 36 months after the previous performance test.

(c) If your boiler or process heater continues to meet the emission limit for particulate matter, HCl, mercury, or TSM, you may choose to conduct performance tests for these pollutants every third year, but each such performance test must be conducted no more than 36 months after the previous performance test.

(d) If a performance test shows noncompliance with an emission limit for particulate matter, HCl, mercury, or TSM, you must conduct annual performance tests for that pollutant until all performance tests over a consecutive 3-year period show compliance.

(e) If you have an applicable work practice standard for carbon monoxide and your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, you must conduct annual performance tests for carbon monoxide according to § 63.7520. Each annual performance test must be conducted between 10 and 12 months after the previous performance test.

(f) You must conduct a fuel analysis according to § 63.7521 for each type of fuel burned no later than 5 years after the previous fuel analysis for each fuel type. If you burn a new type of fuel, you must conduct a fuel analysis before burning the new type of fuel in your boiler or process heater. You must still meet all applicable continuous compliance requirements in § 63.7540.

(g) You must report the results of performance tests and fuel analyses within 60 days after the completion of the performance tests or fuel analyses. This report should also verify that the operating limits for your affected source have not changed or provide documentation of revised operating parameters established according to § 63.7530 and Table 7 to this subpart, as applicable. The reports for all subsequent performance tests and fuel analyses should include all applicable information required in § 63.7550.

§ 63.7520 What performance tests and procedures must I use?

(a) You must conduct all performance tests according to § 63.7(c), (d), (f), and (h). You must also develop a site-specific test plan according to the requirements in § 63.7(c) if you elect to demonstrate compliance through performance testing.

(b) You must conduct each performance test according to the requirements in Table 5 to this subpart.

(c) New or reconstructed boilers or process heaters in one of the liquid fuel subcategories that burn only fossil fuels and other gases and do not burn any residual oil must demonstrate compliance according to § 63.7506(a).

(d) You must conduct each performance test under the specific conditions listed in Tables 5 and 7 to this subpart. You must conduct performance tests at the maximum normal operating load while burning the type of fuel or mixture of fuels that have the highest content of chlorine, mercury, and total selected metals, and you must demonstrate initial compliance and establish your operating limits based on these tests. These requirements could result in the need to conduct more than one performance test.

(e) You may not conduct performance tests during periods of startup, shutdown, or malfunction.

(f) You must conduct three separate test runs for each performance test required in this section, as specified in § 63.7(e)(3). Each test run must last at least 1 hour.

(g) To determine compliance with the emission limits, you must use the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 of appendix A to part 60 of this chapter to convert the measured particulate matter concentrations, the measured HCl concentrations, the measured TSM concentrations, and the measured mercury concentrations that result from the initial performance test to pounds per million Btu heat input emission rates using F-factors.

§ 63.7521 What fuel analyses and procedures must I use?

(a) You must conduct fuel analyses according to the procedures in paragraphs (b) through (e) of this section and Table 6 to this subpart, as applicable.

(b) You must develop and submit a site-specific fuel analysis plan to the EPA Administrator for review and approval according to the following procedures and requirements in paragraphs (b)(1) and (2) of this section.

(1) You must submit the fuel analysis plan no later than 60 days before the date that you intend to demonstrate compliance.

(2) You must include the information contained in paragraphs (b)(2)(i)

through (vi) of this section in your fuel analysis plan.

(i) The identification of all fuel types anticipated to be burned in each boiler or process heater.

(ii) For each fuel type, the notification of whether you or a fuel supplier will be conducting the fuel analysis.

(iii) For each fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the composite samples if your procedures are different from paragraph (c) or (d) of this section. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types.

(iv) For each fuel type, the analytical methods, with the expected minimum detection levels, to be used for the measurement of selected total metals, chlorine, or mercury.

(v) If you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that will be used.

(vi) If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart.

(c) At a minimum, you must obtain three composite fuel samples for each fuel type according to the procedures in paragraph (c)(1) or (2) of this section.

(1) If sampling from a belt (or screw) feeder, collect fuel samples according to paragraphs (c)(1)(i) and (ii) of this section.

(i) Stop the belt and withdraw a 6-inch wide sample from the full cross-section of the stopped belt to obtain a minimum two pounds of sample. Collect all the material (fines and coarse) in the full cross-section. Transfer the sample to a clean plastic bag.

(ii) Each composite sample will consist of a minimum of three samples collected at approximately equal intervals during the testing period.

(2) If sampling from a fuel pile or truck, collect fuel samples according to paragraphs (c)(2)(i) through (iii) of this section.

(i) For each composite sample, select a minimum of five sampling locations uniformly spaced over the surface of the pile.

(ii) At each sampling site, dig into the pile to a depth of 18 inches. Insert a clean flat square shovel into the hole and withdraw a sample, making sure that large pieces do not fall off during sampling.

(iii) Transfer all samples to a clean plastic bag for further processing.

(d) Prepare each composite sample according to the procedures in paragraphs (d)(1) through (7) of this section.

(1) Throughly mix and pour the entire composite sample over a clean plastic sheet.

(2) Break sample pieces larger than 3 inches into smaller sizes.

(3) Make a pie shape with the entire composite sample and subdivide it into four equal parts.

(4) Separate one of the quarter samples as the first subset.

(5) If this subset is too large for grinding, repeat the procedure in paragraph (d)(3) of this section with the quarter sample and obtain a one-quarter subset from this sample.

(6) Grind the sample in a mill.

(7) Use the procedure in paragraph (d)(3) of this section to obtain a one-quarter subsample for analysis. If the quarter sample is too large, subdivide it further using the same procedure.

(e) Determine the concentration of pollutants in the fuel (mercury, chlorine, and/or total selected metals) in units of pounds per million Btu of each composite sample for each fuel type according to the procedures in Table 6 to this subpart.

§ 63.7522 Can I use emission averaging to comply with this subpart?

(a) As an alternative to meeting the requirements of § 63.7500, if you have more than one existing large solid fuel boiler located at your facility, you may demonstrate compliance by emission averaging according to the procedures in this section in a State that does not choose to exclude emission averaging.

(b) For each existing large solid fuel boiler in the averaging group, the emission rate achieved during the initial compliance test for the HAP being averaged must not exceed the emission level that was being achieved on November 12, 2004 or the control technology employed during the initial compliance test must not be less effective for the HAP being averaged than the control technology employed on November 12, 2004.

(c) You may average particulate matter or TSM, HCl, and mercury emissions from existing large solid fuel boilers to demonstrate compliance with the limits in Table 1 to this subpart if you satisfy the requirements in paragraphs (d), (e), and (f) of this section.

(d) The weighted average emissions from the existing large solid fuel boilers participating in the emissions averaging option must be in compliance with the limits in Table 1 to this subpart at all times following the compliance date specified in § 63.7495.

(e) You must demonstrate initial compliance according to paragraphs (e)(1) or (2) of this section.

(1) You must use Equation 1 of this section to demonstrate that the particulate matter or TSM, HCl, and mercury emissions from all existing large solid fuel boilers participating in the emissions averaging option do not exceed the emission limits in Table 1 to this subpart.

$$\text{AveWeighted Emissions} = \sum_{i=1}^{n}(\text{Er} \times \text{Hm}) \div \sum_{i=1}^{n}\text{Hm} \qquad \text{(Eq. 1)}$$

Where:

AveWeighted = Average weighted emissions for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in § 63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Hm = Maximum rated heat input capacity of boiler, i, in units of million Btu per hour.

n = Number of large solid fuel boilers participating in the emissions averaging option.

(2) If you are not capable of monitoring heat input, you can use Equation 2 of this section as an alternative to using equation 1 of this section to demonstrate that the particulate matter or TSM, HCl, and mercury emissions from all existing large solid fuel boilers participating in the emissions averaging option do not exceed the emission limits in Table 1 to this subpart.

$$\text{AveWeighted Emissions} = \sum_{i=1}^{n}(\text{Er} \times \text{Sm} \times \text{Cf}) \div \sum_{i=1}^{n}\text{Sm} \times \text{Cf} \qquad \text{(Eq. 2)}$$

Where:

AveWeighted = Average weighted emission level for PM or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in § 63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Sm = Maximum steam generation by boiler, i, in units of pounds.

Cf = Conversion factor, calculated from the most recent compliance test, in units of million Btu of heat input per pounds of steam generated.

(f) You must demonstrate continuous compliance on a 12-month rolling average basis determined at the end of every month (12 times per year) according to paragraphs (f)(1) and (2). The first 12-month rolling-average period begins on the compliance date specified in § 63.7495.

(1) For each calendar month, you must use Equation 3 of this section to calculate the 12-month rolling average weighted emission limit using the actual heat capacity for each existing large solid fuel boiler participating in the emissions averaging option.

$$\text{AveWeighted Emissions} = \sum_{i=1}^{n}(\text{Er} \times \text{Hb}) \div \sum_{i=1}^{n}\text{Hb} \qquad \text{(Eq. 3)}$$

Where:

AveWeighted Emissions = 12-month rolling average weighted emission level for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate, calculated during the most recent compliance test, (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in § 63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Hb = The average heat input for each calendar month of boiler, i, in units of million Btu.

n = Number of large solid fuel boilers participating in the emissions averaging option.

(2) If you are not capable of monitoring heat input, you can use Equation 4 of this section as an alternative to using Equation 3 of this section to calculate the 12-month rolling average weighted emission limit using the actual steam generation from the large solid fuel boilers participating in the emissions averaging option.

$$\text{AveWeighted Emissions} = \sum_{i=1}^{n}(\text{Er} \times \text{Sa} \times \text{Cf}) \div \sum_{i=1}^{n}\text{Sa} \times \text{Cf} \qquad \text{(Eq. 4)}$$

Where:

AveWeighted Emissions = 12-month rolling average weighted emission level for PM or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate, calculated during the most recent compliance test (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in § 63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Sa = Actual steam generation for each calender month by boiler, i, in units of pounds.

Cf = Conversion factor, as calculated during the most recent compliance test, in units of million Btu of heat input per pounds of steam generated.

(g) You must develop and submit an implementation plan for emission averaging to the applicable regulatory authority for review and approval according to the following procedures and requirements in paragraphs (g)(1) through (4).

(1) You must submit the implementation plan no later than 180 days before the date that the facility intends to demonstrate compliance using the emission averaging option.

(2) You must include the information contained in paragraphs (g)(2)(i) through (vii) of this section in your implementation plan for all emission sources included in an emissions average:

(i) The identification of all existing large solid fuel boilers in the averaging group, including for each either the applicable HAP emission level or the control technology installed on;

(ii) The process parameter (heat input or steam generated) that will be monitored for each averaging group of large solid fuel boilers;

(iii) The specific control technology or pollution prevention measure to be used for each emission source in the averaging group and the date of its installation or application. If the pollution prevention measure reduces or eliminates emissions from multiple sources, the owner or operator must identify each source;

(iv) The test plan for the measurement of particulate matter (or TSM), HCl, or mercury emissions in accordance with the requirements in § 63.7520;

(v) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(vi) If you request to monitor an alternative operating parameter pursuant to § 63.7525, you must also include:

(A) A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

(B) A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device; the frequency and content of monitoring, reporting, and recordkeeping requirements; and a demonstration, to the satisfaction of the applicable regulatory authority, that the proposed monitoring frequency is sufficient to represent control device operating conditions; and

(vii) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

(3) Upon receipt, the regulatory authority shall review and approve or disapprove the plan according to the following criteria:

(i) Whether the content of the plan includes all of the information specified in paragraph (g)(2) of this section; and

(ii) Whether the plan presents sufficient information to determine that compliance will be achieved and maintained.

(4) The applicable regulatory authority shall not approve an emission averaging implementation plan containing any of the following provisions:

(i) Any averaging between emissions of differing pollutants or between differing sources; or

(ii) The inclusion of any emission source other than an existing large solid fuel boiler.

§ 63.7525 What are my monitoring, installation, operation, and maintenance requirements?

(a) If you have an applicable work practice standard for carbon monoxide, and your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, you must install, operate, and maintain a continuous emission monitoring system (CEMS) for carbon monoxide according to the procedures in paragraphs (a)(1) through (6) of this section by the compliance date specified in § 63.7495.

(1) Each CEMS must be installed, operated, and maintained according to Performance Specification (PS) 4A of 40 CFR part 60, appendix B, and according to the site-specific monitoring plan developed according to § 63.7505(d).

(2) You must conduct a performance evaluation of each CEMS according to the requirements in § 63.8 and according to PS 4A of 40 CFR part 60, appendix B.

(3) Each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(4) The CEMS data must be reduced as specified in § 63.8(g)(2).

(5) You must calculate and record a 30-day rolling average emission rate on a daily basis. A new 30-day rolling average emission rate is calculated as the average of all of the hourly CO emission data for the preceding 30 operating days.

(6) For purposes of calculating data averages, you must not use data recorded during periods of monitoring malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities, or when your boiler or process heater is operating at less than 50 percent of its rated capacity. You must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out of control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

(b) If you have an applicable opacity operating limit, you must install, operate, certify and maintain each continuous opacity monitoring system (COMS) according to the procedures in paragraphs (b)(1) through (7) of this section by the compliance date specified in § 63.7495.

(1) Each COMS must be installed, operated, and maintained according to PS 1 of 40 CFR part 60, appendix B.

(2) You must conduct a performance evaluation of each COMS according to the requirements in § 63.8 and according to PS 1 of 40 CFR part 60, appendix B.

(3) As specified in § 63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(4) The COMS data must be reduced as specified in § 63.8(g)(2).

(5) You must include in your site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in § 63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.

(6) You must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of § 63.8(e). Identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit.

(7) You must determine and record all the 6-minute averages (and 1-hour block averages as applicable) collected for periods during which the COMS is not out of control.

(c) If you have an operating limit that requires the use of a CMS, you must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the procedures in paragraphs (c)(1) through (5) of this section by the compliance date specified in § 63.7495.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data.

(2) Except for monitoring malfunctions, associated repairs, and required quality assurance or control

activities (including, as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation at all times that the unit is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(3) For purposes of calculating data averages, you must not use data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities. You must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out-of-control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

(4) Determine the 3-hour block average of all recorded readings, except as provided in paragraph (c)(3) of this section.

(5) Record the results of each inspection, calibration, and validation check.

(d) If you have an operating limit that requires the use of a flow measurement device, you must meet the requirements in paragraphs (c) and (d)(1) through (4) of this section.

(1) Locate the flow sensor and other necessary equipment in a position that provides a representative flow.

(2) Use a flow sensor with a measurement sensitivity of 2 percent of the flow rate.

(3) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(4) Conduct a flow sensor calibration check at least semiannually.

(e) If you have an operating limit that requires the use of a pressure measurement device, you must meet the requirements in paragraphs (c) and (e)(1) through (6) of this section.

(1) Locate the pressure sensor(s) in a position that provides a representative measurement of the pressure.

(2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(3) Use a gauge with a minimum tolerance of 1.27 centimeters of water or a transducer with a minimum tolerance of 1 percent of the pressure range.

(4) Check pressure tap pluggage daily.

(5) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(6) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(f) If you have an operating limit that requires the use of a pH measurement device, you must meet the requirements in paragraphs (c) and (f)(1) through (3) of this section.

(1) Locate the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

(2) Ensure the sample is properly mixed and representative of the fluid to be measured.

(3) Check the pH meter's calibration on at least two points every 8 hours of process operation.

(g) If you have an operating limit that requires the use of equipment to monitor voltage and secondary current (or total power input) of an electrostatic precipitator (ESP), you must use voltage and secondary current monitoring equipment to measure voltage and secondary current to the ESP.

(h) If you have an operating limit that requires the use of equipment to monitor sorbent injection rate (*e.g.*, weigh belt, weigh hopper, or hopper flow measurement device), you must meet the requirements in paragraphs (c) and (h)(1) through (3) of this section.

(1) Locate the device in a position(s) that provides a representative measurement of the total sorbent injection rate.

(2) Install and calibrate the device in accordance with manufacturer's procedures and specifications.

(3) At least annually, calibrate the device in accordance with the manufacturer's procedures and specifications.

(i) If you elect to use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate a bag leak detection system as specified in paragraphs (i)(1) through (8) of this section.

(1) You must install and operate a bag leak detection system for each exhaust stack of the fabric filter.

(2) Each bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA–454/R–98–015, September 1997.

(3) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

(4) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.

(5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

(6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

(7) For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a bag leak detection system must be installed in each baghouse compartment or cell.

(8) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

§ 63.7530 How do I demonstrate initial compliance with the emission limits and work practice standards?

(a) You must demonstrate initial compliance with each emission limit and work practice standard that applies to you by either conducting initial performance tests and establishing operating limits, as applicable, according to § 63.7520, paragraph (c) of this section, and Tables 5 and 7 to this subpart OR conducting initial fuel analyses to determine emission rates and establishing operating limits, as applicable, according to § 63.7521, paragraph (d) of this section, and Tables 6 and 8 to this subpart.

(b) New or reconstructed boilers or process heaters in one of the liquid fuel subcategories that burn only fossil fuels and other gases and do not burn any residual oil must demonstrate compliance according to § 63.7506(a).

(c) If you demonstrate compliance through performance testing, you must establish each site-specific operating limit in Tables 2 through 4 to this subpart that applies to you according to the requirements in § 63.7520, Table 7 to this subpart, and paragraph (c)(4) of this section, as applicable. You must also conduct fuel analyses according to § 63.7521 and establish maximum fuel pollutant input levels according to paragraphs (c)(1) through (3) of this section, as applicable.

(1) You must establish the maximum chlorine fuel input (C_{input}) during the initial performance testing according to the procedures in paragraphs (c)(1)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in

your boiler or process heater that has the highest content of chlorine.

(ii) During the performance testing for HCl, you must determine the fraction of the total heat input for each fuel type burned (Q_i) based on the fuel mixture that has the highest content of chlorine, and the average chlorine concentration of each fuel type burned (C_i).

(iii) You must establish a maximum chlorine input level using Equation 5 of this section.

$$Cl_{input} = \sum_{i=1}^{n}\left[(C_i)(Q_i)\right] \qquad \text{(Eq. 5)}$$

Where:

Cl_{input} = Maximum amount of chlorine entering the boiler or process heater through fuels burned in units of pounds per million Btu.

C_i = Arithmetic average concentration of chlorine in fuel type, i, analyzed according to § 63.7521, in units of pounds per million Btu.

Q_i = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types during the performance testing, it is not necessary to determine the value of this term. Insert a value of ''1'' for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

(2) If you choose to comply with the alternative TSM emission limit instead of the particulate matter emission limit, you must establish the maximum TSM fuel input level (TSM_{input}) during the initial performance testing according to the procedures in paragraphs (c)(2)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of TSM.

(ii) During the performance testing for TSM, you must determine the fraction of total heat input from each fuel burned (Q_i) based on the fuel mixture that has the highest content of total selected metals, and the average TSM concentration of each fuel type burned (M_i).

(iii) You must establish a baseline TSM input level using Equation 6 of this section.

$$TSM_{input} = \sum_{i=1}^{n}\left[(M_i)(Q_i)\right] \qquad \text{(Eq. 6)}$$

Where:

TSM_{input} = Maximum amount of TSM entering the boiler or process heater through fuels burned in units of pounds per million Btu.

M_i = Arithmetic average concentration of TSM in fuel type, i, analyzed according to § 63.7521, in units of pounds per million Btu.

Q_i = Fraction of total heat input from based fuel type, i, based on the fuel mixture that has the highest content of TSM. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of ''1'' for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM.

(3) You must establish the maximum mercury fuel input level ($Mercury_{input}$) during the initial performance testing using the procedures in paragraphs (c)(3)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of mercury.

(ii) During the compliance demonstration for mercury, you must determine the fraction of total heat input for each fuel burned (Q_i) based on the fuel mixture that has the highest content of mercury, and the average mercury concentration of each fuel type burned (HG_i).

(iii) You must establish a maximum mercury input level using Equation 7 of this section.

$$Mercury_{input} = \sum_{i=1}^{n}\left[(HG_i)(Q_i)\right] \qquad \text{(Eq. 7)}$$

Where:

$Mercury_{input}$ = Maximum amount of mercury entering the boiler or process heater through fuels burned in units of pounds per million Btu.

HG_i = Arithmetic average concentration of mercury in fuel type, i, analyzed according to § 63.7521, in units of pounds per million Btu.

Q_i = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of ''1'' for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of mercury.

(4) You must establish parameter operating limits according to paragraphs (c)(4)(i) through (iv) of this section.

(i) For a wet scrubber, you must establish the minimum scrubber effluent pH, liquid flowrate, and pressure drop as defined in § 63.7575, as your operating limits during the three-run performance test. If you use a wet scrubber and you conduct separate performance tests for particulate matter, HCl, and mercury emissions, you must establish one set of minimum scrubber effluent pH, liquid flowrate, and pressure drop operating limits. The minimum scrubber effluent pH operating limit must be established during the HCl performance test. If you conduct multiple performance tests, you must set the minimum liquid flowrate and pressure drop operating limits at the highest minimum values established during the performance tests.

(ii) For an electrostatic precipitator, you must establish the minimum voltage and secondary current (or total power input), as defined in § 63.7575, as your operating limits during the three-run performance test.

(iii) For a dry scrubber, you must establish the minimum sorbent injection rate, as defined in § 63.7575, as your operating limit during the three-run performance test.

(iv) The operating limit for boilers or process heaters with fabric filters that choose to demonstrate continuous compliance through bag leak detection systems is that a bag leak detection system be installed according to the requirements in § 63.7525, and that each fabric filter must be operated such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period.

(d) If you elect to demonstrate compliance with an applicable emission limit through fuel analysis, you must conduct fuel analyses according to § 63.7521 and follow the procedures in paragraphs (d)(1) through (5) of this section.

(1) If you burn more than one fuel type, you must determine the fuel mixture you could burn in your boiler or process heater that would result in the maximum emission rates of the pollutants that you elect to demonstrate compliance through fuel analysis.

(2) You must determine the 90th percentile confidence level fuel pollutant concentration of the composite samples analyzed for each fuel type using the one-sided z-statistic test described in Equation 8 of this section.

$$P_{90} = \text{mean} + (SD \times t) \qquad \text{(Eq. 8)}$$

Where:

P_{90} = 90th percentile confidence level pollutant concentration, in pounds per million Btu.

mean = Arithmetic average of the fuel pollutant concentration in the fuel samples analyzed according to § 63.7521, in units of pounds per million Btu.

SD = Standard deviation of the pollutant concentration in the fuel samples analyzed according to § 63.7521, in units of pounds per million Btu.

t = t distribution critical value for 90th percentile (0.1) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a Distribution Critical Value Table.

(3) To demonstrate compliance with the applicable emission limit for HCl, the HCl emission rate that you calculate for your boiler or process heater using Equation 9 of this section must be less than the applicable emission limit for HCl.

$$HCl = \sum_{i=1}^{n}\left[\left(C_{i90}\right)\left(Q_i\right)\left(1.028\right)\right] \qquad \text{(Eq. 9)}$$

Where:

HCl = HCl emission rate from the boiler or process heater in units of pounds per million Btu.

C_{i90} = 90th percentile confidence level concentration of chlorine in fuel type, i, in units of pounds per million Btu as calculated according to Equation 8 of this section.

Q_i = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of ''1'' for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

1.028 = Molecular weight ratio of HCl to chlorine.

(4) To demonstrate compliance with the applicable emission limit for TSM, the TSM emission rate that you calculate for your boiler or process heater using Equation 10 of this section must be less than the applicable emission limit for TSM.

$$TSM = \sum_{i=1}^{n}\left[\left(M_{i90}\right)\left(Q_i\right)\right] \qquad \text{(Eq. 10)}$$

Where:

TSM = TSM emission rate from the boiler or process heater in units of pounds per million Btu.

M_{i90} = 90th percentile confidence level concentration of TSM in fuel, i, in units of pounds per million Btu as calculated according to Equation 8 of this section.

Q_i = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of total selected metals. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of ''1'' for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM.

(5) To demonstrate compliance with the applicable emission limit for mercury, the mercury emission rate that you calculate for your boiler or process heater using Equation 11 of this section must be less than the applicable emission limit for mercury.

$$Mercury = \sum_{i=1}^{n}\left[\left(HG_{i90}\right)\left(Q_i\right)\right] \qquad \text{(Eq. 11)}$$

Where:

Mercury = Mercury emission rate from the boiler or process heater in units of pounds per million Btu.

HG_{i90} = 90th percentile confidence level concentration of mercury in fuel, i, in units of pounds per million Btu as calculated according to Equation 8 of this section.

Q_i = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of ''1'' for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest mercury content.

(e) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.7545(e).

Continuous Compliance Requirements

§ 63.7535 How do I monitor and collect data to demonstrate continuous compliance?

(a) You must monitor and collect data according to this section and the site-specific monitoring plan required by § 63.7505(d).

(b) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) at all times that the affected source is operating.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, or required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system. Boilers and process heaters that have an applicable carbon monoxide work practice standard and are required to install and operate a CEMS, may not use data recorded during periods when the boiler or process heater is operating at less than 50 percent of its rated capacity.

§ 63.7540 How do I demonstrate continuous compliance with the emission limits and work practice standards?

(a) You must demonstrate continuous compliance with each emission limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that applies to you according to the methods specified in Table 8 to this subpart and paragraphs (a)(1) through (10) of this section.

(1) Following the date on which the initial performance test is completed or is required to be completed under §§ 63.7 and 63.7510, whichever date comes first, you must not operate above any of the applicable maximum operating limits or below any of the applicable minimum operating limits listed in Tables 2 through 4 to this subpart at all times except during periods of startup, shutdown and malfunction. Operating limits do not apply during performance tests. Operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits.

(2) You must keep records of the type and amount of all fuels burned in each boiler or process heater during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would either result in lower emissions of TSM, HCl, and mercury, than the applicable emission limit for each pollutant (if you demonstrate compliance through fuel analysis), or result in lower fuel input of TSM, chlorine, and mercury than the maximum values calculated during the last performance tests (if you demonstrate compliance through performance testing).

(3) If you demonstrate compliance with an applicable HCl emission limit through fuel analysis and you plan to burn a new type of fuel, you must recalculate the HCl emission rate using Equation 9 of § 63.7530 according to paragraphs (a)(3)(i) through (iii) of this section.

(i) You must determine the chlorine concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of chlorine.

(iii) Recalculate the HCl emission rate from your boiler or process heater under these new conditions using Equation 9 of § 63.7530. The recalculated HCl emission rate must be less than the applicable emission limit.

(4) If you demonstrate compliance with an applicable HCl emission limit through performance testing and you plan to burn a new type of fuel type or a new mixture of fuels, you must recalculate the maximum chlorine input using Equation 5 of § 63.7530. If the results of recalculating the maximum chlorine input using Equation 5 of § 63.7530 are higher than the maximum chlorine input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the HCl emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(c).

(5) If you demonstrate compliance with an applicable TSM emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the TSM emission rate using Equation 10 of § 63.7530 according to the procedures specified in paragraphs (a)(5)(i) through (iii) of this section.

(i) You must determine the TSM concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of TSM.

(iii) Recalculate the TSM emission rate from your boiler or process heater under these new conditions using Equation 10 of § 63.7530. The recalculated TSM emission rate must be less than the applicable emission limit.

(6) If you demonstrate compliance with an applicable TSM emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum TSM input using Equation 6 of § 63.7530. If the results of recalculating the maximum total selected metals input using Equation 6 of § 63.7530 are higher than the maximum TSM input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the TSM emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(c).

(7) If you demonstrate compliance with an applicable mercury emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the mercury emission rate using Equation 11 of § 63.7530 according to the procedures specified in paragraphs (a)(7)(i) through (iii) of this section.

(i) You must determine the mercury concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of mercury.

(iii) Recalculate the mercury emission rate from your boiler or process heater under these new conditions using Equation 11 of § 63.7530. The recalculated mercury emission rate must be less than the applicable emission limit.

(8) If you demonstrate compliance with an applicable mercury emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum mercury input using Equation 7 of § 63.7530. If the results of recalculating the maximum mercury input using Equation 7 of § 63.7530 are higher than the maximum mercury input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the mercury emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(c).

(9) If your unit is controlled with a fabric filter, and you demonstrate continuous compliance using a bag leak detection system, you must initiate corrective action within 1 hour of a bag leak detection system alarm and complete corrective actions according to your SSMP, and operate and maintain the fabric filter system such that the alarm does not sound more than 5 percent of the operating time during a 6-month period. You must also keep records of the date, time, and duration of each alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. You must also record the percent of the operating time during each 6-month period that the alarm sounds. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken to initiate corrective action.

(10) If you have an applicable work practice standard for carbon monoxide, and you are required to install a CEMS according to § 63.7525(a), then you must meet the requirements in paragraphs (a)(10)(i) through (iii) of this section.

(i) You must continuously monitor carbon monoxide according to §§ 63.7525(a) and 63.7535.

(ii) Maintain a carbon monoxide emission level below your applicable carbon monoxide work practice standard in Table 1 to this subpart at all times except during periods of startup, shutdown, malfunction, and when your boiler or process heater is operating at less than 50 percent of rated capacity.

(iii) Keep records of carbon monoxide levels according to § 63.7555(b).

(b) You must report each instance in which you did not meet each emission limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that apply to you. You must also report each instance during a startup, shutdown, or malfunction when you did not meet each applicable emission limit, operating limit, and work practice standard. These instances are deviations from the emission limits and work practice standards in this subpart. These deviations must be reported according to the requirements in § 63.7550.

(c) During periods of startup, shutdown, and malfunction, you must operate in accordance with the SSMP as required in § 63.7505(e).

(d) Consistent with §§ 63.6(e)and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the EPA Administrator's satisfaction that you were operating in accordance with your SSMP. The EPA Administrator will determine whether

deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in § 63.6(e).

§ 63.7541 How do I demonstrate continuous compliance under the emission averaging provision?

(a) Following the compliance date, the owner or operator must demonstrate compliance with this subpart on a continuous basis by meeting the requirements of paragraphs (a)(1) through (4) of this section.

(1) For each calendar month, demonstrate compliance with the average weighted emissions limit for the existing large solid fuel boilers participating in the emissions averaging option as determined in § 63.7522(f) and (g);

(2) For each existing solid fuel boiler participating in the emissions averaging option that is equipped with a dry control system, maintain opacity at or below the applicable limit;

(3) For each existing solid fuel boiler participating in the emissions averaging option that is equipped with a wet scrubber, maintain the 3-hour average parameter values at or below the operating limits established during the most recent performance test; and

(4) For each existing solid fuel boiler participating in the emissions averaging option that has an approved alternative operating plan, maintain the 3-hour average parameter values at or below the operating limits established in the most recent performance test.

(b) Any instance where the owner or operator fails to comply with the continuous monitoring requirements in paragraphs (a)(1) through (4) of this section, except during periods of startup, shutdown, and malfunction, is a deviation.

Notification, Reports, and Records

§ 63.7545 What notifications must I submit and when?

(a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) that apply to you by the dates specified.

(b) As specified in § 63.9(b)(2), if you startup your affected source before November 12, 2004, you must submit an Initial Notification not later than 120 days after November 12, 2004. The Initial Notification must include the information required in paragraphs (b)(1) and (2) of this section, as applicable.

(1) If your affected source has an annual capacity factor of greater than 10 percent, your Initial Notification must include the information required by § 63.9(b)(2).

(2) If your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent such that the unit is in one of the limited use subcategories (the limited use solid fuel subcategory, the limited use liquid fuel subcategory, or the limited use gaseous fuel subcategory), your Initial Notification must include the information required by § 63.9(b)(2) and also a signed statement indicating your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent.

(c) As specified in § 63.9(b)(4) and (b)(5), if you startup your new or reconstructed affected source on or after November 12, 2004, you must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source.

(d) If you are required to conduct a performance test you must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin.

(e) If you are required to conduct an initial compliance demonstration as specified in § 63.7530(a), you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii). For each initial compliance demonstration, you must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of the performance test and/or other initial compliance demonstrations according to § 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (9), as applicable.

(1) A description of the affected source(s) including identification of which subcategory the source is in, the capacity of the source, a description of the add-on controls used on the source description of the fuel(s) burned, and justification for the fuel(s) burned during the performance test.

(2) Summary of the results of all performance tests, fuel analyses, and calculations conducted to demonstrate initial compliance including all established operating limits.

(3) Identification of whether you are complying with the particulate matter emission limit or the alternative total selected metals emission limit.

(4) Identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing or fuel analysis.

(5) Identification of whether you plan to demonstrate compliance by emissions averaging.

(6) A signed certification that you have met all applicable emission limits and work practice standards.

(7) A summary of the carbon monoxide emissions monitoring data and the maximum carbon monoxide emission levels recorded during the performance test to show that you have met any applicable work practice standard in Table 1 to this subpart.

(8) If your new or reconstructed boiler or process heater is in one of the liquid fuel subcategories and burns only liquid fossil fuels other than residual oil either alone or in combination with gaseous fuels, you must submit a signed statement certifying this in your Notification of Compliance Status report.

(9) If you had a deviation from any emission limit or work practice standard, you must also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report.

§ 63.7550 What reports must I submit and when?

(a) You must submit each report in Table 9 to this subpart that applies to you.

(b) Unless the EPA Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in § 63.7495.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in § 63.7495.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered

no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must contain the information required in paragraphs (c)(1) through (11) of this section.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel and the total fuel usage amount with units of measure.

(5) A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during this test, if applicable.

(6) A signed statement indicating that you burned no new types of fuel. Or, if you did burn a new type of fuel, you must submit the calculation of chlorine input, using Equation 5 of § 63.7530, that demonstrates that your source is still within its maximum chlorine input level established during the previous performance testing (for sources that demonstrate compliance through performance testing) or you must submit the calculation of HCl emission rate using Equation 9 of § 63.7530 that demonstrates that your source is still meeting the emission limit for HCl emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel, you must submit the calculation of TSM input, using Equation 6 of § 63.7530, that demonstrates that your source is still within its maximum TSM input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of TSM emission rate using Equation 10 of § 63.7530 that demonstrates that your source is still meeting the emission limit for TSM emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel, you must submit the calculation of mercury input, using Equation 7 of § 63.7530, that demonstrates that your source is still within its maximum mercury input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of mercury emission rate using Equation 11 of § 63.7530 that demonstrates that your source is still meeting the emission limit for mercury emissions (for boilers or process heaters that demonstrate compliance through fuel analysis).

(7) If you wish to burn a new type of fuel and you can not demonstrate compliance with the maximum chlorine input operating limit using Equation 5 of § 63.7530, the maximum TSM input operating limit using Equation 6 of § 63.7530, or the maximum mercury input operating limit using Equation 7 of § 63.7530, you must include in the compliance report a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.

(8) The hours of operation for each boiler and process heater that is subject to an emission limit for each calendar month within the semiannual reporting period. This requirement applies only to limited use boilers and process heaters.

(9) If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in § 63.10(d)(5)(i).

(10) If there are no deviations from any emission limits or operating limits in this subpart that apply to you, and there are no deviations from the requirements for work practice standards in this subpart, a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.

(11) If there were no periods during which the CMSs, including CEMS, COMS, and CPMS, were out of control as specified in § 63.8(c)(7), a statement that there were no periods during which the CMSs were out of control during the reporting period.

(d) For each deviation from an emission limit or operating limit in this subpart and for each deviation from the requirements for work practice standards in this subpart that occurs at an affected source where you are not using a CMSs to comply with that emission limit, operating limit, or work practice standard, the compliance report must contain the information in paragraphs (c)(1) through (10) of this section and the information required in paragraphs (d)(1) through (4) of this section. This includes periods of startup, shutdown, and malfunction.

(1) The total operating time of each affected source during the reporting period.

(2) A description of the deviation and which emission limit, operating limit, or work practice standard from which you deviated.

(3) Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.

(4) A copy of the test report if the annual performance test showed a deviation from the emission limit for particulate matter or the alternative TSM limit, a deviation from the HCl emission limit, or a deviation from the mercury emission limit.

(e) For each deviation from an emission limitation and operating limit or work practice standard in this subpart occurring at an affected source where you are using a CMS to comply with that emission limit, operating limit, or work practice standard, you must include the information in paragraphs (c) (1) through (10) of this section and the information required in paragraphs (e) (1) through (12) of this section. This includes periods of startup, shutdown, and malfunction and any deviations from your site-specific monitoring plan as required in § 63.7505(d).

(1) The date and time that each malfunction started and stopped and description of the nature of the deviation (*i.e.*, what you deviated from).

(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out of control, including the information in § 63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems,

process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMSs downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.

(8) An identification of each parameter that was monitored at the affected source for which there was a deviation, including opacity, carbon monoxide, and operating parameters for wet scrubbers and other control devices.

(9) A brief description of the source for which there was a deviation.

(10) A brief description of each CMS for which there was a deviation.

(11) The date of the latest CMS certification or audit for the system for which there was a deviation.

(12) A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 9 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(g) If you operate a new gaseous fuel unit that is subject to the work practice standard specified in Table 1 to this subpart, and you intend to use a fuel other than natural gas or equivalent to fire the affected unit, you must submit a notification of alternative fuel use within 48 hours of the declaration of a period of natural gas curtailment or supply interruption, as defined in § 63.7575. The notification must include the information specified in paragraphs (g)(1) through (5) of this section.

(1) Company name and address.

(2) Identification of the affected unit.

(3) Reason you are unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.

(4) Type of alternative fuel that you intend to use.

(5) Dates when the alternative fuel use is expected to begin and end.

§ 63.7555 What records must I keep?

(a) You must keep records according to paragraphs (a)(1) through (3) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in § 63.10(b)(2)(xiv).

(2) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests, fuel analyses, or other compliance demonstrations, performance evaluations, and opacity observations as required in § 63.10(b)(2)(viii).

(b) For each CEMS, CPMS, and COMS, you must keep records according to paragraphs (b)(1) through (5) of this section.

(1) Records described in § 63.10(b)(2)(vi) through (xi).

(2) Monitoring data for continuous opacity monitoring system during a performance evaluation as required in § 63.6(h)(7)(i) and (ii).

(3) Previous (*i.e.,* superseded) versions of the performance evaluation plan as required in § 63.8(d)(3).

(4) Request for alternatives to relative accuracy test for CEMS as required in § 63.8(f)(6)(i).

(5) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(c) You must keep the records required in Table 8 to this subpart including records of all monitoring data and calculated averages for applicable operating limits such as opacity, pressure drop, carbon monoxide, and pH to show continuous compliance with each emission limit, operating limit, and work practice standard that applies to you.

(d) For each boiler or process heater subject to an emission limit, you must also keep the records in paragraphs (d)(1) through (5) of this section.

(1) You must keep records of monthly fuel use by each boiler or process heater, including the type(s) of fuel and amount(s) used.

(2) You must keep records of monthly hours of operation by each boiler or process heater. This requirement applies only to limited-use boilers and process heaters.

(3) A copy of all calculations and supporting documentation of maximum chlorine fuel input, using Equation 5 of § 63.7530, that were done to demonstrate continuous compliance with the HCl emission limit, for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of HCl emission rates, using Equation 9 of § 63.7530, that were done to demonstrate compliance with the HCl emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or HCl emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate chlorine fuel input, or HCl emission rate, for each boiler and process heater.

(4) A copy of all calculations and supporting documentation of maximum TSM fuel input, using Equation 6 of § 63.7530, that were done to demonstrate continuous compliance with the TSM emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of TSM emission rates, using Equation 10 of § 63.7530, that were done to demonstrate compliance with the TSM emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum TSM fuel input or TSM emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate TSM fuel input, or TSM emission rates, for each boiler and process heater.

(5) A copy of all calculations and supporting documentation of maximum mercury fuel input, using Equation 7 of § 63.7530, that were done to demonstrate continuous compliance with the mercury emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of mercury emission rates, using Equation 11 of § 63.7530, that were done to demonstrate compliance with the mercury emission limit. Supporting documentation should

include results of any fuel analyses and basis for the estimates of maximum mercury fuel input or mercury emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate mercury fuel input, or mercury emission rates, for each boiler and process heater.

(e) If your boiler or process heater is subject to an emission limit or work practice standard in Table 1 to this subpart and has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent such that the unit is in one of the limited use subcategories, you must keep the records in paragraphs (e)(1) and (2) of this section.

(1) A copy of the federally enforceable permit that limits the annual capacity factor of the source to less than or equal to 10 percent.

(2) Fuel use records for the days the boiler or process heater was operating.

§ 63.7560 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1).

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records off site for the remaining 3 years.

Other Requirements and Information

§ 63.7565 What parts of the General Provisions apply to me?

Table 10 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

§ 63.7570 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities listed in paragraphs (b)(1) through (5) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency, however, the U.S. EPA retains oversight of this subpart and can take enforcement actions, as appropriate.

(1) Approval of alternatives to the non-opacity emission limits and work practice standards in § 63.7500(a) and (b) under § 63.6(g).

(2) Approval of alternative opacity emission limits in § 63.7500(a) under § 63.6(h)(9).

(3) Approval of major change to test methods in Table 5 to this subpart under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(4) Approval of major change to monitoring under § 63.8(f) and as defined in § 63.90.

(5) Approval of major change to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.7575 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in § 63.2 (the General Provisions), and in this section as follows:

Annual capacity factor means the ratio between the actual heat input to a boiler or process heater from the fuels burned during a calendar year, and the potential heat input to the boiler or process heater had it been operated for 8,760 hours during a year at the maximum steady state design heat input capacity.

Bag leak detection system means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter (*i.e.*, baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on electrodynamic, triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

Biomass fuel means unadulterated wood as defined in this subpart, wood residue, and wood products (*e.g.*, trees, tree stumps, tree limbs, bark, lumber, sawdust, sanderdust, chips, scraps, slabs, millings, and shavings); animal litter; vegetative agricultural and silvicultural materials, such as logging residues (slash), nut and grain hulls and chaff (*e.g.*, almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds.

Blast furnace gas fuel-fired boiler or process heater means an industrial/commercial/institutional boiler or process heater that receives 90 percent or more of its total heat input (based on an annual average) from blast furnace gas.

Boiler means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water. Waste heat boilers are excluded from this definition.

Coal means all solid fuels classifiable as anthracite, bituminous, sub-bituminous, or lignite by the American Society for Testing and Materials in ASTM D388–991 $^{\epsilon 1}$, ''Standard Specification for Classification of Coals by Rank ^{1}'' (incorporated by reference, see § 63.14(b)), coal refuse, and petroleum coke. Synthetic fuels derived from coal for the purpose of creating useful heat including but not limited to, solvent-refined coal, coal-oil mixtures, and coal-water mixtures, for the purposes of this subpart. Coal derived gases are excluded from this definition.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (6,000 Btu per pound) on a dry basis.

Commercial/institutional boiler means a boiler used in commercial establishments or institutional establishments such as medical centers, research centers, institutions of higher education, hotels, and laundries to provide electricity, steam, and/or hot water.

Construction/demolition material means waste building material that result from the construction or demolition operations on houses and commercial and industrial buildings.

Deviation. (1) Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(i) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard;

(ii) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(iii) Fails to meet any emission limit, operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless or whether or not such failure is permitted by this subpart.

(2) A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the

standard is up to the discretion of the entity responsible for enforcement of the standards.

Distillate oil means fuel oils, including recycled oils, that comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society for Testing and Materials in ASTM D396–02a, ''Standard Specifications for Fuel Oils [1]'' (incorporated by reference, see § 63.14(b)).

Dry scrubber means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material. Sorbent injection systems in fluidized bed boilers and process heaters are included in this definition.

Electric utility steam generating unit means a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 megawatts electrical output to any utility power distribution system for sale is considered an electric utility steam generating unit.

Electrostatic precipitator means an add-on air pollution control device used to capture particulate matter by charging the particles using an electrostatic field, collecting the particles using a grounded collecting surface, and transporting the particles into a hopper.

Fabric filter means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse.

Federally enforceable means all limitations and conditions that are enforceable by the EPA Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

Firetube boiler means a boiler in which hot gases of combustion pass through the tubes and water contacts the outside surfaces of the tubes.

Fossil fuel means natural gas, petroleum, coal, and any form of solid, liquid, or gaseous fuel derived from such materials.

Fuel type means each category of fuels that share a common name or classification. Examples include, but are not limited to, bituminous coal, subbituminous coal, lignite, anthracite, biomass, construction/demolition material, salt water laden wood, creosote treated wood, tires, residual oil. Individual fuel types received from different suppliers are not considered new fuel types except for construction/demolition material.

Gaseous fuel includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, refinery gas, and biogas. Blast furnace gas is exempted from this definition.

Heat input means heat derived from combustion of fuel in a boiler or process heater and does not include the heat input from preheated combustion air, recirculated flue gases, or exhaust gases from other sources such as gas turbines, internal combustion engines, kilns, etc.

Hot water heater means a closed vessel with a capacity of no more than 120 U.S. gallons in which water is heated by combustion of gaseous or liquid fuel and is withdrawn for use external to the vessel at pressures not exceeding 160 psig, including the apparatus by which the heat is generated and all controls and devices necessary to prevent water temperatures from exceeding 210°F (99°C).

Industrial boiler means a boiler used in manufacturing, processing, mining, and refining or any other industry to provide steam, hot water, and/or electricity.

Large gaseous fuel subcategory includes any watertube boiler or process heater that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, has a rated capacity of greater than 10 MMBtu per hour heat input, and has an annual capacity factor of greater than 10 percent.

Large liquid fuel subcategory includes any watertube boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has an annual capacity factor of greater than 10 percent. Large gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.

Large solid fuel subcategory includes any watertube boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has an annual capacity factor of greater than 10 percent.

Limited use gaseous fuel subcategory includes any watertube boiler or process heater that burns gaseous fuels not combined with any liquid or solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent.

Limited use liquid fuel subcategory includes any watertube boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent. Limited use gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.

Limited use solid fuel subcategory includes any watertube boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent.

Liquid fossil fuel means petroleum, distillate oil, residual oil and any form of liquid fuel derived from such material.

Liquid fuel includes, but is not limited to, distillate oil, residual oil, waste oil, and process liquids.

Minimum pressure drop means 90 percent of the lowest test-run average pressure drop measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum scrubber effluent pH means 90 percent of the lowest test-run average effluent pH measured at the outlet of the wet scrubber according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable hydrogen chloride emission limit.

Minimum scrubber flow rate means 90 percent of the lowest test-run average flow rate measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum sorbent flow rate means 90 percent of the lowest test-run average sorbent (or activated carbon) flow rate measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.

Minimum voltage or amperage means 90 percent of the lowest test-run average voltage or amperage to the electrostatic precipitator measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.

Natural gas means:

(1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or

(2) Liquid petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835–03a, ''Standard Specification for Liquid Petroleum Gases'' (incorporated by reference, see § 63.14(b)).

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

Particulate matter means any finely divided solid or liquid material, other than uncombined water, as measured by the test methods specified under this subpart, or an alternative method.

Period of natural gas curtailment or supply interruption means a period of time during which the supply of natural gas to an affected facility is halted for reasons beyond the control of the facility. An increase in the cost or unit price of natural gas does not constitute a period of natural gas curtailment or supply interruption.

Process heater means an enclosed device using controlled flame, that is not a boiler, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material for use in a process unit, instead of generating steam. Process heaters are devices in which the combustion gases do not directly come into contact with process materials. Process heaters do not include units used for comfort heat or space heat, food preparation for on-site consumption, or autoclaves.

Residual oil means crude oil, and all fuel oil numbers 4, 5 and 6, as defined by the American Society for Testing and Materials in ASTM D396–02a, ''Standard Specifications for Fuel Oils [1]'' (incorporated by reference, see § 63.14(b)).

Responsible official means responsible official as defined in 40 CFR 70.2.

Small gaseous fuel subcategory includes any firetube boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment or gas supply emergencies, and any boiler or process heater that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, and has a rated capacity of less than or equal to 10 MMBtu per hour heat input.

Small liquid fuel subcategory includes any firetube boiler that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, and any boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, and has a rated capacity of less than or equal to 10 MMBtu per hour heat input. Small gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.

Small solid fuel subcategory includes any firetube boiler that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, and any other boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels and has a rated capacity of less than or equal to 10 MMBtu per hour heat input.

Solid fuel includes, but is not limited to, coal, wood, biomass, tires, plastics, and other nonfossil solid materials.

Temporary boiler means any gaseous or liquid fuel boiler that is designed to, and is capable of, being carried or moved from one location to another. A temporary boiler that remains at a location for more than 180 consecutive days is no longer considered to be a temporary boiler. Any temporary boiler that replaces a temporary boiler at a location and is intended to perform the same or similar function will be included in calculating the consecutive time period.

Total selected metals means the combination of the following metallic HAP: arsenic, beryllium, cadmium, chromium, lead, manganese, nickel and selenium.

Unadulterated wood means wood or wood products that have not been painted, pigment-stained, or pressure treated with compounds such as chromate copper arsenate, pentachlorophenol, and creosote. Plywood, particle board, oriented strand board, and other types of wood products bound by glues and resins are included in this definition.

Waste heat boiler means a device that recovers normally unused energy and converts it to usable heat. Waste heat boilers incorporating duct or supplemental burners that are designed to supply 50 percent or more of the total rated heat input capacity of the waste heat boiler are not considered waste heat boilers, but are considered boilers. Waste heat boilers are also referred to as heat recovery steam generators.

Watertube boiler means a boiler in which water passes through the tubes and hot gases of combustion pass over the outside surfaces of the tubes.

Wet scrubber means any add-on air pollution control device that mixes an aqueous stream or slurry with the exhaust gases from a boiler or process heater to control emissions of particulate matter and/or to absorb and neutralize acid gases, such as hydrogen chloride.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

Tables to Subpart DDDDD of Part 63

TABLE 1 TO SUBPART DDDDD OF PART 63.—EMISSION LIMITS AND WORK PRACTICE STANDARDS

As stated in § 63.7500, you must comply with the following applicable emission limits and work practice standards:

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .
1. New or reconstructed large solid fuel	a. Particulate Matter (or Total Selected Metals).	0.025 lb per MMBtu of heat input; or (0.0003 lb per MMBtu of heat input).
	b. Hydrogen Chloride	0.02 lb per MMBtu of heat input.
	c. Mercury	0.000003 lb per MMBtu of heat input.
	d. Carbon Monoxide	400 ppm by volume on a dry basis corrected to 7 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr).

TABLE 1 TO SUBPART DDDDD OF PART 63.—EMISSION LIMITS AND WORK PRACTICE STANDARDS—Continued

As stated in § 63.7500, you must comply with the following applicable emission limits and work practice standards:

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .
2. New or reconstructed limited use solid fuel ...	a. Particulate Matter (or Total Selected Metals).	0.025 lb per MMBtu of heat input; or (0.0003 lb per MMBtu of heat input).
	b. Hydrogen Chloride	0.02 lb per MMBtu of heat input.
	c. Mercury	0.000003 lb per MMBtu of heat input.
	d. Carbon Monoxide	400 ppm by volume on a dry basis corrected to 7 percent oxygen (3-run average).
3. New or reconstructed small solid fuel	a. Particulate Matter (or Total Selected Metals).	0.025 lb per MMBtu of heat input; or (0.0003 lb per MMBtu of heat input).
	b. Hydrogen Chloride	0.02 lb per MMBtu of heat input.
	c. Mercury	0.000003 lb per MMBtu of heat input.
4. New reconstructed large liquid fuel	a. Particulate Matter	0.03 lb per MMBtu of heat input.
	b. Hydrogen Chloride	0.0005 lb per MMBtu of heat input.
	c. Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr).
5. New or reconstructed limited use liquid fuel ..	a. Particulate Matter	0.03 lb per MMBtu of heat input.
	b. Hydrogen Chloride	0.0009 lb per MMBtu of heat input.
	c. Carbon Monoxide	400 ppm by volume on a dry basis liquid corrected to 3 percent oxygen (3-run average).
6. New or reconstructed small liquid fuel	a. Particulate Matter	0.03 lb per MMBtu of heat input.
	b. Hydrogen Chloride	0.0009 lb per MMBtu of heat input.
7. New reconstructed large gaseous fuel	Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr).
8. New or reconstructed limited use gaseous fuel.	Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen (3-run average).
9. Existing large solid fuel	a. Particulate Matter (or Total Selected Metals).	0.07 lb per MMBtu of heat input; or (0.001 lb per MMBtu of heat input).
	b. Hydrogen Chloride	0.09 lb per MMBtu of heat input.
	c. Mercury	0.000009 lb per MMBtu of heat input.
10. Existing limited use solid fuel	Particulate Matter (or Total Selected Metals) ..	0.21 lb per MMBtu of heat input; or (0.004 lb per MMBtu of heat input).

TABLE 2 TO SUBPART DDDDD OF PART 63.—OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS WITH PARTICULATE MATTER EMISSION LIMITS

As stated in § 63.7500, you must comply with the applicable operating limits:

If you demonstrate compliance with applicable particulate matter emission limits using . . .	You must meet these operating limits . . .
1. Wet scrubber control	a. Maintain the minimum pressure drop and liquid flow-rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for particulate matter.
2. Fabric filter control	a. Install and operate a bag leak detection system according to § 63.7525 and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during each 6-month period; or
	b. This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).
3. Electrostatic precipitator control	a. This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average); or

TABLE 2 TO SUBPART DDDDD OF PART 63.—OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS WITH PARTICULATE MATTER EMISSION LIMITS—Continued

As stated in § 63.7500, you must comply with the applicable operating limits:

If you demonstrate compliance with applicable particulate matter emission limits using . . .	You must meet these operating limits . . .
	b. This option is only for boilers and process heaters that operate additional wet control systems. Maintain the minimum voltage and secondary current or total power input of the electrostatic precipitator at or above the operating limits established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for particulate matter.
4. Any other control type	This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).

TABLE 3 TO SUBPART DDDDD OF PART 63.—OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS WITH MERCURY EMISSION LIMITS AND BOILERS AND PROCESS HEATERS THAT CHOOSE TO COMPLY WITH THE ALTERNATIVE TOTAL SELECTED METALS EMISSION LIMITS

As stated in § 63.7500, you must comply with the applicable operating limits:

If you demonstrate compliance with applicable mercury and/or total selected metals emission limits using . . .	You must meet these operating limits . . .
1. Wet scrubber control	Maintain the minimum pressure drop and liquid flow-rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limits for mercury and/or total selected metals.
2. Fabric filter control	a. Install and operate a bag leak detection system according to § 63.7525 and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period; or
	b. This option is for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).
3. Electrostatic precipitator control	a. This option is for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average); or
	b. This option is only for boilers and process heaters that operate additional wet control systems. Maintain the minimum voltage and secondary current or total power input of the electrostatic precipitator at or above the operating limits established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limits for mercury and/or total selected metals.
4. Dry scrubber or carbon injection control	Maintain the minimum sorbent or carbon injection rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for mercury.
5. Any other control type	This option is only for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).
6. Fuel analysis	Maintain the fuel type or fuel mixture such that the mercury and/or total selected metals emission rates calculated according to § 63.7530(d)(4) and/or (5) is less than the applicable emission limits for mercury and/or total selected metals.

TABLE 4 TO SUBPART DDDDD OF PART 63.—OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS WITH HYDROGEN CHLORIDE EMISSION LIMITS

As stated in § 63.7500, you must comply with the following applicable operating limits:

If you demonstrate compliance with applicable hydrogen chloride emission limits using . . .	You must meet these operating limits . . .
1. Wet scrubber control	Maintain the minimum scrubber effluent pH, pressure drop, and liquid flow-rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for hydrogen chloride.
2. Dry scrubber control	Maintain the minimum sorbent injection rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for hydrogen chloride.
3. Fuel analysis	Maintain the fuel type or fuel mixture such that the hydrogen chloride emission rate calculated according to § 63.7530(d)(3) is less than the applicable emission limit for hydrogen chloride.

TABLE 5 TO SUBPART DDDDD OF PART 63.—PERFORMANCE TESTING REQUIREMENTS

As stated in § 63.7520, you must comply with the following requirements for performance test for existing, new or reconstructed affected sources:

To conduct a performance test for the following pollutant . . .	You must . . .	Using . . .
1. Particulate Matter	a. Select sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G in appendix A to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see § 63.14(i)).
	d. Measure the moisture content of the stack gas.	Method 4 in appendix A to part 60 of this chapter.
	e. Measure the particulate matter emission concentration.	Method 5 or 17 (positive pressure fabric filters must use Method 5D) in appendix A to part 60 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of this chapter.
2. Total selected metals	a. Select sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G in appendix A to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see § 63.14(i)).
	d. Measure the moisture content of the stack gas.	Method 4 in appendix A to part 60 of this chapter.
	e. Measure the total selected metals emission concentration.	Method 29 in appendix A to part 60 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of this chapter.
3. Hydrogen chloride	a. Select sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G in appendix A to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see § 63.14(i)).
	d. Measure the moisture content of the stack gas.	Method 4 in appendix A to part 60 of this chapter.
	e. Measure the hydrogen chloride emission concentration.	Method 26 or 26A in appendix A to part 60 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of this chapter.
4. Mercury	a. Select sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G in appendix A to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see § 62.14(i)).

TABLE 5 TO SUBPART DDDDD OF PART 63.—PERFORMANCE TESTING REQUIREMENTS—Continued

As stated in § 63.7520, you must comply with the following requirements for performance test for existing, new or reconstructed affected sources:

To conduct a performance test for the following pollutant . . .	You must . . .	Using . . .
	d. Measure the moisture content of the stack gas.	Method 4 in appendix A to part 60 of this chapter.
	e. Measure the mercury emission concentration.	Method 29 in appendix A to part 60 of this chapter or Method 101A in appendix B to part 61 of this chapter or ASTM Method D6784–02 (IBR, see § 63.14(b)).
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of this chapter.
5. Carbon Monoxide	a. Select the sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of this chapter.
	b. Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of this chapter, or ASTM D6522–00 (IBR, see § 63.14(b)), or ASME PTC 19, Part 10 (1981) (IBR, see § 63.14(i)).
	c. Measure the moisture content of the stack gas.	Method 4 in appendix A to part 60 of this chapter.
	d. Measure the carbon monoxide emission concentration.	Method 10, 10A, or 10B in appendix A to part 60 of this chapter, or ASTM D6522–00 (IBR, see § 63.14(b)) when the fuel is natural gas.

TABLE 6 TO SUBPART DDDDD OF PART 63.—FUEL ANALYSIS REQUIREMENTS

As stated in § 63.7521, you must comply with the following requirements for fuel analysis testing for existing, new or reconstructed affected sources:

To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
1. Mercury	a. Collect fuel samples	Procedure in § 63.7521(c) or ASTM D2234–00 ∈1 (for coal)(IBR, see § 63.14(b)) or ASTM D6323–98 (2003)(for biomass)(IBR, see § 63.14(b)) or equivalent.
	b. Composite fuel samples	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples	SW–846–3050B (for solid samples) or SW–846–3020A (for liquid samples) or ASTM D2013–01 (for coal) (IBR, see § 63.14(b)) or ASTM D5198–92 (2003) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865–03a (for coal)(IBR, see § 63.14(b)) or ASTM E711–87 (1996) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173–02 (IBR, see § 63.14(b)) or ASTM E871–82 (1998)(IBR, see § 63.14(b)) or equivalent.
	f. Measure mercury concentration in fuel sample.	ASTM D3684–01 (for coal)(IBR, see § 63.14(b)) or SW–846–7471A (for solid samples) or SW–846 7470A (for liquid samples).
	g. Convert concentrations into units of pounds of pollutant per MMBtu of heat content.	
2. Total selected metals	a. Collect fuel samples	Procedure in § 63.7521(c) or ASTM D2234–00 ∈1 (for coal)(IBR, see § 63.14(b)) or ASTM D6323–98 (2003) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	b. Composite fuel samples	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples	SW–846–3050B (for solid samples) or SW–846–3020A (for liquid samples) or ASTM D2013–01 (for coal)(IBR, see § 63.14(b)) or ASTM D5198–92 (2003)(for biomass)(IBR, see § 63.14(b)) or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865–03a (for coal)(IBR, see § 63.14(b)) or ASTM E 711–87 (for biomass)(IBR, see § 63.14(b)) or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173–02 (IBR, see § 63.14(b)) or ASTM E871 (IBR, see § 63.14(b)) or equivalent.

TABLE 6 TO SUBPART DDDDD OF PART 63.—FUEL ANALYSIS REQUIREMENTS—Continued

As stated in § 63.7521, you must comply with the following requirements for fuel analysis testing for existing, new or reconstructed affected sources:

To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
	f. Measure total selected metals concentration in fuel sample.	SW–846–6010B or ASTM D3683–94 (2000) (for coal) (IBR, see § 63.14(b)) or ASTM E885–88 (1996) (for biomass)(IBR, see § 63.14(b)).
	g. Convert concentrations into units of pounds of pollutant per MMBtu of heat content.	
3. Hydrogen chloride	a. Collect fuel samples	Procedure in § 63.7521(c) or ASTM D2234∈1 (for coal)(IBR, see § 63.14(b)) or ASTM D6323–98 (2003) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	b. Composite fuel samples	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples	SW–846–3050B (for solid samples) or SW–846–3020A (for liquid samples) or ASTM D2013–01 (for coal)(IBR, see § 63.14(b)) or ASTM D5198–92 (2003) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865–03a (for coal)(IBR, see § 63.14(b)) or ASTM E711–87 (1996) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173–02 (IBR, see § 63.14(b)) or ASTM E871–82 (1998)(IBR, see § 63.14(b)) or equivalent.
	f. Measure chlorine concentration in fuel sample.	SW–846–9250 or ASTM E776–87 (1996) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	g. Convert concentrations into units of pounds of pollutant per MMBtu of heat content.	

TABLE 7 TO SUBPART DDDDD OF PART 63.—ESTABLISHING OPERATING LIMITS

As stated in § 63.7520, you must comply with the following requirements for establishing operating limits:

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
1. Particulate matter, mercury, or total selected metals.	a. Wet scrubber operating parameters.	i. Establish a site-specific minimum pressure drop and minimum flow rate operating limit according to § 63.7530(c).	(1) Data from the pressure drop and liquid flow rate monitors and the particulate matter, mercury, or total selected metals performance test.	(a) You must collect pressure drop and liquid flow-rate data every 15 minutes during the entire period of the performance tests; (b) Determine the average pressure drop and liquid flow-rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.
	b. Electrostatic precipitator operating parameters (option only for units with additional wet scrubber control).	i. Establish a site-specific minimum voltage and secondary current or total power input according to § 63.7530(c).	(1) Data from the pressure drop and liquid flow rate monitors and the particulate matter, mercury, or total selected metals performance test.	(a) You must collect voltage and secondary current or total power input data every 15 minutes during the entire period of the performance tests; (b) Determine the average voltage and secondary current or total power input for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.

TABLE 7 TO SUBPART DDDDD OF PART 63.—ESTABLISHING OPERATING LIMITS—Continued

As stated in § 63.7520, you must comply with the following requirements for establishing operating limits:

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
2. Hydrogen Chloride ...	a. Wet scrubber operating parameters.	i. Establish a site-specific minimum pressure drop and minimum flow rate operating limit according to § 63.7530(c).	(1) Data from the pH, pressure drop, and liquid flow-rate monitors and the hydrogen chloride performance test.	(a) You must collect pH, pressure drop, and liquid flow-rate data every 15 minutes during the entire period of the performance tests; (b) Determine the average pH, pressure drop, and liquid flow-rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.
	b. Dry scrubber operating parameters.	i. Establish a site-specific minimum sorbent injection rate operating limit according to § 63.7530(c).	(1) Data from the sorbent injection rate monitors and hydrogen chloride performance test.	(a) You must collect sorbent injection rate data every 15 minutes during the entire period of the performance tests; (b) Determine the average sorbent injection rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.

TABLE 8 TO SUBPART DDDDD OF PART 63.—DEMONSTRATING CONTINUOUS COMPLIANCE

As stated in § 63.7540, you must show continuous compliance with the emission limitations for affected sources according to the following:

If you must meet the following operating limits or work practice standards . . .	You must demonstrate continuous compliance by . . .
1. Opacity	a. Collecting the opacity monitoring system data according to §§ 63.7525(b) and 63.7535; and b. Reducing the opacity monitoring data to 6-minute averages; and c. Maintaining opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent for existing sources; or maintaining opacity to less than or equal to 10 percent (1-hour block average) for new sources.
2. Fabric Filter Bag Leak Detection Operation	Installing and operating a bag leak detection system according to § 63.7525 and operating the fabric filter such that the requirements in § 63.7540(a)(9) are met.
3. Wet Scrubber Pressure Drop and Liquid Flow-rate	a. Collecting the pressure drop and liquid flow rate monitoring system data according to §§ 63.7525 and 63.7535; and b. Reducing the data to 3-hour block averages; and c. Maintaining the 3-hour average pressure drop and liquid flow-rate at or above the operating limits established during the performance test according to § 63.7530(c).
4. Wet Scrubber pH	a. Collecting the pH monitoring system data according to §§ 63.7525 and 63.7535; and b. Reducing the data to 3-hour block averages; and c. Maintaining the 3-hour average pH at or above the operating limit established during the performance test according to § 63.7530(c).
5. Dry Scrubber Sorbent or Carbon Injection Rate	a. Collecting the sorbent or carbon injection rate monitoring system data for the dry scrubber according to §§ 63.7525 and 63.7535; and b. Reducing the data to 3-hour block averages; and c. Maintaining the 3-hour average sorbent or carbon injection rate at or above the operating limit established during the performance test according to §§ 63.7530(c).
6. Electrostatic Precipitator Secondary Current and Voltage or Total Power Input.	a. Collecting the secondary current and voltage or total power input monitoring system data for the electrostatic precipitator according to §§ 63.7525 and 63.7535; and b. Reducing the data to 3-hour block averages; and

TABLE 8 TO SUBPART DDDDD OF PART 63.—DEMONSTRATING CONTINUOUS COMPLIANCE—Continued

As stated in § 63.7540, you must show continuous compliance with the emission limitations for affected sources according to the following:

If you must meet the following operating limits or work practice standards . . .	You must demonstrate continuous compliance by . . .
7. Fuel Pollutant Content	c. Maintaining the 3-hour average secondary current and voltage or total power input at or above the operating limits established during the performance test according to §§ 63.7530(c). a. Only burning the fuel types and fuel mixtures used to demonstrate compliance with the applicable emission limit according to § 63.7530(c) or (d) as applicable; and b. Keeping monthly records of fuel use according to § 63.7540(a).

TABLE 9 TO SUBPART DDDDD OF PART 63.—REPORTING REQUIREMENTS

As stated in § 63.7550, you must comply with the following requirements for reports:

You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. Information required in § 63.7550(c)(1) through (11); and b. If there are no deviations from any emission limitation (emission limit and operating limit) that applies to you and there are no deviations from the requirements for work practice standards in Table 8 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in § 63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period; and c. If you have a deviation from any emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report must contain the information in § 63.7550(d). If there were periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control, as specified in § 63.8(c)(7), the report must contain the information in § 63.7550(e); and d. If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in § 63.10(d)(5)(i)	Semiannually according to the requirements in § 63.7550(b).
2. An immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard.	a. Actions taken for the event; and	i. By fax or telephone within 2 working days after starting actions inconsistent with the plan; and
	b. The information in § 63.10(d)(5)(ii)	ii. By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority.

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.1	Applicability	Initial Applicability Determination; Applicability After Standard Established; Permit Requirements; Extensions, Notifications.	Yes.
§ 63.2	Definitions	Definitions for part 63 standards	Yes.
§ 63.3	Units and Abbreviations	Units and abbreviations for part 63 standards.	Yes.
§ 63.4	Prohibited Activities	Prohibited Activities; Compliance date; Circumvention, Severability.	Yes.
§ 63.5	Construction/Reconstruction	Applicability; applications; approvals	Yes.
§ 63.6(a)	Applicability	GP apply unless compliance extension; and GP apply to area sources that become major.	Yes.
§ 63.6(b)(1)–(4)	Compliance Dates for New and Reconstructed sources.	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for 112(f).	Yes.
§ 63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal.	Yes.
§ 63.6(b)(6)	[Reserved].		
§ 63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major.	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source.	Yes.
§ 63.6(c)(1)–(2)	Compliance Dates for Existing Sources	Comply according to date in subpart, which must be no later than 3 years after effective date; and for 112(f) standards, comply within 90 days of effective date unless compliance extension.	Yes.
§ 63.6(c)(3)–(4)	[Reserved].		
§ 63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major.	Area sources that become major must comply with major source standards by date indicated in subpart or by equivalent time period (for example, 3 years).	Yes.
§ 63.6(d)	[Reserved].		
§ 63.6(e)(1)–(2)	Operation & Maintenance	Operate to minimize emissions at all times; and Correct malfunctions as soon as practicable; and Operation and maintenance requirements independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met.	Yes.
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction Plan (SSMP).	Requirement for SSM and startup, shutdown, malfunction plan; and content of SSMP.	Yes.
§ 63.6(f)(1)	Compliance Except During SSM	Comply with emission standards at all times except during SSM.	Yes.
§ 63.6(f)(2)–(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection.	Yes.
§ 63.6(g)(1)–(3)	Alternative Standard	Procedures for getting an alternative standard.	Yes.
§ 63.6(h)(1)	Compliance with Opacity/VE Standards	Comply with opacity/VE emission limitations at all times except during SSM.	Yes.
§ 63.6(h)(2)(i)	Determining Compliance with Opacity/Visible Emission (VE) Standards.	If standard does not state test method, use Method 9 for opacity and Method 22 for VE.	No.
§ 63.6(h)(2)(ii)	[Reserved].		
§ 63.6(h)(2)(iii)	Using Previous Tests to Demonstrate Compliance with Opacity/VE Standards	Criteria for when previous opacity/VE testing can be used to show compliance with this subpart.	Yes.
§ 63.6(h)(3)	[Reserved].		
§ 63.6(h)(4)	Notification of Opacity/VE Observation Date.	Notify Administrator of anticipated date of observation.	No.
§ 63.6(h)(5)(i),(iii)–(v)	Conducting Opacity/VE Observations	Dates and Schedule for conducting opacity/VE observations.	No.

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD—Continued

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.6(h)(5)(ii)	Opacity Test Duration and Averaging Times.	Must have at least 3 hours of observation with thirty, 6-minute averages.	No.
§ 63.6(h)(6)	Records of Conditions During Opacity/VE observations.	Keep records available and allow Administrator to inspect.	No.
§ 63.6(h)(7)(i)	Report continuous opacity monitoring system Monitoring Data from Performance Test.	Submit continuous opacity monitoring system data with other performance test data.	Yes.
§ 63.6(h)(7)(ii)	Using continuous opacity monitoring system instead of Method 9.	Can submit continuous opacity monitoring system data instead of Method 9 results even if subpart requires Method 9, but must notify Administrator before performance test.	No.
§ 63.6(h)(7)(iii)	Averaging time for continuous opacity monitoring system during performance test.	To determine compliance, must reduce continuous opacity monitoring system data to 6-minute averages.	Yes.
§ 63.6(h)(7)(iv)	Continuous opacity monitoring system requirements.	Demonstrate that continuous opacity monitoring system performance evaluations are conducted according to §§ 63.8(e), continuous opacity monitoring systems are properly maintained and operated according to § 63.8(c) and data quality as § 63.8(d).	Yes.
§ 63.6(h)(7)(v)	Determining Compliance with Opacity/VE Standards.	Continuous opacity monitoring system is probative but not conclusive evidence of compliance with opacity standard, even if Method 9 observation shows otherwise. Requirements for continuous opacity monitoring system to be probative evidence-proper maintenance, meeting PS 1, and data have not been altered.	Yes.
§ 63.6(h)(8)	Determining Compliance with Opacity/VE Standards.	Administrator will use all continuous opacity monitoring system, Method 9, and Method 22 results, as well as information about operation and maintenance to determine compliance.	Yes.
§ 63.6(h)(9)	Adjusted Opacity Standard	Procedures for Administrator to adjust an opacity standard.	Yes.
§ 63.6(i)(1)–(14)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension.	Yes.
§ 63.6(j)	Presidential Compliance Exemption	President may exempt source category from requirement to comply with rule.	Yes.
§ 63.7(a)(1)	Performance Test Dates	Dates for Conducting Initial Performance Testing and Other Compliance Demonstrations.	Yes.
§ 63.7(a)(2)	Performance Test Dates	New source with initial startup date before effective date has 180 days after effective date to demonstrate compliance	Yes.
§ 63.7(a)(2)(ii–viii)	[Reserved].		
§ 63.7(a)(2)(ix)	Performance Test Dates	1. New source that commenced construction between proposal and promulgation dates, when promulgated standard is more stringent than proposed standard, has 180 days after effective date or 180 days after startup of source, whichever is later, to demonstrate compliance; and.	Yes.
		2. If source initially demonstrates compliance with less stringent proposed standard, it has 3 years and 180 days after the effective date of the standard or 180 days after startup of source, whichever is later, to demonstrate compliance with promulgated standard.	No.
§ 63.7(a)(3)	Section 114 Authority	Administrator may require a performance test under CAA Section 114 at any time.	Yes.

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD—Continued

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test.	No.
§ 63.7(b)(2)	Notification of Rescheduling	If rescheduling a performance test is necessary, must notify Administrator 5 days before scheduled date of rescheduled date.	Yes.
§ 63.7(c)	Quality Assurance/Test Plan	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with: test plan approval procedures; and performance audit requirements; and internal and external QA procedures for testing.	Yes.
§ 63.7(d)	Testing Facilities	Requirements for testing facilities	Yes.
§ 63.7(e)(1)	Conditions for Conducting Performance Tests.	1. Performance tests must be conducted under representative conditions; and	No.
		2. Cannot conduct performance tests during SSM; and	Yes.
		3. Not a deviation to exceed standard during SSM; and	Yes.
		4. Upon request of Administrator, make available records necessary to determine conditions of performance tests.	Yes.
§ 63.7(e)(2)	Conditions for Conducting Performance Tests.	Must conduct according to rule and EPA test methods unless Administrator approves alternative.	Yes.
§ 63.7(e)(3)	Test Run Duration	Must have three separate test runs; and Compliance is based on arithmetic mean of three runs; and conditions when data from an additional test run can be used.	Yes.
§ 63.7(e)(4)	Interaction with other sections of the Act	Nothing in § 63.7(e)(1) through (4) can abrogate the Administrator's authority to require testing under Section 114 of the Act.	Yes.
§ 63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an alternative test method.	Yes.
§ 63.7(g)	Performance Test Data Analysis	Must include raw data in performance test report; and must submit performance test data 60 days after end of test with the Notification of Compliance Status; and keep data for 5 years.	Yes.
§ 63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test.	Yes.
§ 63.8(a)(1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard.	Yes.
§ 63.8(a)(2)	Performance Specifications	Performance Specifications in appendix B of part 60 apply.	Yes.
§ 63.8(a)(3)	[Reserved].		
§ 63.8(a)(4)	Monitoring with Flares	Unless your rule says otherwise, the requirements for flares in § 63.11 apply.	No.
§63.8(b)(1)(i)–(ii)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative.	Yes.
§ 63.8(b)(1)(iii)	Monitoring	Flares not subject to this section unless otherwise specified in relevant standard.	No.
§ 63.8(b)(2)–(3)	Multiple Effluents and Multiple Monitoring Systems.	Specific requirements for installing monitoring systems; and must install on each effluent before it is combined and before it is released to the atmosphere unless Administrator approves otherwise; and if more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup.	Yes.
§ 63.8(c)(1)	Monitoring System Operation and Maintenance.	Maintain monitoring system in a manner consistent with good air pollution control practices.	Yes.

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD—Continued

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.8(c)(1)(i)	Routine and Predictable SSM	Maintain and operate CMS according to § 63.6(e)(1).	Yes.
§ 63.8(c)(1)(ii)	SSM not in SSMP	Must keep necessary parts available for routine repairs of CMSs.	Yes.
§ 63.8(c)(1)(iii)	Compliance with Operation and Maintenance Requirements.	Must develop and implement an SSMP for CMSs.	Yes.
§ 63.8(c)(2)–(3)	Monitoring System Installation	Must install to get representative emission and parameter measurements; and must verify operational status before or at performance test.	Yes.
§ 63.8(c)(4)	Continuous Monitoring System (CMS) Requirements.	CMSs must be operating except during breakdown, out-of-control, repair, maintenance, and high-level calibration drifts.	No.
§ 63.8(c)(4)(i)	Continuous Monitoring System (CMS) Requirements.	Continuous opacity monitoring system must have a minimum of one cycle of sampling and analysis for each successive 10-second period and one cycle of data recording for each successive 6-minute period.	Yes.
§ 63.8(c)(4)(ii)	Continuous Monitoring System (CMS) Requirements.	Continuous emissions monitoring system must have a minimum of one cycle of operation for each successive 15-minute period.	No.
§ 63.8(c)(5)	Continuous Opacity Monitoring system (COMS) Requirements.	Must do daily zero and high level calibrations.	Yes.
§ 63.8(c)(6)	Continuous Monitoring System (CMS) Requirements.	Must do daily zero and high level calibrations.	No.
§ 63.8(c)(7)–(8)	Continuous Monitoring Systems Requirements.	Out-of-control periods, including reporting	Yes.
§ 63.8(d)	Continuous Monitoring Systems Quality Control.	Requirements for continuous monitoring systems quality control, including calibration, etc.; and must keep quality control plan on record for the life of the affected source. Keep old versions for 5 years after revisions.	Yes.
§ 63.8(e)	Continuous monitoring systems Performance Evaluation.	Notification, performance evaluation test plan, reports.	Yes.
§ 63.8(f)(1)–(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring.	Yes.
§ 63.8(f)(6)	Alternative to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy tests for continuous emissions monitoring system.	No.
§ 63.8(g)(1)–(4)	Data Reduction	Continuous opacity monitoring system 6-minute averages calculated over at least 36 evenly spaced data points; and continuous emissions monitoring system 1-hour averages computed over at least 4 equally spaced data points.	Yes.
§ 63.8(g)(5)	Data Reduction	Data that cannot be used in computing averages for continuous emissions monitoring system and continuous opacity monitoring system.	No.
§ 63.9(a)	Notification Requirements	Applicability and State Delegation	Yes.
§ 63.9(b)(1)–(5)	Initial Notifications	Submit notification 120 days after effective date; and Notification of intent to construct/reconstruct; and Notification of commencement of construct/reconstruct; Notification of startup; and Contents of each.	Yes.
§ 63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed BACT/LAER.	Yes.
§ 63.9(d)	Notification of Special Compliance Requirements for New Source.	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date.	Yes.
§ 63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	No.

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD—Continued

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.9(f)	Notification of VE/Opacity Test	Notify Administrator 30 days prior	No.
§ 63.9(g)	Additional Notifications When Using Continuous Monitoring Systems.	Notification of performance evaluation; and notification using continuous opacity monitoring system data; and notification that exceeded criterion for relative accuracy.	Yes.
§ 63.9(h)(1)–(6)	Notification of Compliance Status	Contents; and due 60 days after end of performance test or other compliance demonstration, and when to submit to Federal vs. State authority.	Yes.
§ 63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change in when notifications must be submitted.	Yes.
§ 63.9(j)	Change in Previous Information	Must submit within 15 days after the change.	Yes.
§ 63.10(a)	Recordkeeping/Reporting	Applies to all, unless compliance extension; and when to submit to Federal vs. State authority; and procedures for owners of more than 1 source.	Yes.
§ 63.10(b)(1)	Recordkeeping/Reporting	General Requirements; and keep all records readily available and keep for 5 years.	Yes.
§ 63.10(b)(2)(i)–(v)	Records related to Startup, Shutdown, and Malfunction.	Occurrence of each of operation (process, equipment); and occurrence of each malfunction of air pollution equipment; and maintenance of air pollution control equipment; and actions during startup, shutdown, and malfunction.	Yes.
§ 63.10(b)(2)(vi) and (x–xi)	Continuous monitoring systems Records	Malfunctions, inoperative, out-of-control; and calibration checks; and adjustments, maintenance.	Yes.
§ 63.10(b)(2)(vii)–(ix)	Records	Measurements to demonstrate compliance with emission limitations; and performance test, performance evaluation, and visible emission observation results; and measurements to determine conditions of performance tests and performance evaluations.	Yes.
§ 63.10(b)(2)(xii)	Records	Records when under waiver	Yes.
§ 63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test.	No.
§ 63.10(b)(2)(xiv)	Records	All documentation supporting Initial Notification and Notification of Compliance Status.	Yes.
§ 63.10(b)(3)	Records	Applicability Determinations	Yes.
§ 63.10(c)(1),(5)–(8),(10)–(15)	Records	Additional Records for continuous monitoring systems.	Yes.
§ 63.10(c)(7)–(8)	Records	Records of excess emissions and parameter monitoring exceedances for continuous monitoring systems.	No.
§ 63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes.
§ 63.10(d)(2)	Report of Performance Test Results	When to submit to Federal or State authority.	Yes.
§ 63.10(d)(3)	Reporting Opacity or VE Observations	What to report and when	Yes.
§ 63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension.	Yes.
§ 63.10(d)(5)	Startup, Shutdown, and Malfunction Reports.	Contents and submission	Yes.
§ 63.10(e)(1)(2)	Additional continuous monitoring systems Reports.	Must report results for each CEM on a unit; and written copy of performance evaluation; and 3 copies of continuous opacity monitoring system performance evaluation.	Yes.
§ 63.10(e)(3)	Reports	Excess Emission Reports	No.
§ 63.10(e)(3)(i–iii)	Reports	Schedule for reporting excess emissions and parameter monitor exceedance (now defined as deviations).	No.

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD—Continued

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.10(e)(3)(iv–v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedance (now defined as deviations); and provision to request semiannual reporting after compliance for one year; and submit report by 30th day following end of quarter or calendar half; and if there has not been an exceedance or excess emission (now defined as deviations), report contents is a statement that there have been no deviations.	No.
§ 63.10(e)(3)(iv–v)	Excess Emissions Reports	Must submit report containing all of the information in § 63.10(c)(5–13), § 63.8(c)(7–8).	No.
§ 63.10(e)(3)(vi–viii)	Excess Emissions Report and Summary Report.	Requirements for reporting excess emissions for continuous monitoring systems (now called deviations); Requires all of the information in § 63.10(c)(5–13), § 63.8(c)(7–8).	No.
§ 63.10(e)(4)	Reporting continuous opacity monitoring system data.	Must submit continuous opacity monitoring system data with performance test data.	Yes.
§ 63.10(f)	Waiver for Recordkeeping/Reporting	Procedures for Administrator to waive	Yes.
§ 63.11	Flares	Requirements for flares	No.
§ 63.12	Delegation	State authority to enforce standards	Yes.
§ 63.13	Addresses	Addresses where reports, notifications, and requests are sent.	Yes.
§ 63.14	Incorporation by Reference	Test methods incorporated by reference	Yes.
§ 63.15	Availability of Information	Public and confidential Information	Yes.

Appendix A to Subpart DDDDD—Methodology and Criteria for Demonstrating Eligibility for the Health-Based Compliance Alternatives Specified for the Large Solid Fuel Subcategory

1. Purpose/Introduction

This appendix provides the methodology and criteria for demonstrating that your affected source is eligible for the compliance alternative for the HCl emission limit and/or the total selected metals (TSM) emission limit. This appendix specifies emissions testing methods that you must use to determine HCl, chlorine, and manganese emissions from the affected units and what parts of the affected source facility must be included in the eligibility demonstration. You must demonstrate that your affected source is eligible for the health-based compliance alternatives using either a look-up table analysis (based on the look-up tables included in this appendix) or a site-specific compliance demonstration performed according to the criteria specified in this appendix. This appendix also specifies how and when you file any eligibility demonstrations for your affected source and how to show that your affected source remains eligible for the health-based compliance alternatives in the future.

2. Who Is Eligible To Demonstrate That They Qualify for the Health-Based Compliance Alternatives?

Each new, reconstructed, or existing affected source may demonstrate that they are eligible for the health-based compliance alternatives. Section 63.7490 of subpart DDDDD defines the affected source and explains which affected sources are new, existing, or reconstructed.

3. What Parts of My Facility Have To Be Included in the Health-Based Eligibility Demonstration?

If you are attempting to determine your eligibility for the compliance alternative for HCl, you must include every emission point subject to subpart DDDDD that emits either HCl or Cl_2 in the eligibility demonstration.

If you are attempting to determine your eligibility for the compliance alternative for TSM, you must include every emission point subject to subpart DDDDD that emits manganese in the eligibility demonstration.

4. How Do I Determine HAP Emissions From My Affected Source?

(a) You must conduct HAP emissions tests or fuel analysis for every emission point covered under subpart DDDDD within the affected source facility according to the requirements in paragraphs (b) through (f) of this section and the methods specified in Table 1 of this appendix.

(1) If you are attempting to determine your eligibility for the compliance alternative for HCl, you must test the subpart DDDDD units at your facility for both HCl and Cl_2. When conducting fuel analysis, you must assume any chlorine detected will be emitted as Cl_2.

(2) If you are attempting to determine your eligibility for the compliance alternative for TSM, you must test the subpart DDDDD units at your facility for manganese.

(b) *Periods when emissions tests must be conducted.*

(1) You must not conduct emissions tests during periods of startup, shutdown, or malfunction, as specified in § 63.7(e)(1).

(2) You must test under worst-case operating conditions as defined in this appendix. You must describe your worst-case operating conditions in your performance test report for the process and control systems (if applicable) and explain why the conditions are worst-case.

(c) *Number of test runs.* You must conduct three separate test runs for each test required in this section, as specified in § 63.7(e)(3). Each test run must last at least 1 hour.

(d) *Sampling locations.* Sampling sites must be located at the outlet of the control device and prior to any releases to the atmosphere.

(e) *Collection of monitoring data for HAP control devices.* During the emissions test, you must collect operating parameter monitoring system data at least every 15 minutes during the entire emissions test and establish the site-specific operating requirements in Tables 3 or 4, as appropriate, of subpart DDDDD using data from the monitoring system and the procedures specified in § 63.7530 of subpart DDDDD.

(f) *Nondetect data.* You may treat emissions of an individual HAP as zero if all of the test runs result in a nondetect measurement and the condition in paragraph (f)(1) of this section is met for the manganese test method. Otherwise, nondetect data for individual HAP must be treated as one-half of the method detection limit.

(1) For manganese measured using Method 29 in appendix A to 40 CFR part 60, you analyze samples using atomic absorption spectroscopy (AAS).

(g) You must determine the maximum hourly emission rate for each appropriate emission point according to Equation 1 of this appendix.

$$\text{Max Hourly Emissions} = \sum_{i=1}^{n} (\text{Er} \times \text{Hm}) \qquad \text{(Eq. 1)}$$

Where:

Max Hourly Emissions = Maximum hourly emissions for hydrogen chloride, chlorine, or manganese, in units of pounds per hour.

Er = Emission rate (the 3-run average as determined according to Table 1 of this appendix or the pollutant concentration in the fuel samples analyzed according to § 63.7521) for hydrogen chloride, chlorine, or manganese, in units of pounds per million Btu of heat input.

Hm = Maximum rated heat input capacity of appropriate emission point, in units of million Btu per hour.

5. What Are the Criteria for Determining If My Facility Is Eligible for the Health-Based Compliance Alternatives?

(a) Determine the HAP emissions from each appropriate emission point within the affected source facility using the procedures specified in section 4 of this appendix.

(b) Demonstrate that your facility is eligible for either of the health-based compliance alternatives using either the methods described in section 6 of this appendix (look-up table analysis) or section 7 of this appendix (site-specific compliance demonstration).

(c) Your facility is eligible for the health-based compliance alternative for HCl if one of the following two statements is true:

(1) The calculated HCl-equivalent emission rate is below the appropriate value in the look-up table;

(2) Your site-specific compliance demonstration indicates that your maximum HI for HCl and $C1_2$ at a location where people live is less than or equal to 1.0;

(d) Your facility is eligible for the health-based compliance alternative for TSM if one of the following two statements is true:

(1) The manganese emission rate for all your subpart DDDDD sources is below the appropriate value in the look-up table;

(2) Your site-specific compliance demonstration indicates that your maximum HQ for manganese at a location where people live is less than or equal to 1.0.

6. How Do I Conduct a Look-Up Table Analysis?

You may use look-up tables to demonstrate that your facility is eligible for either the compliance alternative for the HCl emission limit or the compliance alternative for TSM emission limit.

(a) *HCl health-based compliance alternative.* (1) To calculate the total toxicity-weighted HCl-equivalent emission rate for your facility, first calculate the total affected source emission rate of HCl by summing the maximum hourly HCl emission rates from all your subpart DDDDD sources. Then, similarly, calculate the total affected source emission rate for Cl_2. Finally, calculate the toxicity-weighted emission rate (expressed in HCl equivalents) according to Equation 2 of this appendix.

$$\text{ER}_{tw} = \sum \left(\text{ER}_i \times \left(\text{RfC}_{HCl} / \text{RfC}_i \right) \right) \qquad \text{(Eq. 2)}$$

Where:

ER_{tw} is the HCl-equivalent emission rate, lb/hr.

ER_i is the emission rate of HAP i in lbs/hr

RfC_i is the reference concentration of HAP i

RfC_{HCl} is the reference concentration of HCl (RfCs for HCl and Cl_2 can be found at *http://www.epa.gov/ttn/atw/toxsource/summary.html).*

(2) The calculated HCl-equivalent emission rate will then be compared to the appropriate allowable emission rate in Table 2 of this appendix. To determine the correct value from the table, an average value for the appropriate subpart DDDDD emission points should be used for stack height and the minimum distance between any appropriate subpart DDDDD stack at the facility and the property boundary should be used for property boundary distance. Appropriate emission points and stacks are those that emit HCl and/or Cl_2. If one or both of these values does not match the exact values in the lookup tables, then use the next lowest table value. (**Note:** If your average stack height is less than 5 meters, you must use the 5 meter row.) Your facility is eligible to comply with the health-based alternative HCl emission limit if your toxicity-weighted HCl equivalent emission rate, determined using the methods specified in this appendix, does not exceed the appropriate value in Table 2 of this appendix.

(b) *TSM Compliance Alternative.* To calculate the total manganese emission rate for your affected source, sum the maximum hourly manganese emission rates for all your subpart DDDDD sources. The calculated manganese emission rate will then be compared to the allowable emission rate in the Table 3 of this appendix. To determine the correct value from the table, an average value for the appropriate subpart DDDDD emission points should be used for stack height and the minimum distance between any appropriate subpart DDDDD stack at the facility and the property boundary should be used for property boundary distance. Appropriate emission points and stacks are those that emit manganese. If one or both of these values does not match the exact values in the lookup tables, then use the next lowest table value. (**Note:** If your average stack height is less than 5 meters, you must use the 5 meter row.) Your facility may exclude manganese when demonstrating compliance with the TSM emission limit if your manganese emission rate, determined using the methods specified in this appendix, does not exceed the appropriate value specified in Table 3 of this appendix.

7. How Do I Conduct a Site-Specific Compliance Demonstration?

If you fail to demonstrate that your facility is able to comply with one or both of the alternative health-based emission standards using the look-up table approach, you may choose to perform a site-specific compliance demonstration for your facility. You may use any scientifically-accepted peer-reviewed risk assessment methodology for your site-specific compliance demonstration. An example of one approach for performing a site-specific compliance demonstration for air toxics can be found in the EPA's ''Air Toxics Risk Assessment Reference Library, Volume 2, Site-Specific Risk Assessment Technical Resource Document'', which may be obtained through the EPA's Air Toxics Web site at *http://www.epa.gov/ttn/fera/risk_atoxic.html.*

(a) Your facility is eligible for the HCl alternative compliance option if your site-specific compliance demonstration shows that the maximum HI for HCl and Cl_2 from your subpart DDDDD sources is less than or equal to 1.0.

(b) Your facility is eligible for the TSM alternative compliance option if your site-specific compliance demonstration shows that the maximum HQ for manganese from your subpart DDDDD sources is less than or equal to 1.0.

(c) At a minimum, your site-specific compliance demonstration must:

(1) Estimate long-term inhalation exposures through the estimation of annual

or multi-year average ambient concentrations;

(2) Estimate the inhalation exposure for the individual most exposed to the facility's emissions;

(3) Use site-specific, quality-assured data wherever possible;

(4) Use health-protective default assumptions wherever site-specific data are not available, and;

(5) Contain adequate documentation of the data and methods used for the assessment so that it is transparent and can be reproduced by an experienced risk assessor and emissions measurement expert.

(d) Your site-specific compliance demonstration need not:

(1) Assume any attenuation of exposure concentrations due to the penetration of outdoor pollutants into indoor exposure areas;

(2) Assume any reaction or deposition of the emitted pollutants during transport from the emission point to the point of exposure.

8. What Must My Health-Based Eligibility Demonstration Contain?

(a) Your health-based eligibility demonstration must contain, at a minimum, the information specified in paragraphs (a)(1) through (6) of this section.

(1) Identification of each appropriate emission point at the affected source facility, including the maximum rated capacity of each appropriate emission point.

(2) Stack parameters for each appropriate emission point including, but not limited to, the parameters listed in paragraphs (a)(2)(i) through (iv) below:

(i) Emission release type.

(ii) Stack height, stack area, stack gas temperature, and stack gas exit velocity.

(iii) Plot plan showing all emission points, nearby residences, and fenceline.

(iv) Identification of any control devices used to reduce emissions from each appropriate emission point.

(3) Emission test reports for each pollutant and appropriate emission point which has been tested using the test methods specified in Table 1 of this appendix, including a description of the process parameters identified as being worst case. Fuel analyses for each fuel and emission point which has been conducted including collection and analytical methods used.

(4) Identification of the RfC values used in your look-up table analysis or site-specific compliance demonstration.

(5) Calculations used to determine the HCl-equivalent or manganese emission rates according to sections 6(a) or (b) of this appendix.

(6) Identification of the controlling process factors (including, but not limited to, fuel type, heat input rate, type of control devices, process parameters reflecting the emissions rates used for your eligibility demonstration) that will become Federally enforceable permit conditions used to show that your facility remains eligible for the health-based compliance alternatives.

(b) If you use the look-up table analysis in section 6 of this appendix to demonstrate that your facility is eligible for either health-based compliance alternative, your eligibility demonstration must contain, at a minimum, the information in paragraphs (a) and (b)(1) through (3) of this section.

(1) Calculations used to determine the average stack height of the subpart DDDDD emission points that emit either manganese or HCl and Cl_2.

(2) Identification of the subpart DDDDD emission point, that emits either manganese or HCl and Cl_2, with the minimum distance to the property boundary of the facility.

(3) Comparison of the values in the look-up tables (Tables 2 and 3 of this appendix) to your maximum HCl-equivalent or manganese emission rates.

(c) If you use a site-specific compliance demonstration as described in section 7 of this appendix to demonstrate that your facility is eligible, your eligibility demonstration must contain, at a minimum, the information in paragraphs (a) and (c)(1) through (7) of this section:

(1) Identification of the risk assessment methodology used.

(2) Documentation of the fate and transport model used.

(3) Documentation of the fate and transport model inputs, including the information described in paragraphs (a)(1) through (5) of this section converted to the dimensions required for the model and all of the following that apply: meteorological data; building, land use, and terrain data; receptor locations and population data; and other facility-specific parameters input into the model.

(4) Documentation of the fate and transport model outputs.

(5) Documentation of any exposure assessment and risk characterization calculations.

(6) Comparison of the HQ HI to the limit of 1.0.

9. When Do I Have to Complete and Submit My Health-Based Eligibility Demonstration?

(a) If you have an existing affected source, you must complete and submit your eligibility demonstration to your permitting authority, along with a signed certification that the demonstration is an accurate depiction of your facility, no later than the date one year prior to the compliance date of subpart DDDDD. A separate copy of the eligibility demonstration must be submitted to: U.S. EPA, Risk and Exposure Assessment Group, Emission Standards Division (C404–01), Attn: Group Leader, Research Triangle Park, North Carolina 27711, electronic mail address *REAG@epa.gov*.

(b) If you have a new or reconstructed affected source that starts up before the effective date of subpart DDDDD, or an affected source that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP before the effective date of subpart DDDDD, then you must comply with the requirements of subpart DDDDD until your eligibility demonstration is completed and submitted to your permitting authority.

(c) If you have a new or reconstructed affected source that starts up after the effective date of subpart DDDDD, or an affected source that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP after the effective date for subpart DDDDD, then you must follow the schedule in paragraphs (c)(1) and (2) of this section.

(1) You must complete and submit a preliminary eligibility demonstration based on the information (*e.g.*, equipment types, estimated emission rates, etc.) used to obtain your title V permit. You must base your preliminary eligibility demonstration on the maximum emissions allowed under your title V permit. If the preliminary eligibility demonstration indicates that your affected source facility is eligible for either compliance alternative, then you may start up your new affected source and your new affected source will be considered in compliance with the alternative HCl standard and subject to the compliance requirements in this appendix or, in the case of manganese, your compliance demonstration with the TSM emission limit is based on 7 metals (excluding manganese).

(2) You must conduct the emission tests or fuel analysis specified in section 4 of this appendix upon initial startup and use the results of these emissions tests to complete and submit your eligibility demonstration within 180 days following your initial startup date. To be eligible, you must meet the criteria in section 11 of this appendix within 18 months following initial startup of your affected source.

10. When Do I Become Eligible for the Health-Based Compliance Alternatives?

To be eligible for either health-based compliance alternative, the parameters that defined your affected source as eligible for the health-based compliance alternatives (including, but not limited to, fuel type, fuel mix (annual average), type of control devices, process parameters reflecting the emissions rates used for your eligibility demonstration) must be submitted for incorporation as Federally enforceable limits into your title V permit. If you do not meet these criteria, then your affected source is subject to the applicable emission limits, operating limits, and work practice standards in Subpart DDDDD.

11. How Do I Ensure That My Facility Remains Eligible for the Health-Based Compliance Alternatives?

(a) You must update your eligibility demonstration and resubmit it each time you have a process change, such that any of the parameters that defined your affected source changes in a way that could result in increased HAP emissions (including, but not limited to, fuel type, fuel mix (annual average), change in type of control device, changes in process parameters documented as worst-case conditions during the emissions testing used for your approved eligibility demonstration).

(b) If you are updating your eligibility demonstration to account for an action in paragraph (a) of this section, then you must perform emission testing or fuel analysis according to section 4 of this appendix for the subpart DDDDD emission points that may have increased HAP emissions beyond the levels reflected in your previously approved eligibility demonstration due to the process

change. You must submit your revised eligibility demonstration to the permitting authority prior to revising your permit to incorporate the process change. If your updated eligibility demonstration indicates that your affected source is no longer eligible for the health-based compliance alternatives, then you must comply with the applicable emission limits, operating limits, and compliance requirements in Subpart DDDDD prior to making the process change and revising your permit.

12. What Records Must I Keep?

You must keep records of the information used in developing the eligibility demonstration for your affected source, including all of the information specified in section 8 of this appendix.

13. Definitions

The definitions in § 63.7575 of subpart DDDDD apply to this appendix. Additional definitions applicable for this appendix are as follows:

Hazard Index (HI) means the sum of more than one hazard quotient for multiple substances and/or multiple exposure pathways.

Hazard Quotient (HQ) means the ratio of the predicted media concentration of a pollutant to the media concentration at which no adverse effects are expected. For inhalation exposures, the HQ is calculated as the air concentration divided by the RfC.

Look-up table analysis means a risk screening analysis based on comparing the HAP or HAP-equivalent emission rate from the affected source to the appropriate maximum allowable HAP or HAP-equivalent emission rates specified in Tables 2 and 3 of this appendix.

Reference Concentration (RfC) means an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. It can be derived from various types of human or animal data, with uncertainty factors generally applied to reflect limitations of the data used.

Worst-case operating conditions means operation of an affected unit during emissions testing under the conditions that result in the highest HAP emissions or that result in the emissions stream composition (including HAP and non-HAP) that is most challenging for the control device if a control device is used. For example, worst-case conditions could include operation of an affected unit firing solid fuel likely to produce the most HAP.

TABLE 1 TO APPENDIX B OF SUBPART DDDDD—EMISSION TEST METHODS

For . . .	You must . . .	Using . . .
(1) Each subpart DDDDD emission point for which you choose to use a compliance alternative.	Select sampling ports' location and the number of traverse points.	Method 1 of 40 CFR part 60, appendix A.
(2) Each subpart DDDDD emission point for which you choose to use a compliance alternative.	Determine velocity and volumetric flow rate; ...	Method 2, 2F, or 2G in appendix A to 40 CFR part 60.
(3) Each subpart DDDDD emission point for which you choose to use a compliance alternative.	Conduct gas molecular weight analysis	Method 3A or 3B in appendix A to 40 CFR part 60.
(4) Each subpart DDDDD emission point for which you choose to use a compliance alternative.	Measure moisture content of the stack gas	Method 4 in appendix A to 40 CFR part 60.
(5) Each subpart DDDDD emission point for which you choose to use the HCl compliance alternative.	Measure the hydrogen chloride and chlorine emission concentrations.	Method 26 or 26A in appendix A to 40 CFR part 60.
(6) Each subpart DDDDD emission point for which you choose to use the TSM compliance alternative.	Measure the manganese emission concentration.	Method 29 in appendix A to 40 CFR part 60.
(7) Each subpart DDDDD emission point for which you choose to use a compliance alternative.	Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of this chapter.

TABLE 2 TO APPENDIX A OF SUBPART DDDDD—ALLOWABLE TOXICITY-WEIGHTED EMISSION RATE EXPRESSED IN HCl EQUIVALENTS (lbs/hr)

Stack ht. (m)	Distance to property boundary (m)											
	0	50	100	150	200	250	500	1000	1500	2000	3000	5000
5	114.9	114.9	114.9	114.9	114.9	114.9	144.3	287.3	373.0	373.0	373.0	373.0
10	188.5	188.5	188.5	188.5	188.5	188.5	195.3	328.0	432.5	432.5	432.5	432.5
20	386.1	386.1	386.1	386.1	386.1	386.1	386.1	425.4	580.0	602.7	602.7	602.7
30	396.1	396.1	396.1	396.1	396.1	396.1	396.1	436.3	596.2	690.6	807.8	816.5
40	408.1	408.1	408.1	408.1	408.1	408.1	408.1	448.2	613.3	715.5	832.2	966.0
50	421.4	421.4	421.4	421.4	421.4	421.4	421.4	460.6	631.0	746.3	858.2	1002.8
60	435.5	435.5	435.5	435.5	435.5	435.5	435.5	473.4	649.0	778.6	885.0	1043.4
70	450.2	450.2	450.2	450.2	450.2	450.2	450.2	486.6	667.4	813.8	912.4	1087.4
80	465.5	465.5	465.5	465.5	465.5	465.5	465.5	500.0	685.9	849.8	940.9	1134.8
100	497.5	497.5	497.5	497.5	497.5	497.5	497.5	527.4	723.6	917.1	1001.2	1241.3
200	677.3	677.3	677.3	677.3	677.3	677.3	677.3	682.3	919.8	1167.1	1390.4	1924.6

TABLE 3 TO APPENDIX A OF SUBPART DDDDD—ALLOWABLE MANGANESE EMISSION RATE (lbs/hr)

Stack ht. (m)	Distance to property boundary (m)											
	0	50	100	150	200	250	500	1000	1500	2000	3000	5000
5	0.29	0.29	0.29	0.29	0.29	0.29	0.36	0.72	0.93	0.93	0.93	0.94
10	0.47	0.47	0.47	0.47	0.47	0.47	0.49	0.82	1.08	1.08	1.08	1.08
20	0.97	0.97	0.97	0.97	0.97	0.97	0.97	1.06	1.45	1.51	1.51	1.51
30	0.99	0.99	0.99	0.99	0.99	0.99	0.99	1.09	1.49	1.72	2.02	2.04
40	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.12	1.53	1.79	2.08	2.42
50	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.15	1.58	1.87	2.15	2.51
60	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.18	1.62	1.95	2.21	2.61
70	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.22	1.67	2.03	2.28	2.72
80	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.25	1.71	2.12	2.35	2.84
100	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.32	1.81	2.29	2.50	3.10
200	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.71	2.30	2.92	3.48	4.81

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Walter L. Tweedy,

Acting Manager, System Support Group, ATO Central Service Area.

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[EPA–HQ–OAR–2002–0058; FRL–8252–2]

RIN 2060–AN32

National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters: Reconsideration of Emissions Averaging Provision and Technical Corrections

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule; notice of final action on reconsideration.

SUMMARY: EPA is promulgating amendments to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters. After promulgation of this final rule, the Administrator received petitions for reconsideration of certain provisions in the final rule. Subsequently, EPA published a notice of the reconsideration and requested public comment on proposed amendments to the NESHAP. After evaluating public comments, we are adopting each of the amendments that we proposed.

DATES: This final rule is effective on February 5, 2007. The incorporation by reference of certain publications listed in this final rule is approved by the Director of the Office of **Federal Register** as of February 5, 2007.

ADDRESSES: EPA has established a docket for this action under docket ID No. EPA–HQ–OAR–2002–0058. 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 through *http://www.regulations.gov* or in hard copy at the Air and Radiation Docket and Information Center, EPA/DC, EPA West Building, Room B102, 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 Air Docket is (202) 566–1742.

FOR FURTHER INFORMATION CONTACT: Mr. James Eddinger, Energy Strategies Group, Sector Policies and Programs Division (D243–01), Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541–5426, fax number: (919) 541–5450, e-mail address: *eddinger.jim@epamail.epa.gov.*

SUPPLEMENTARY INFORMATION:

Regulated Entities. Categories and entities potentially regulated by the final rule:

Category	NAICS code	Examples of potentially regulated entities
Any industry using a boiler or process heater in the final rule ...	321	Manufacturers of lumber and wood products.
	322	Pulp and paper mills.
	325	Chemical manufacturers.
	324	Petroleum refiners and manufacturers of coal products.
	316, 326, 339	Manufacturers of rubber and miscellaneous plastic products.
	331	Steel works.
	332	Electroplating, plating, polishing, anodizing, and coloring.
	336	Manufacturers of motor vehicle parts and accessories.
	221	Electric, gas, and sanitary services.
	622	Health services.
	611	Educational Services.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this final rule. To determine whether your facility would be regulated by this final rule, you should carefully examine the applicability criteria in 40 CFR 63.7485 of this final rule. If you have any questions regarding the applicability of this final rule to a particular entity, contact the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

WorldWide Web (WWW). In addition to being available in the docket, an electronic copy of this final rule will be available on the WWW through the Technology Transfer Network Web site (TTN). EPA has posted a copy of the final rule on the TTN's policy and guidance page for newly proposed or promulgated rules at *http://www.epa.gov/ttn/oarpg.* The TTN provides information and technology exchange in various areas of air pollution control.

Judicial Review. Under section 307(b)(1) of the Clean Air Act (CAA), judicial review of the final rule is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by February 5, 2007. Under CAA section 307(d)(7)(B), only an objection to the final rule that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under CAA section 307(b)(2), the requirements established by today's final action may not be challenged separately in any civil or criminal proceedings brought by EPA to enforce these requirements.

Background Information Document. EPA proposed and provided notice of the reconsideration of the NESHAP for industrial, commercial, and institutional boilers and process heaters on October 31, 2005 (70 FR 62264) and received 17 comment letters on the proposal. A memorandum ''National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, Summary of Public Comments and Responses to GE Petition and Reconsideration of the Final Rule,'' containing EPA's responses to each public comment is available in Docket No. EPA–HQ–OAR–2002–0058.

Organization of this document: The information presented in this preamble is organized as follows:

I. Statutory Authority for the Final Rule
II. Background
III. What changes are included in this final rule?
A. American Society for Testing and Materials (ASTM) Test Methods
B. Utility Steam Generating Units
C. Fuel Analysis Requirement
D. Consolidated Testing
1. Compliance With Consolidated Testing
2. Monitoring of Common Stack
3. Emissions Averaging when Units in Different Subcategories are Ducted to Common Stack
4. Continuous Compliance With the Emissions Averaging Provision
5. Monthly Compliance Demonstrations and Calculations
E. Definitions
IV. Responses to Significant Comments
A. Scope of Emissions Averaging Provision
B. Compliance Testing and Monitoring
C. Definitions
D. Testing Methods
V. Statutory and Executive Order Reviews
A. Executive Order 12866: Regulatory Planning and Review
B. Paperwork Reduction Act
C. Regulatory Flexibility Act
D. Unfunded Mandates Reform Act
E. Executive Order 13132: Federalism
F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments
G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks
H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use
I. National Technology Transfer and Advancement Act
J. Congressional Review Act

I. Statutory Authority for the Final Rule

Section 112 of the Clean Air Act (CAA) requires us to list categories and subcategories of major sources and area sources of hazardous air pollutant (HAP) and to establish NESHAP for the listed source categories and subcategories. Industrial boilers, commercial and institutional boilers, and process heaters were listed on July 16, 1992 (57 FR 31576). Major sources of HAP are those that have the potential to emit greater than 10 tons per year (tpy) of any one HAP or 25 tpy of any combination of HAP.

II. Background

On September 13, 2004 (69 FR 55218), we promulgated the NESHAP for industrial, commercial, and institutional (ICI) boilers and process heaters (Boilers NESHAP) as subpart DDDDD of 40 CFR part 63 under section 112(d) of the CAA. The NESHAP contain technology-based emissions standards reflecting the maximum achievable control technology and a health-based compliance alternative for certain threshold pollutants. We proposed these standards for ICI boilers and process heaters on January 13, 2003 (68 FR 1660).

In the preamble for the January 2003 proposed rule, we discussed our consideration of a bubbling compliance alternative and requested comment on incorporating a bubbling compliance alternative (*i.e.*, emission averaging) into this final rule as part of EPA's general policy of encouraging the use of flexible compliance approaches where they can be properly monitored and enforced. (See 68 FR 1686.) Industry trade associations, owners/operators of boilers and process heaters, State regulatory agencies, local government agencies, and environmental groups submitted comments on the emissions averaging approach. We received a total of 40 public comment letters regarding the emissions averaging approach in the proposed rule during the comment period. We summarized major public comments on the proposed emissions averaging approach, along with our responses to those comments, in the preamble to the final rule (69 FR 55238) and in the memorandum ''Response to Public Comments on Proposed Industrial, Commercial, and Institutional Boilers and Process Heaters NESHAP (Revised)'' (RTC Memorandum) which was placed in the docket for the final rule.

In the September 2004 final rule, we adopted an emissions averaging provision for existing large solid fuel boilers. The procedures that affected sources must use to demonstrate compliance through emissions averaging were promulgated at 40 CFR 63.7522. (See 69 FR 55257.) For each existing large solid fuel boiler in the averaging group, the emissions are capped at the emission level being achieved on the effective date of the final rule (November 12, 2004). Under emissions averaging provision in the 2004 final rule, compliance must be demonstrated on a 12-month rolling average basis, determined at the end of every calendar month. If a facility uses this option, it must also develop and submit an implementation plan to the applicable regulatory authority for review and approval no later than 180 days before the date that the facility intends to demonstrate compliance.

Following promulgation of the emissions averaging provision in the final rule, the Administrator received a petition for reconsideration pursuant to section 307(d)(7)(B) of the CAA from General Electric (GE). Under this section, the Administrator is to initiate reconsideration proceedings if the petitioner can show that it was impracticable to raise an objection to a rule within the public comment period or that the grounds for the objection arose after the public comment period.

GE requested that EPA reconsider portions of the emissions averaging provision that it believes could not have been practicably addressed during the public comment period. In the alternative, GE requested clarification that the final rule already allows for consolidated testing of commonly vented boilers. By a letter dated April 27, 2005, we informed GE that we intended to grant their petition for reconsideration. On October 31, 2005, we published a notice of reconsideration and proposed amendments to the final rule (70 FR 62264).

In the notice of reconsideration of the emissions averaging provision, we proposed amendments to 40 CFR 63.7522 and solicited comment in the following areas: (1) Allowing testing of a common stack in situations where each of the units vented to the common stack are in the existing solid fuel subcategory; (2) treating a group of boilers that vent through a common emissions control system to a common stack as a single existing solid fuel boiler for the purpose of subpart DDDDD of 40 CFR part 63; (3) treating a group of boilers that vent through more than one common emissions control system as distinct units and requiring individual compliance testing according to the methods specified in Table 8 to subpart DDDDD; (4) demonstrating compliance with opacity limits using a single continuous opacity monitoring system (COMS) located in the common stack if each of the boilers venting to the common stack has an applicable opacity limit; (5) treating certain common stack situations as a single emission point for purposes of averaging emissions with other existing large solid fuel boilers located at the facility.

In addition, our October 31, 2005 notice of proposed rulemaking included several corrections to subpart DDDDD of 40 CFR part 63 that were not related to emissions averaging. Several clarifying amendments addressed: (1) The applicability of firetube boilers in the small unit subcategories and limited use subcategories; (2) the definitions of firetube and watertube boilers with respect to ''hybrid boilers''; and (3) the equivalent methods allowed in Table 6 to subpart DDDDD. The proposed corrections include language that: (1) Excludes electric utility steam

generating units that are covered by 40 CFR part 60, subpart Da or 40 CFR part 60, subpart HHHH; (2) adds Equation 4A to subpart DDDDD for calculating a 12-month rolling average emission rate when using the emissions averaging option; (3) requires an oxygen monitor to be installed when a carbon monoxide monitor is required by the rule; and (4) updates American Society of Testing and Materials (ASTM) test methods in Table 6 to subpart DDDDD.

A comprehensive response to public comments is available in a document entitled ''National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, Summary of Public Comments and Responses to GE Petition and Reconsideration of the Final Rule,'' which can be found in the docket (Docket No. EPA–HQ–OAR–2002–0058).

III. What Changes Are Included in This Final Rule?

In this final action, we are making a limited number of corrections and amendments to 40 CFR 63.14 and sections 63.7491, 63.7510, 63.7522, 63.7525, 63.7540, 63.7541, 63.7575, and Table 6 of subpart DDDDD consistent with our October 2005 proposal. These changes improve and clarify the procedures for implementing the emissions averaging provision and for conducting compliance testing when boilers are vented to a common stack. Among other technical corrections, we also are clarifying several definitions to help affected sources classify ''limited use'' and ''hybrid'' boilers. We have modified some of regulatory language that we proposed based on public comments, but overall, we are adopting amendments to the emission averaging provision and other provision in subpart DDDDD that are in substantially the same form as what we proposed in October 2005.

A. American Society for Testing and Materials (ASTM) Test Methods

We are adopting the proposed revisions relating to ASTM test methods without change. As suggested by the ASTM, we are amending Table 6 to subpart DDDDD to reflect updated ASTM test methods. Similar changes are also being made to 40 CFR 60.14 (Incorporation by Reference) of the General Provisions. Additionally, we are publishing in Table 1 of this preamble a list of testing methods that EPA previously reviewed and approved for use as ''alternative'' methods that are considered ''equivalent'' for the purpose of Table 6 to subpart DDDDD.

TABLE 1.—LIST OF EQUIVALENT METHODS APPROVED AS OF FEBRUARY 15, 2005

Pollutant or Analyte	EPA-approved equivalent method
Arsenic	SW–846–7060.[a]
	SW–846–7060A.
Chlorine	ASTM D2361.
Hydrogen Chloride	SW–846–5050.
	SW–846–9056.
	SW–846–9076.
	SW–846–9250.
	ASTM E776–87.
Mercury	EPA Method 1631E.
	SW–846–1631.
	ASTM D6722–01.
	EPA 821–R–01–013.
Higher Heating Value	ASTM E711–87 (1996).
	ASTM D240.
Moisture content of Coal Fuel.	ASTM D2691–95.
Moisture Analysis	EPA 160.3 Mod.
Digestion Procedure	EPA–821–R–01–03.
	ASTM D586 (Dry Ash method).
Sample Preparation for TSM.	SW–846–3050B.
Sample Preparation and Digestion for TSM.	SW–846–3050.
	TAPPI T266.
Sample Preparation and Grinding.	ASTM E829–94.
Selenium	SW–846–7740.
Total Selected Metals	EPA 200.8.
	ASTM D6357–04.
	ASTM D4606–03.
	EPA 7060A.
	SW–846–6020A.
	SW–846–6020.

[a] *http://www.epa.gov/epaoswer/hazwaste/test/sw846.htm.*

This table is not meant to be exhaustive, because the list of equivalent methods is dynamic. This table is meant to serve as guidance for the methods that have been approved to date. We emphasize that equivalent methods may be used in lieu of the prescribed methods in Table 6 to subpart DDDDD at the discretion of the source owner or operator. Therefore, maintaining a list of ''approved methods'' in the final rule is not necessary. Similarly, approval of equivalent methods by EPA or the delegated implementation authority is not necessary.

B. Utility Steam Generating Units

We are adopting the regulatory language that we proposed to avoid overlapping coverage between subpart DDDDD of 40 CFR part 63 and other rules that apply to certain types of electric utility steam generating units. The types of boilers and process heaters that are not subject to subpart DDDDD are listed in 40 CFR 63.7491. Our intention was to exempt from subpart DDDDD any units that are already or will be subject to regulation for HAP under another standard. (See 69 FR 1663.) Because regulations relating to electric utility steam generating units were under development at the time of promulgation of subpart DDDDD, we were unable to reference a specific rule citation that applied to electric utility steam generating units. Instead, subpart DDDDD excluded electric utility steam generating units by using only the definition of electric utility steam generating units contained in section 112(a)(8) of the CAA.

On May 18, 2005, EPA promulgated the Clean Air Mercury Rule (70 FR 28606). In that rule, EPA established standards of performance for mercury (40 CFR part 60, subpart Da) from new electric utility steam generating units, as well as mercury emission guidelines for existing electric utility steam generating units (40 CFR part 60, subpart HHHH). After that rule was promulgated, it was brought to our attention that the scope of the exclusion in subpart DDDDD of 40 CFR part 63 for electric utility steam generating units was unclear. Confusion resulted because 40 CFR part 60, subparts Da and HHHH, employ different definitions to determine applicability. (See 70 FR at 28609.) Thus, to clarify applicability of subpart DDDDD, we are amending 40 CFR 63.7491(c) to exclude ''an electric utility steam generating unit (including a unit covered by 40 CFR part 60, subpart Da) or a Mercury Budget unit covered by 40 CFR part 60, subpart HHHH.''

C. Fuel Analysis Requirement

We received a comment raising the question of whether we intended for units which combust only a single fuel type to be required to conduct fuel analysis when demonstrating compliance through performance (stack) testing, as required by 40 CFR 63.7510(a). Our intent, as stated in the September 2004 preamble to the final rule (69 FR 55225), was that ''Units burning only a single fuel type (not including startup fuels) do not need to determine, by fuel analysis, the fuel inlet operating limit when conducting performance tests.'' In this final action, we are adding similar language to 40 CFR 63.7510(a) to make this understanding explicit in the text of our regulations. This change was not included among the corrections we proposed in October 2005. However, since this revision is based on language in the September 2004 preamble that has not given rise to any objection, we are adopting this correction as part of this final rule.

D. Consolidated Testing and Emissions Averaging

The current language for the emissions averaging option in 40 CFR 63.7522 requires testing of each individual boiler in the averaging group. Our intent with regard to the emissions averaging option in the final rule was to provide an equivalent, more flexible, and less costly compliance alternative. Since testing emissions from a common stack for a group of boilers would be equivalent to the average emissions calculated from emissions tests on each individual boiler, we are amending subpart DDDDD of 40 CFR part 63 to allow testing of emissions at the common stack under specified situations described below.

Consolidated testing of the common stack must be conducted when each boiler is operated under representative testing conditions as specified in the National Stack Testing Guidance issued by EPA on September 30, 2005.

The amendments to 40 CFR 63.7522 adopted in this action are substantially the same as what we proposed in October 2005. However, based on public comments, we have modified some of the proposed language and added some conforming amendments to other provisions of subpart DDDDD of 40 CFR part 63 that relate to emissions averaging.

1. Compliance With Consolidating Testing

GE sought clarification on the consolidated testing procedures necessary to demonstrate compliance in two different common stack situations. In one situation, the exhaust from three existing large solid fuel boilers are combined and vented through a common emissions control system to a common stack. In the other situation, the exhaust from two existing large solid fuel boilers are each individually controlled prior to being vented to a common stack. In the revised regulatory provisions set forth below, we are amending this final rule to clarify how to demonstrate compliance under these two circumstances. The final amendments address these two circumstances in the same way that we proposed in October 2005.

In the first situation, a group of units that share a common control device before venting to a common stack is treated as a single source. In such situations, an operator can demonstrate compliance by testing at the common stack without using the emissions averaging equations in 40 CFR 63.7522 for each unit or submitting an implementation plan. We are also adding language in section 63.7522(k) of subpart DDDDD to clarify that the common stack situations described above may be treated as a separate single emission point for purpose of including these units in an emissions averaging group with other existing large solid fuel boilers located at the facility.

We are adopting a slightly different approach for averaging emissions from groups of affected units that vent to a common stack through more than one emissions control system. These distinct approaches are necessary to ensure that a source with more than one emissions control system demonstrates continuous compliance at each emissions control system. Where a group of boilers vents to a common stack through more than one emission control system, continuous compliance will be demonstrated according to the methods specified in Table 8 to subpart DDDDD.

2. Monitoring of Common Stack

In this final action, we are adding an amendment to section 63.7541 of subpart DDDDD to address the COMS requirements for facilities participating in the emissions averaging option. If each of the boilers venting to a common stack has an applicable opacity operating limit, a dry control system, and no units from other subcategories or nonaffected units vent to the common stack, then a single COMS may be located in the common stack instead of each duct to the common stack. Alternately, if any of the boilers venting to the common stack does not have an applicable opacity operating limit, but each of the existing solid fuel units is equipped with a dry control system and no nonaffected units vent to the common stack, a COMS monitor may be located at the common stack instead of each duct to the common stack. We amended 40 CFR 63.7541 to allow for a COMS monitor at the common stack in this situation.

We discussed this approach in the October 2005 proposal (70 FR at 62268), but did not include any regulatory language in that action. Commenters requested that we make explicit in our regulations that this practice is permissible when sources elect to demonstrate compliance using emissions averaging.

3. Emissions Averaging When Units in Different Subcategories Are Ducted to Common Stack

In response to the GE petition for reconsideration, we proposed amendments that would limit the emissions averaging provision to common stack scenarios that contained solely units in the existing large solid fuel subcategory. In this final action, we have decided to expand the emissions averaging provision to allow units in the existing large solid fuel subcategory to conduct performance tests at the end of a common stack configuration with affected units from other subcategories and nonaffected units under specific circumstances.

As a result of public comments submitted, we now recognize that affected units from several subcategories (*e.g.*, both gas and solid fuel fired units) and nonaffected units are sometimes ducted to a common stack. To address these situations, we are adopting a revised amendment to the emissions averaging provision in 40 CFR 63.7522 that allows consolidated testing of units in the existing large solid fuel subcategory as long as the commonly vented units from other subcategories and nonaffected units follow specific procedures during the consolidated compliance test.

The emissions averaging provision is only applicable to units in the existing large solid fuel subcategory. EPA did not find cause to promulgate emissions limitations for many of the subcategories of existing units. However, new units are subject to different emissions limitations than existing units. These differing emissions limitations make it difficult to allow consolidated testing of emissions from sources in different subcategories under an emissions averaging approach.

However, to eliminate this obstacle to consolidated testing when existing large solid fuel units may share a duct or stack with units in other subcategories or nonaffected units covered by another NESHAP category, we are requiring facilities to shut down, or vent to a different stack, affected boilers or process heaters in other subcategories or nonaffected units in other categories prior to performing a consolidated compliance test for the units in the large solid fuel subcategory. Testing of a common stack in these situations will measure the average emissions from the averaging group of existing large solid fuel units, just as if each boiler in the large solid fuel subcategory was tested individually and their emissions averaged. By requiring the affected units from other subcategories or nonaffected units to be shut off, or vented to a different stack, during testing, the consolidated testing for certain stack configurations allows the group of existing large solid fuel boilers to demonstrate initial compliance at a lower cost.

Allowing the testing of a common stack under these conditions also

satisfies the criteria discussed in the September 2004 preamble to the final rule (69 FR 55239) that EPA has generally imposed on the scope and nature of emissions averaging programs. These criteria include: (1) No averaging between different types of pollutants, (2) no averaging between sources that are not part of the same major source, (3) no averaging between sources within the same major source that are not subject to the same NESHAP, and (4) no averaging between existing sources and new sources. This final rule fully satisfies each of these criteria.

The provision promulgated in this action only allows averaging of emissions from existing units in the large solid fuel subcategory. Emissions from units that are shut down or vented elsewhere during compliance testing are not included in the average or co-mingled with the emissions that are the focus of the test.

4. Continuous Compliance With the Emissions Averaging Provision

As a result of this expansion to the emissions averaging provision, we had to establish continuous compliance procedures with this provision to address common stack scenarios with units from multiple subcategories or nonaffected units. In this final rule, we are also amending 40 CFR 63.7541 to establish continuous compliance procedures under the emissions averaging provision for common stack configurations with different subcategories or nonaffected units. These amendments require affected units to maintain 3-hour average parametric limits on all the control devices for existing large solid fuel boilers venting to a common stack. The parametric limits will ensure that the control devices continue to operate under the conditions established during the initial compliance test. These amendments establish continuous compliance requirements for common stack configurations that were not previously eligible to comply with the emissions averaging provision.

5. Monthly Compliance Demonstrations and Calculations

This final rule includes several additional amendments to subsections (d), (e), and (f) of section 63.7522 that were recommended in public comments. These amendments clarify that, under the emissions averaging provision, continuous compliance must be demonstrated at the end of every month (12 times per year). In addition, we have made several corrections to the formulas used in emissions averaging calculations. Additional details on these amendments are reflected in the Response-to-Comments document that is available in Docket No. EPA-HQ-OAR–2002–0058.

E. Definitions

In the October 2005 notice, we proposed to add or amend several definitions in subpart DDDDD of 40 CFR part 63 to clarify our intent and correct inadvertent omissions. In this final action, we are adopting modified versions of several definitions based on public comments. In addition, we are promulgating three additional definitions to provide additional clarity requested by commenters.

We have added a definition for ''common stack'' similar to the definition provided in 40 CFR part 72 at the request of some of the commenters.

We have also added a definition for ''voluntary consensus standards'' since this term is used to define ''equivalent'' as this term is used in Table 6 of subpart DDDDD. We are adopting the same definition of ''equivalent'' that we proposed, but we have added language to Table 6 of subpart DDDDD to clarify that equivalent methods may be used in lieu of the prescribed methods in Table 6 at the discretion of the source owner or operator.

The definitions for both ''firetube boiler'' and ''watertube boiler'' are amended to include criteria for classifying boilers designed with both firetubes and watertubes, commonly referred to as ''hybrid boilers.'' Based on comments, we are adopting a modified definition of firetube boiler to include boilers that utilize a containment shell that encloses firetubes and allows the water to vaporize and steam to separate. We have also modified the definition of watertube boilers that we proposed to include boilers that incorporate a steam drum with tubes connected to the drum to separate steam from water.

We have amended the proposed definitions for both small gaseous and small liquid fuel subcategories to clarify that these subcategories include all firetube boilers, regardless of size, as well as other types of boilers with a rated capacity of 10 million MMBtu per hour heat input or less. We have amended the definitions to clarify our intent that firetube boilers greater than 10 MMBtu per hour heat input are still part of the small subcategory.

We have also added an amendment to the definitions for both the small and large gaseous fuel subcategories to allow for units in these two categories to periodically test using liquid fuel as long as the tests do not exceed a combined total of 48 hours during any calendar year. This allowance was adopted because of the need to test an emergency fuel in order to ensure that the unit could effectively operate using the emergency fuel during a period of gas curtailment. California regulations stipulate a 48-hour limit on this periodic testing on emergency fuels, and we have adopted their precedent.

We are also amending the definition of ''fuel type'' in response to a comment we received. Questions have been raised on whether we intended for units that may burn evidence seized in drug raids as a public service for a variety of enforcement agencies to test these materials as part of the compliance testing requirements. It is reportedly exceedingly difficult to arrange for a test of these materials given the security that surrounds them. Also, facilities have been approached about burning retired U.S. flags. Burning is the preferred mode of disposal of retired U.S. flags. Since we did not intend to include contraband materials, or U.S. flags, as a fuel when a facility is conducting performance tests or fuel analyses to demonstrate compliance, we are amending the definition of ''fuel type'' to include the statement ''Contraband, prohibited goods, or retired U.S. flags, burned at the request of a government agency, are not considered a fuel type for the purpose of this subpart.'' We do not classify facilities designed and operated for energy recovery as commercial and industrial solid waste incinerators if they combust small amounts of others materials. (See 70 FR 55568, 55575; September 22, 2005.)

A revision to the definition of ''fuel type'' was not included among the corrections that we proposed. However, since this amendment addresses a *de minimis* situation that supports law enforcement efforts and respect for a national symbol, we are adopting this correction in this final action.

IV. Responses to Significant Comments

We received 17 public comment letters on the proposed rule and notice of reconsideration. Complete summaries of all the comments and EPA responses are found in the Response-to-Comments document (see **SUPPLEMENTARY INFORMATION** section). The most significant comments are summarized below.

A. Scope of Emissions Averaging Provision

Comment: Several commenters requested that EPA expand the common stack testing option to include common stack configurations with groups of boilers from different subcategories or units not subject to the boiler NESHAP. Two of these commenters added that in

many situations the layout of boilers and ductwork to common stacks make it impractical to perform emissions testing on each individual boiler venting to the common stack due to a lack of appropriate sampling location and duct configurations. One commenter (OAR–2002–0058–0722) added that in order to test each individual unit a source would have to build a temporary testing system of stacks and ductwork to demonstrate initial compliance, and this temporary system would still not be suitable for demonstrating continuous compliance. The commenter contended that without expanding the testing to groups of boilers from different source categories venting to a common stack, the NESHAP would require a source to reconfigure its ductwork and build new stacks.

One commenter approved of EPA's amendments to allow common stack performance testing under the circumstances provided in the proposed amendments.

Response: We agree in part with the commenters' recommendation and have modified the rule to allow performance testing to be conducted at the end of stacks that receive emissions from boilers from different subcategories and nonaffected units in other NESHAP categories, as long as the emissions from these other units are stopped or redirected as described further below. However, we do not consider it appropriate to allow averaging of emissions from units in other subcategories or nonaffected units or consolidated testing of co-mingled emissions from units in other subcategories or nonaffected units. EPA has generally imposed limits on emissions averaging programs, which includes no averaging between emission units that are not part of the same source category. Since these units are generally subject to different emissions limitations, averaging or co-mingling of emissions would not provide a reliable demonstration of compliance with the applicable emissions limitation for those sources in a particular category or subcategory.

Nevertheless, we do consider it appropriate under specified conditions described further below to allow testing at the end of the common stack for existing large solid fuel units at facilities with stack configurations that contain units from other subcategories (*e.g.*, gas-fired units) and nonaffected units. EPA has established a clear and enforceable method for demonstrating initial, annual, and continuous compliance when units of different subcategories and nonaffected units vent to a common stack. Further, extending the common stack testing option to these stack configurations will not cause adverse effects to human health or the environment. The total emissions out of the stack will not increase as a result of this extension and compliance with the emission limits of each unit feeding the common stack will be determined by parametric limits on the control device through which the units vent to the common stack.

Facilities that have common stack configurations consisting of units subject to the boiler NESHAP and units from other source categories also have the prerogative to petition for alternate testing and compliance plans on a site-specific basis.

B. Compliance Testing and Monitoring

Comment: Several commenters suggested an alternative methodology to meet the requirements of initial and annual compliance tests for units opting to use the emissions averaging provision. These commenters suggested that during the initial and subsequent annual compliance tests, all boilers venting to the common stack that are not subject to emission limits be turned off (*i.e.* gas-fired units or nonaffected units). These commenters suggested that shutting down units of different subcategories or nonaffected units would satisfy the requirements of the boiler NESHAP. One commenter added that these methods will still provide reliable test data to the regulatory authorities to demonstrate compliance. One commenter added that since many large solid fuel units share a stack with gas-fired units, the NESHAP, as proposed in the notice of reconsideration, would require individual performance testing on each large solid fuel boiler, which would greatly increase the costs of testing compliance and increase system downtime.

Response: We agree that turning off units from other subcategories (*e.g.*, gas-fired units) and nonaffected units during the testing period, satisfies the requirements of the boiler NESHAP emissions averaging provision. Allowing the testing of a common stack, when units from other subcategories and nonaffected units are turned off satisfies the criteria that EPA has generally imposed on the scope and nature of emissions averaging programs. These criteria include: (1) No averaging between different types of pollutants, (2) no averaging between sources that are not part of the same major source, (3) no averaging between sources within the same major source that are not subject to the same NESHAP, and (4) no averaging between existing sources and new sources. The provision promulgated in this action only allows averaging of emissions from existing units in the large solid fuel subcategory. Emissions from units that are shut down or vented elsewhere during compliance testing are not included in the average or co-mingled with the emissions that are the focus of the test.

Facilities that have common stack configurations, with units subject to the boiler NESHAP and nonaffected units, have the prerogative to petition for alternate testing and compliance plans on a site-specific basis. The type of testing discussed here is one example of an alternate testing and compliance plan that a facility would petition for on a site-specific basis. We have adjusted the rule language in 40 CFR 63.7522(h) to allow for shutting down units from other subcategories and nonaffected units to demonstrate compliance with the emissions averaging provision when units belonging to different subcategories of the boiler NESHAP and nonaffected units vent to the same stack as large solid fuel boilers.

Comment: Two commenters suggested that parametric limits be set on all control devices used on solid fuel fired units and that these parametric limits be used to demonstrate continuous compliance with the emissions averaging provision of the boiler NESHAP. These commenters added that parametric limits on the control devices for existing large solid-fuel boilers would ensure that these control devices operated under the conditions established during the initial compliance test and provide a defensible way to demonstrate continuous compliance with the emissions averaging provision of the boiler NESHAP. One commenter suggested that parametric compliance limits be set on any control device in the group of units sharing a common stack, regardless of whether the conditions are wet or dry in the stack.

Response: We agree that setting parametric limits on all control devices for existing large solid-fuel boilers venting to a common stack is an acceptable method for demonstrating continuous compliance with the emissions averaging provision of the boiler NESHAP. These parametric limits are a clear and enforceable method of demonstrating compliance. We have adjusted the rule language in 40 CFR 63.7541 to allow for a facility to demonstrate continuous compliance under the emissions averaging provision by using parametric limits on the control devices of existing large solid fuel units venting to a common stack.

Comment: One commenter requested that EPA allow for a COMS at a common stack even when a source does not make use of the emissions averaging provision and opts to do performance testing on individual boilers. The commenter added that this regulatory flexibility will reduce compliance costs and maintain adequate levels of emissions monitoring.

Two commenters requested that EPA clarify 40 CFR 63.7525(b) to allow a COMS to be located at the common stack, regardless of whether the group of boilers sharing a common stack consists of boilers of different subcategories. One commenter suggested that it did not believe EPA intended to require a COMS on individual units sharing a common stack. The commenter added that it is impractical, due to a lack of space or adequate location, to install individual COMS monitors in the duct work for groups of boilers that share a common stack. The commenter cites 40 CFR part 60, appendix B, Performance Specification (PS)–1, to reference that in many cases this requirement has been satisfied by placing a COMS on the common stack.

One commenter suggested that language be added to 40 CFR 63.7522(j)(3) to indicate that a COMS monitor is required at a common stack, even when each individual boiler unit has a separate opacity operating limit. The commenter is concerned that without additional language, 40 CFR 63.7522(j)(3) could be misinterpreted to require a COMS in each duct leading to the common stack. The commenter noted that although there is discussion of this intent in the preamble (70 FR 62268), the commenter suggested that there be language added to this effect in the actual rule text. The commenter also suggested that language be added to 40 CFR 63.7541(a)(2) to clarify that a single COMS monitor for a group of units that each vents through a unique control system and then to a common stack. The commenter suggested this language is necessary so that this group of units is treated similarly to a group of units venting through a common control device to a common stack with respect to the requirements of a COMS.

Response: We agree with these suggestions as long as all units feeding the common stack are in the existing large solid fuel subcategory. The emissions averaging provision was intended to be an option for affected facilities to allow for increased regulatory flexibility. We reiterate here that if a source chooses to do performance testing for HAP emissions at each individual unit, the source is still eligible to locate a COMS monitor on the common stack as long as all the units feeding the common stack are in the existing large solid fuel subcategory.

We disagree with the commenter's suggestion to allow for a COMS monitor to be located at the common stack when groups of boilers from different affected subcategories or nonaffected units are feeding the stack. We also disagree with allowing a single COMS unit to be placed on the common stack if the units feeding the common stack belong to other source categories.

C. Definitions

Comment: Several commenters requested that EPA modify the definitions of firetube and watertube boilers to account for hybrid boilers. The commenters suggested that EPA make the distinction between the two units based on the location of the containment or steam separation system in the unit in order to clarify the basic difference between fire tube and water tube units. Three commenters added that water tube units incorporate a steam drum, which provides for steam separation from water, whereas a fire tube unit uses a containment shell, inside which the water vaporizes and steam separates. One commenter suggested that a water tube boiler be defined as a boiler that has a water tube type of steam drum, with no additional heat exchange surface in the form of fire tubes running through the drum. The commenter suggested that a fire tube boiler be defined as any hybrid type of boiler where steam separation takes place in a vessel that also contains fire tubes that provide the major heat input to the water. The commenter added that this approach will simplify interpretation of this definition. Two commenters requested that EPA adopt the following addition to the definition of firetube boiler to account for hybrid boilers: ''All owners or operators of hybrid boilers that have been registered/certified by the National Board of Boiler and Pressure Vessel Inspectors and/or the State as firetube boilers as indicated by ''Form P–2'' (Manufacturers Data Report For All Types of Boilers Except Watertube and Electric As Required by the Provisions of the American Society of Mechanical Engineers (ASME) Code Rules, Section I) shall be considered small units for the purpose of this subpart.''

Response: We agree with the distinction between a firetube and watertube boiler using the criteria of whether a unit has a containment shell or a steam drum. We consider the ASME Code Rules and Forms to be an acceptable and established method for classifying vessel types. We have modified the proposed definitions of watertube and firetube boilers to allow a facility to classify its hybrid vessel by one of two methods: (1) Determining whether or not the unit has a steam drum or containment system, or (2) the indication of firetube boiler on the ASME P–2 form.

Comment: Two commenters requested that the definition for large gaseous fuel units be changed to allow for units to combust oil during periods of natural gas supply emergencies or natural gas curtailment. The commenters added that if the unit combusts oil for periodic testing under these circumstances, this unit should not be automatically categorized in the large oil fuel subcategory.

Response: We agree that it is necessary for gas-fired units that are designed for combusting oil during periods of natural gas curtailment to periodically tune the unit for proper oil firing and combustion to be prepared for such periods. Based on review of current regulations in California regarding equipment testing of non-gaseous fuel, periodic testing of oil is allowed for a combined total of 48 hours during any calendar year. This periodic testing for up to 48 hours, which is in addition to periods of combusting oil during natural gas curtailment, will not cause a boiler to be categorized in the oil fuel subcategories. We have amended the definitions to clarify that gas boilers that fire liquid fuel for the purposes of periodic testing are not included in the liquid fuel subcategories.

D. Testing Methods

Comment: Several commenters requested that EPA list some specific examples of equivalent methods in Table 6 to subpart DDDDD. The commenters specifically added that since the promulgation of the NESHAP, EPA has received and approved many site-specific requests for the use ''equivalent'' methods. The commenters requested that any approved methods be added to Table 6.

Another commenter disagreed with deleting test method ASTM D3684–01 from Table 6 to subpart DDDDD. The commenter added that this test method should be retained in Table 6, and the final revised table should indicate that this test method is applicable for determining both arsenic and selenium.

Two commenters requested that the latest revisions of following test methods be listed in Table 6 to subpart DDDDD: ASTM D3684 for coal mercury analysis, ASTM D3683 for coal total selected metals, and ASTM D4208 for coal chlorine content. These

commenters added that these methods have a long history as established standard methods. By adding these methods to Table 6, sources or testing companies would not have to petition for approval of these established methods. These commenters also added that many coal chlorine levels exceed the upper bound (1136 parts per million) on the concentration range for repeatability and reproducibility on ASTM D6721, and that ASTM D4208 is a more appropriate testing method on coals with high chlorine concentrations.

Two commenters recommended that EPA provide authority to the States for approving equivalent testing methods that have already been accepted by EPA on multiple similar site-specific requests. The commenters added that providing authority to the States is an efficient way to determine approved equivalent testing methods.

Response: With this action, we have clarified the definition of equivalent method. Equivalent methods are voluntary consensus standards (VCS) or EPA methods which are applicable to the fuel type or target analyte being measured. Although we disagree with adding a complete list of equivalent methods already approved to the final rule itself, we have provided a list of these previously approved methods in the preamble to the final rule. We have also added a definition of VCS to the final rule to help clarify what equivalent methods are. Equivalent methods may be used in lieu of the prescribed methods in Table 6 to subpart DDDDD at the discretion of the source owner or operator. Therefore, publishing a list of or adding to the list of approved methods is not necessary. Similarly, State or EPA approval of equivalent methods is not necessary.

V. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is a ''significant regulatory action'' because it is likely to raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order. Accordingly, EPA submitted this action to the Office of Management and Budget (OMB) for review under Executive Order 12866 and any changes made in response to OMB recommendations have been documented in the docket for this action.

B. Paperwork Reduction Act

This final action imposes no new information collection requirements on the industry. Because there is no additional burden on the industry as a result of the final rule amendments, the information collection request has not been revised. OMB has previously approved the information collection requirements contained in the existing regulations under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, and has assigned OMB control number 2060–0551 (EPA No. 2028.02). A copy of the OMB approved Information Collection Request (ICR) may be obtained from Susan Auby, Collection Strategies Division, U.S. Environmental Protection Agency (2822T); 1200 Pennsylvania Ave., NW., Washington, DC 20460 or by calling (202) 566–1672.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act 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 impact of this final rule on small entities, a small entity is defined as: (1) A small business as defined by the Small Business Administration's regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, country, 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 that is not dominant in its field.

After considering the economic impacts of this final rule on small entities, we certify that this action will not have a significant economic impact on a substantial number of small entities. EPA has determined that none of the small entities will experience a significant impact because the final rule imposes no additional regulatory requirements on owners or operators of affected sources.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures by State, local, and tribal governments, in the aggregate, or by the private section, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost effective, for 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's 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 final rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. Although the original NESHAP had annualized costs estimated to range from $690 to $860 million (depending on the number of facilities eventually demonstrating eligibility for the health-based compliance alternatives), this final rule does not add new requirements that would increase this cost. Thus, this final rule is not subject to the requirements of sections 202 and 205 of the UMRA. In addition, EPA has determined that this final rule does not significantly or uniquely affect small governments because it contains no requirements that apply to such governments or impose obligations upon them. Therefore, this final rule is not subject to section 203 of the UMRA.

E. Executive Order 13132: Federalism

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

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 requirements discussed in this action will not supersede State regulations that are more stringent. Thus, Executive Order 13132 does not apply to this final rule.

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

Executive Order 13175 (65 FR 67249, November 6, 2000) requires EPA to develop an accountable process to ensure ''meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.''

This final rule does not have tribal implications. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175. No affected facilities are owned or operated by Indian tribal governments. Thus, Executive Order 13175 does not apply to this final rule.

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

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be ''economically significant,'' as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, EPA must evaluate the environmental health or safety effects of the planned rule on children and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by EPA.

This final rule is not subject to the Executive Order because EPA does not have reason to feel that the environmental health or safety risks associated with the emissions addressed by this action presents a disproportionate risk to children. This demonstration is based on the fact that this action does not affect the emissions limits contained in this final rule.

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

This final rule is not a ''significant energy actions'' as defined in Executive Order 13211 (66 FR 28355, May 22, 2001) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Further, we have concluded that this action is not likely to have any adverse energy effect.

I. National Technology Transfer and Advancement Act

As noted in the final rule, section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Pub. L. 104–113; 15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impracticable. Voluntary consensus standards are technical standards (*e.g.*, material specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA requires EPA to provide Congress, through the OMB, with explanations when EPA decides not to use available and applicable voluntary consensus standards.

This action involves technical standards. During the development of this final rule, EPA searched for voluntary consensus standards that might be applicable. EPA adopted the following standards in this final rule: (1) ASTM D2013–04, ''Standard Practice for Preparing Coal Samples for Analysis,'' (2) ASTM D2234–D2234M–03E01, ''Standard Practice for Collection of a Gross Sample of Coal,'' (3) ASTM D6721–01, ''Standard Test Method for Determination of Chlorine in Coal by Oxidative Hydroylsis Microcoulometry,'' (4) ASTM D3173–03, ''Standard Test Method for Moisture in the Analysis Sample of Coal and Coke,'' (5) ASTM D4606–03, ''Standard Test Method for Determination of Arsenic and Selenium in Coal by the Hydride Generation/Atomic Absorption Method,'' (6) ASTM D6357–04, ''Standard Test Methods for Determination of Trace Elements in Coal, Coke, and Combustion Residues from Coal Utilization Processes by Inductively Coupled Plasma Atomic Emission Spectrometry, Inductively Coupled Plasma Mass Spectrometry, and Graphite Furnace Atomic Absorption Spectrometry,'' (7) ASTM D6722–01, ''Standard Test Method for Total Mercury in Coal and Coal Combustion Residues by the Direct Combustion Analysis,'' and (8) ASTM D5865–04, ''Standard Test Method for Gross Calorific Value of Coal and Coke.''

Table 6 to subpart DDDDD of 40 CFR part 63 lists the fuel analysis methods included in this final rule. Under 40 CFR 63.7(f) in subpart A of the General Provisions, a source may apply to EPA for permission to use alternative test methods or alternative monitoring requirements in place of any required testing methods, performance specifications, or procedures.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the

Congress and to the Comptroller General of the United States. EPA will submit a report containing this action 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 final rule will be effective February 5, 2007.

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedures, Air pollution control, Hazardous substances, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: November 30, 2006.

Stephen L. Johnson,

Administrator.

■ For the reasons stated in the preamble, title 40, chapter 1 of the code of Federal Regulations is amended to read as follows:

PART 63—[AMENDED]

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

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

Subpart A—[Amended]

■ 2. Section 63.14 is amended by adding paragraphs (b)(55) through (62) to read as follows:

§ 63.14 Incorporation by reference.

* * * * *

(b) * * *

(55) ASTM D2013–04, Standard Practice for Preparing Coal Samples for Analysis, IBR approved for Table 6 to subpart DDDDD of this part.

(56) ASTM D2234–D2234M–03€[1], Standard Practice for Collection of a Gross Sample of Coal, IBR approved for Table 6 to subpart DDDDD of this part.

(57) ASTM D6721–01, Standard Test Method for Determination of Chlorine in Coal by Oxidative Hydrolysis Microcoulometry, IBR approved for Table 6 to subpart DDDDD of this part.

(58) ASTM D3173–03, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, IBR approved for Table 6 to subpart DDDDD of this part.

(59) ASTM D4606–03, Standard Test Method for Determination of Arsenic and Selenium in Coal by the Hydride Generation/Atomic Absorption Method, IBR approved for Table 6 to subpart DDDDD of this part.

(60) ASTM D6357–04, Standard Test Methods for Determination of Trace Elements in Coal, Coke, and Combustion Residues from Coal Utilization Processes by Inductively Coupled Plasma Atomic Emission Spectrometry, Inductively Coupled Plasma Mass Spectrometry, and Graphite Furnace Atomic Absorption Spectrometry, IBR approved for Table 6 to subpart DDDDD of this part.

(61) ASTM D6722–01, Standard Test Method for Total Mercury in Coal and Coal Combustion Residues by the Direct Combustion Analysis, IBR approved for Table 6 to subpart DDDDD of this part.

(62) ASTM D5865–04, Standard Test Method for Gross Calorific Value of Coal and Coke, IBR approved for Table 6 to subpart DDDDD of this part.

* * * * *

Subpart DDDDD—[Amended]

■ 3. Section 63.7491 is amended by revising paragraph (c) to read as follows:

§ 63.7491 Are any boilers or process heaters not subject to this subpart?

* * * * *

(c) An electric utility steam generating unit (including a unit covered by 40 CFR part 60, subpart Da) or a Mercury (Hg) Budget unit covered by 40 CFR part 60, subpart HHHH.

* * * * *

■ 4. Section 63.7510 is amended by revising paragraph (a) to read as follows:

§ 63.7510 What are my initial compliance requirements and by what date must I conduct them?

(a) For affected sources that elect to demonstrate compliance with any of the emission limits of this subpart through performance testing, your initial compliance requirements include conducting performance tests according to § 63.7520 and Table 5 to this subpart, conducting a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart, establishing operating limits according to § 63.7530 and Table 7 to this subpart, and conducting CMS performance evaluations according to § 63.7525. For affected sources that burn a single type of fuel, you are exempted from the initial compliance requirements of conducting a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart.

* * * * *

■ 5. Section 63.7522 is amended as follows:

■ a. By revising paragraph (b),

■ b. By revising paragraph (c),

■ c. By revising paragraph (d),

■ d. By revising paragraph (e),

■ e. By revising paragraph (f), and

■ f. By adding paragraphs (h) through (k).

§ 63.7522 Can I use emission averaging to comply with this subpart?

* * * * *

(b) Separate stack requirements. For a group of two or more existing large solid fuel boilers that each vent to a separate stack, you may average particulate matter or TSM, HCl and mercury emissions to demonstrate compliance with the limits in Table 1 to this subpart if you satisfy the requirements in paragraphs (c), (d), (e), (f), and (g) of this section.

(c) For each existing large solid fuel boiler in the averaging group, the emission rate achieved during the initial compliance test for the HAP being averaged must not exceed the emission level that was being achieved on November 12, 2004 or the control technology employed during the initial compliance test must not be less effective for the HAP being averaged than the control technology employed on November 12, 2004.

(d) The emissions rate from the existing large solid fuel boilers participating in the emissions averaging option must be in compliance with the limits in Table 1 to this subpart at all times following the compliance date specified in § 63.7495.

(e) You must demonstrate initial compliance according to paragraph (e)(1) or (2) of this section.

(1) You must use Equation 1 of this section to demonstrate that the particulate matter or TSM, HCl, and mercury emissions from all existing large solid fuel boilers participating in the emissions averaging option do not exceed the emission limits in Table 1 to this subpart.

$$\text{Ave Weighted Emissions} = \sum_{i=1}^{n}(\text{Er} \times \text{Hm}) \div \sum_{i=1}^{n}\text{Hm} \qquad \text{(Eq. 1)}$$

Where:

Ave Weighted Emissions = Average weighted emissions for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as calculated according to Table 5 to this subpart or by fuel analysis (as calculated by the applicable equation in § 63.7530(d))) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Hm = Maximum rated heat input capacity of boiler, i, in units of million Btu per hour.

n = Number of large solid fuel boilers participating in the emissions averaging option.

(2) If you are not capable of monitoring heat input, you may use Equation 2 of this section as an alternative to using Equation 1 of this section to demonstrate that the particulate matter or TSM, HCl, and mercury emissions from all existing large solid fuel boilers participating in the emissions averaging option do not exceed the emission limits in Table 1 to this subpart.

$$\text{Ave Weighted Emissions} = \sum_{i=1}^{n}(\text{Er} \times \text{Sm} \times \text{Cf}) \div \sum_{i=1}^{n}\text{Sm} \times \text{Cf} \qquad \text{(Eq. 2)}$$

Where:

Ave Weighted Emissions = Average weighted emission level for PM or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as calculated according to Table 5 to this subpart or by fuel analysis (as calculated by the applicable equation in § 63.7530(d))) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Sm = Maximum steam generation by boiler, i, in units of pounds.

Cf = Conversion factor, calculated from the most recent compliance test, in units of million Btu of heat input per pounds of steam generated.

(f) You must demonstrate continuous compliance on a monthly basis determined at the end of every month (12 times per year) according to paragraphs (f)(1) through (3) of this section. The first monthly period begins on the compliance date specified in § 63.7495.

(1) For each calendar month, you must use Equation 3 of this section to calculate the monthly average weighted emission rate using the actual heat capacity for each existing large solid fuel boiler participating in the emissions averaging option.

$$\text{Ave Weighted Emissions} = \sum_{i=1}^{n}(\text{Er} \times \text{Hb}) \div \sum_{i=1}^{n}\text{Hb} \qquad \text{(Eq. 3)}$$

Where:

Ave Weighted Emissions = monthly average weighted emission level for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate, (as calculated during the most recent compliance test, (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in § 63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Hb = The average heat input for each calendar month of boiler, i, in units of million Btu.

n = Number of large solid fuel boilers participating in the emissions averaging option.

(2) If you are not capable of monitoring heat input, you may use Equation 4 of this section as an alternative to using Equation 3 of this section to calculate the monthly weighted emission rate using the actual steam generation from the large solid fuel boilers participating in the emissions averaging option.

$$\text{Ave Weighted Emissions} = \sum_{i=1}^{n}(\text{Er} \times \text{Sa} \times \text{Cf}) \div \sum_{i=1}^{n}\text{Sa} \times \text{Cf} \qquad \text{(Eq. 4)}$$

Where:

Ave Weighted Emissions = monthly average weighted emission level for PM or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate, (as calculated during the most recent compliance test (as calculated according to Table 5 to this subpart) or by fuel analysis (as calculated by the applicable equation in § 63.7530(d))) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Sa = Actual steam generation for each calendar month by boiler, i, in units of pounds.

Cf = Conversion factor, as calculated during the most recent compliance test, in units of million Btu of heat input per pounds of steam generated.

(3) Until 12 monthly weighted average emission rates have been accumulated, calculate and report only the monthly average weighted emission rate determined under paragraph (f)(1) or (2) of this section. After 12 monthly weighted average emission rates have been accumulated, for each subsequent calendar month, use Equation 4A of this section to calculate the 12-month rolling average of the monthly weighted average emission rates for the current month and the previous 11 months.

$$E_{avg} = \frac{\sum_{i=1}^{n} ER_i}{12} \qquad \text{(Eq. 4A)}$$

Where:

Eavg = 12-month rolling average emission rate, (pounds per million Btu heat input)

ERi = Monthly weighted average, for month ''i'', (pounds per million Btu heat input)(as calculated by (f)(1) or (2))

* * * * *

(h) Common stack requirements. For a group of two or more existing large solid fuel boilers, each of which vents through a single common stack, you may average particulate matter or TSM, HCl and mercury to demonstrate compliance with the limits in Table 1 to this subpart if you satisfy the requirements in paragraph (i) or (j) of this section.

(i) For a group of two or more existing large solid fuel boilers, each of which vents through a common emissions control system to a common stack, that

does not receive emissions from units in other subcategories or categories, you may treat such averaging group as a single existing solid fuel boiler for purposes of this subpart and comply with the requirements of this subpart as if the group were a single boiler.

(j) For all other groups of boilers subject to paragraph (h) of this section, the owner or operator may elect to:

(1) Conduct performance tests according to procedures specified in § 63.7520 in the common stack (if affected units from other subcategories (*e.g.*, gas-fired units) or nonaffected units vent to the common stack, the units from other subcategories and nonaffected units must be shut down or vented to a different stack during the performance test); and

(2) Meet the applicable operating limit specified in § 63.7540 and Table 8 to this subpart for each emissions control system (except that, if each boiler venting to the common stack has an applicable opacity operating limit, then a single continuous opacity monitoring system may be located in the common stack instead of in each duct to the common stack).

(k) *Combination requirements.* The common stack of a group of two or more boilers subject to paragraph (h) of this section may be treated as a separate stack for purposes of paragraph (b) of this section and included in an emissions averaging group subject to paragraph (b) of this section.

■ 6. Section 63.7525 is amended by revising paragraphs (a) introductory text and (a)(1) to read as follows:

§ 63.7525 What are my monitoring, installation, operation, and maintenance requirements?

(a) If you have an applicable work practice standard for carbon monoxide, and your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, you must install, operate, and maintain a continuous emission monitoring system (CEMS) for carbon monoxide and oxygen according to the procedures in paragraphs (a)(1) through (6) of this section by the compliance date specified in § 63.7495. The carbon monoxide and oxygen shall be monitored at the same location at the outlet of the boiler or process heater.

(1) Each CEMS must be installed, operated, and maintained according to the applicable procedures under Performance Specification (PS) 3 or 4A of 40 CFR part 60, appendix B, and according to the site-specific monitoring plan developed according to § 63.7505(d).

* * * * *

■ 7. Section 63.7540 is amended by revising paragraph (a)(4) to read as follows:

§ 63.7540 How do I demonstrate continuous compliance with the emission limits and work practice standards?

(a) * * *

(4) If you demonstrate compliance with an applicable HCl emission limit through performance testing and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum chlorine input using Equation 5 of § 63.7530. If the results of recalculating the maximum chlorine input using Equation 5 of § 63.7530 are higher than the maximum chlorine input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the HCl emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(c).

* * * * *

■ 8. Section 63.7541 is amended as follows:

■ a. By revising paragraph (a) introductory text,

■ b. By revising paragraph (a)(2),

■ c. By adding paragraph (a)(5), and

■ d. By revising paragraph (b).

§ 63.7541 How do I demonstrate continuous compliance under the emission averaging provision?

(a) Following the compliance date, the owner or operator must demonstrate compliance with this subpart on a continuous basis by meeting the requirements of paragraphs (a)(1) through (5) of this section.

* * * * *

(2) You must maintain the applicable opacity limit according to paragraphs (a)(2)(i) through (ii) of this section.

(i) For each existing solid fuel boiler participating in the emissions averaging option that is equipped with a dry control system and not vented to a common stack, maintain opacity at or below the applicable limit.

(ii) For each group of boilers participating in the emissions averaging option where each boiler in the group is an existing solid fuel boiler equipped with a dry control system and vented to a common stack that does not receive emissions from affected units from other subcategories or nonaffected units, maintain opacity at or below the applicable limit at the common stack;

* * * * *

(5) For each existing large solid fuel boiler participating in the emissions averaging option venting to a common stack configuration containing affected units from other subcategories and/or nonaffected units, maintain the appropriate operating limit for each unit as specified in Tables 2 through 4 to this subpart that applies.

(b) Any instance where the owner or operator fails to comply with the continuous monitoring requirements in paragraphs (a)(1) through (5) of this section, except during periods of startup, shutdown, and malfunction, is a deviation.

■ 9. Section 63.7575 is amended as follows:

■ a. By revising the definitions for ''Firetube boiler,'' ''Fuel type,'' ''Large gaseous fuel subcategory,'' ''Large liquid fuel subcategory,'' ''Large solid fuel subcategory,'' ''Small gaseous fuel subcategory,'' ''Small liquid fuel subcategory,'' ''Watertube boiler,'' and

■ b. By adding definitions for ''Common Stack,'' ''Equivalent,'' and ''Voluntary Consensus Standard'' in alphabetical order.

§ 63.7575 What definitions apply to this subpart?

* * * * *

Common Stack means the exhaust of emissions from two or more affected units through a single flue.

* * * * *

Equivalent means the following only as this term is used in Table 6 to subpart DDDDD:

(1) An equivalent sample collection procedure means a published voluntary consensus standard or practice (VCS) or EPA method that includes collection of a minimum of three composite fuel samples, with each composite consisting of a minimum of three increments collected at approximately equal intervals over the test period.

(2) An equivalent sample compositing procedure means a published VCS or EPA method to systematically mix and obtain a representative subsample (part) of the composite sample.

(3) An equivalent sample preparation procedure means a published VCS or EPA method that: Clearly states that the standard, practice or method is appropriate for the pollutant and the fuel matrix; or is cited as an appropriate sample preparation standard, practice or method for the pollutant in the chosen VCS or EPA determinative or analytical method.

(4) An equivalent procedure for determining heat content means a published VCS or EPA method to obtain gross calorific (or higher heating) value.

(5) An equivalent procedure for determining fuel moisture content means a published VCS or EPA method to obtain moisture content. If the sample analysis plan calls for determining metals (especially the mercury, selenium, or arsenic) using an aliquot of the dried sample, then the drying temperature must be modified to prevent vaporizing these metals. On the other hand, if metals analysis is done on an ''as received'' basis, a separate aliquot can be dried to determine moisture content and the metals concentration mathematically adjusted to a dry basis.

(6) An equivalent pollutant (mercury, TSM, or total chlorine) determinative or analytical procedure means a published VCS or EPA method that clearly states that the standard, practice, or method is appropriate for the pollutant and the fuel matrix and has a published detection limit equal or lower than the methods listed in Table 6 to subpart DDDDD for the same purpose.

* * * * *

Firetube boiler means a boiler that utilizes a containment shell that encloses firetubes (tubes in a boiler having water on the outside and carrying the hot gases of combustion inside), and allows the water to vaporize and steam to separate. Hybrid boilers that have been registered/certified by the National Board of Boiler and Pressure Vessel Inspectors and/or the State as firetube boilers as indicated by ''Form P–2'' (Manufacturers' Data Report for All Types of Boilers Except Watertube and Electric, As Required by the Provisions of the ASME Code Rules, Section I), are considered to be firetube boilers for the purpose of this subpart.

* * * * *

Fuel type means each category of fuels that share a common name or classification. Examples include, but are not limited to, bituminous coal, subbituminous coal, lignite, anthracite, biomass, construction/demolition material, salt water laden wood, creosote treated wood, tires, residual oil. Individual fuel types received from different suppliers are not considered new fuel types except for construction/demolition material. Contraband, prohibited goods, or retired U.S. flags, burned at the request of a government agency, are not considered a fuel type for the purpose of this subpart.

* * * * *

Large gaseous fuel subcategory includes any watertube boiler or process heater that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment, gas supply emergencies, or for periodic testing of liquid fuel, has a rated capacity of greater than 10 MMBtu per hour heat input, and does not have a federally enforceable annual average capacity factor of equal to or less than 10 percent. Periodic testing of liquid fuel is not to exceed a combined total of 48 hours during any calendar year.

Large liquid fuel subcategory includes any watertube boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and does not have a federally enforceable annual average capacity factor of equal to or less than 10 percent. Large gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment, gas supply emergencies or for periodic testing of liquid fuel not to exceed a combined total of 48 hours during any calendar year are not included in this definition.

Large solid fuel subcategory includes any watertube boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and does not have a federally enforceable annual average capacity factor of equal to or less than 10 percent.

* * * * *

Small gaseous fuel subcategory includes any size of firetube boiler and any other boiler or process heater with a rated capacity of less than or equal to 10 MMBtu per hour heat input that burn gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply emergencies, or for periodic testing of liquid fuel. Periodic testing is not to exceed a combined total of 48 hours during any calendar year.

Small liquid fuel subcategory includes any size of firetube boiler and any other boiler or process with a rated capacity of less than or equal to 10 MMBtu per hour heat input that do not burn any solid fuel and burn any liquid fuel either alone or in combination with gaseous fuels. Small gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment, gas supply emergencies or for periodic testing of liquid fuel not to exceed a combined total of 48 hours during any calendar year are not included in this definition.

* * * * *

Watertube boiler means a boiler that incorporates a steam drum with tubes connected to the drum to separate steam from water.

* * * * *

Voluntary Consensus Standards or VCS mean technical standards (*e.g.*, materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. EPA/OAQPS has by precedent only used VCS that are written in English. Examples of VCS bodies are: American Society of Testing and Materials (ASTM), American Society of Mechanical Engineers (ASME), International Standards Organization (ISO), Standards Australia (AS), British Standards (BS), Canadian Standards (CSA), European Standard (EN or CEN) and German Engineering Standards (VDI). The types of standards that are not considered VCS are standards developed by: the U.S. states, *e.g.*, California (CARB) and Texas (TCEQ); industry groups, such as American Petroleum Institute (API), Gas Processors Association (GPA), and Gas Research Institute (GRI); and other branches of the U.S. government, *e.g.* Department of Defense (DOD) and Department of Transportation (DOT). This does not preclude EPA from using standards developed by groups that are not VCS bodies within their rule. When this occurs, EPA has done searches and reviews for VCS equivalent to these non-EPA methods.

* * * * *

■ 10. Table 6 and text before table to subpart DDDDD are revised to read as follows:

As stated in § 63.7521, you must comply with the following requirements for fuel analysis testing for existing, new or reconstructed affected sources. However, equivalent methods may be used in lieu of the prescribed methods at the discretion of the source owner or operator:

TABLE 6.—TO SUBPART DDDDD OF PART 63—FUEL ANALYSIS REQUIREMENTS

To conduct a fuel analysis for the following pollutant * * *	You must * * *	Using * * *
1. Mercury * * *	a. Collect fuel samples * * *	Procedure in § 63.7521(c) or ASTM D2234–D2234M–03€[1] (for coal) (IBR, see § 63.14(b)) or ASTM D6323–98 (2003) (for biomass) (IBR, See § 63.14(b)) or equivalent.
	b. Composite fuel samples * * *	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples * * *.	SW–846–3050B (for solid samples) or SW–846–3020A (for liquid samples) or ASTM D2013–04 (for coal) (IBR, see § 63.14(b)) or ASTM D5198–92 (2003) (for biomass) (IBR, see § 63.14(b)) or equivalent.
	d. Determine heat content of the fuel type * * *.	ASTM D5865–04 (for coal) (IBR, see § 63.24(b)) or ASTM E711–87 (for biomass) (IBR, see § 63.14(b)) or equivalent.
	e. Determine moisture content of the fuel type * * *.	ASTM D3173–03 (IBR, see § 63.14(b)) or ASTM E871–82 (1998) (IBR, see § 63.14(b)) or equivalent.
	f. Measure mercury concentration in fuel sample * * *.	ASTM D6722–01 (for coal) (IBR, see § 6314(b)) or SW–846–7471A (for solid samples) or SW–846–7470A (for liquid samples or equivalent.
	g. Convert concentration into units of pounds of pollutant per MMBtu of heat content.	
2. Total Selected metals * * *	a. Collect fuel samples * * *	Procedure in § 63.7521(c) or ASTM D2234–D2234M–03€[1] (for coal) (IBR, see § 63.14(b)) or ASTM D6323–98 (2003) (for biomass) (IBR, see § 63.14(b)) or equivalent.
	b. Composite fuel samples * * *	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples * * *.	SW–846–3050B (for solid samples) or SW–846–3020A (for liquid samples) or ASTM D2013–04 (for coal) (IBR, see § 63.14(b)) or ASTM D5198–92 (2003) (for biomass (IBR, see § 63.14(b)) or equivalent.
	d. Determine heat content of the fuel type * * *.	ASTM D5865–04 (for coal) (IBR, see § 63.14(b)) or ASTM E711–87 (for biomass) (IBR, see § 63.14(b)) or equivalent.
	e. Determine moisture content of the fuel type * * *.	ASTM D3173–03 (IBR, see § 63.14(b)) or ASTM E871–82 (IBR, see § 63.14(b)) or equivalent.
	f. Measure total selected metals concentration in fuel sample * * *.	SW–846–6010B or ASTM D6357–04 (for arsenic, beryllium, cadmium, chromium, lead, manganese, and nickel for all solid fuels) and ASTM D4606–03 (for selenium in coal) (IBR, see § 63.14(b)) or ASTM E885–88 (1996) for biomass) (IBR, see § 63.14(b)) or equivalent.
	g. Convert concentrations into units of pounds of pollutant per MMBtu of heat content.	
3. Hydrogen Chloride * * *	a. Collect fuel samples * * *	Procedure in § 63.7521(c) or ASTM D2234–D2234M–03€[1] (for coal) (IBR, see § 63.14(b)) or ASTM D6323–98 (2003) (for biomass) (IBR, see § 63.14(b)) or equivalent.
	b. Composite fuel samples * * *	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples * * *.	SW–846–3050B (for solid samples) or SW–846–3020A (for liquid samples) or ASTM D2013–04 (for coal) (IBR, see § 63.14(b)) or ASTM D5198–92 (2003) (for biomass) (IBR, see § 63.14(b)) or equivalent.
	d. Determine heat content of the fuel type * * *.	ASTM D5865–04 (for coal) (IBR, see § 63.14(b)) or ASTM E711–87 (1996) (for biomass) (IBR, see § 63.14(b)) or equivalent.
	e. Determine moisture content of the fuel type * * *.	ASTM D3173–03 (IBR, see § 63.14(b)) or ASTM E871–82 (1998) or equivalent.
	f. Measure chlorine concentration in fuel sample * * *.	SW–846–9250 or ASTM D6721–01 (for coal) or ASTM E776–87 (1996) (for biomass) (IBR, see § 63.14(b)) or equivalent.
	g. Convert concentrations into units of pounds of pollutant per MMBtu of heat content..	

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 70

[FDMS Docket No. EPA–R03–OAR–2006–0933; FRL–8252–3]

State Operating Permit Programs; Delaware; Amendments to the Definition of a ''Major Source''

AGENCY: Environmental Protection Agency (EPA).

ACTION: Direct final rule.

SUMMARY: EPA is taking direct final action to amend the State of Delaware's operating permit program to correct the definition of ''major source.'' Delaware's revision was submitted in response to the Clean Air Act (CAA) Amendments of 1990 that required States to submit to EPA program revisions in accordance with the Federal Title V regulations. The EPA granted final approval of Delaware's operating permit program on November 19, 2001. Delaware amended its operating permit program to address the Federal EPA amendment to the Federal Title V regulation, which went into effect on November 27, 2001, and this action approves this amendment. Any parties interested in commenting on this action granting approval of Delaware's amendment to the Title V operating permit program should do so at this time.

DATES: This rule is effective on February 5, 2007 without further notice, unless EPA receives adverse written comment by January 5, 2007. If EPA receives such comments, it will publish a timely withdrawal of the direct final rule in the **Federal Register** and inform the public that the rule will not take effect.

ADDRESSES: Submit your comments, identified by Docket ID Number EPA–R03–OAR–2006–0933 by one of the following methods:

A. *http://www.regulations.gov.* Follow the on-line instructions for submitting comments.

B. E-mail: *campbell.dave@epa.gov.*

C. Mail: EPA–R03–OAR–2006–0933, David Campbell, Chief, Permits and Technical Assessment Branch, Mailcode 3AP11, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103.

D. Hand Delivery: At the previously-listed EPA Region III address. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA–R03–OAR–2006–0933. EPA's policy is that all comments received will be included in the public docket without change, and may be made available online at *http://www.regulations.gov*, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *www.regulations.gov* or e-mail. The *www.regulations.gov* Web site is an ''anonymous access'' system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through *www.regulations.gov*, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: All documents in the electronic docket are listed in the *www.regulations.gov* index. 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, 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 during normal business hours at the Air Protection Division, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103. Copies of the State submittal are available at the Delaware Department of Natural Resources & Environmental Control, 89 Kings Highway, P.O. Box 1401, Dover, Delaware 19903.

FOR FURTHER INFORMATION CONTACT: Rosemarie Nino, (215) 814–3377, or by e-mail at *nino.rose@epa.gov.*

SUPPLEMENTARY INFORMATION: On May 18, 2004, the State of Delaware submitted an amendment to its State operating permit program. This amendment is the subject of this document and this section provides additional information on the amendment by addressing the following questions:

What Is the State Operating Permit Program?
What Are the State Operating Permit Program Requirements?
What Is Being Addressed in This Document?
What Is Not Being Addressed in This Document?
What Changes to Delaware's Operating Permit Program Is EPA Approving?
What Action Is Being Taken by EPA?

What Is the State Operating Permit Program?

The Clean Air Act Amendments of 1990 required all States to develop operating permit programs that meet certain Federal criteria. When implementing the operating permit programs, the States require certain sources of air pollution to obtain permits that contain all of their applicable requirements under the Clean Air Act (CAA). The focus of the operating permit program is to improve enforcement by issuing each source a permit that consolidates all of its applicable CAA requirements into a Federally-enforceable document. By consolidating all of the applicable requirements for a given air pollution source into an operating permit, the source, the public, and the State environmental agency can more easily understand what CAA requirements apply and how compliance with those requirements is determined.

Sources required to obtain an operating permit under this program include ''major'' sources of air pollution and certain other sources specified in the CAA or in EPA's implementing regulations. For example, all sources regulated under the acid rain program, regardless of size, must obtain operating permits. Examples of ''major'' sources include those that have the potential to emit 100 tons per year or more of volatile organic compounds, carbon monoxide, lead, sulfur dioxide, nitrogen oxides, or particulate matter (PM_{10} and $PM_{2.5}$); those that emit 10 tons per year of any single hazardous air pollutant (HAP) specifically listed under the CAA; or those that emit 25 tons per year or more of a combination of HAPs. In areas that are not meeting the national ambient air quality standards (NAAQS) for ozone, carbon monoxide, or particulate matter, major sources are defined by the gravity of the nonattainment classification.

Federal Register

Wednesday,
December 28, 2005

Part II

Environmental Protection Agency

40 CFR Part 63

National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters: Reconsideration; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[OAR–2002–0058; FRL–8011–5]

RIN 2060–AM97

National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters: Reconsideration

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule, amendments; notice of final action on reconsideration.

SUMMARY: EPA is promulgating amendments to the national emission standards for hazardous air pollutants (NESHAP) for industrial, commercial, and institutional boilers and process heaters which EPA promulgated on September 13, 2004. After promulgation of the final rule for boilers and process heaters, the Administrator received petitions for reconsideration of certain provisions in the final rule. On July 27, 2005, EPA published a notice of reconsideration and requested public comment on certain aspects of the health-based compliance alternatives, as outlined in 40 CFR 63.7507 and appendix A to the final rule (40 CFR part 63, subpart DDDDD). After evaluating public comment on the notice of reconsideration, we are retaining the health-based compliance alternatives in the final rule in substantially the same form. However, we are making a limited number of amendments to 40 CFR 63.7507 and appendix A to the final rule to improve and clarify the process for demonstrating eligibility to comply with the health-based compliance alternatives contained in the final rule.

DATES: The final rule amendments are effective on February 27, 2006.

ADDRESSES: EPA has established a docket for this action under Docket ID No. EPA–OAR–2002–0058. All documents in the docket are listed in on the *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 information, such as copyrighted materials, 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 *www.regulations.gov* or in hard copy form at the Air and Radiation Docket, Docket ID No. EPA–OAR–2002–0058, EPA/DC, EPA West, Room B102, 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 Air and Radiation Docket is (202) 566–1742.

FOR FURTHER INFORMATION CONTACT: For information concerning applicability and rule determinations, contact your State or local representative or appropriate EPA Regional Office representative. For information concerning rule development, contact Jim Eddinger, Combustion Group, Emission Standards Division (C439–01), U.S. EPA, Research Triangle Park, North Carolina 27711, telephone number (919) 541–5426, fax number (919) 541–5450, e-mail address: *eddinger.jim@epa.gov.*

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

Category	SIC code	NAICS code	Examples of potentially regulated entities
Any industry using a boiler or process heater in the final rule.	24	321	Manufacturers of lumber and wood products.
	26	322	Pulp and paper mills.
	28	325	Chemical manufacturers.
	29	324	Petroleum refiners and manufacturers of coal products.
	30	316, 326, 339	Manufacturers of rubber and miscellaneous plastic products.
	33	331	Steel works, blast furnaces.
	34	332	Electroplating, plating, polishing, anodizing, and coloring.
	37	336	Manufacturers of motor vehicle parts and accessories.
	49	221	Electric, gas, and sanitary services.
	80	622	Health services.
	82	611	Educational Services.

Worldwide Web (WWW). In addition to being available in the docket, an electronic copy of the final rule is also available on the WWW through the Technology Transfer Network (TTN). Following signature, a copy of the final rule will be posted on the TTN policy and guidance page for newly proposed or promulgated rules at the following address: *http://www.epa.gov/ttn/oarpg.* The TTN provides information and technology exchange in various areas of air pollution control.

Judicial Review. Under section 307(b)(1) of the CAA, judicial review of the final rule amendments to the NESHAP is available by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by February 27, 2006. Only those objections that were raised with reasonable specificity during the period for public comment may be raised during judicial review. Under section 307(b)(2) of the CAA, the requirements that are the subject of the final rule amendments may not be challenged later in civil or criminal proceedings brought by EPA to enforce these requirements.

Background Information Document. EPA proposed and provided notice of the reconsideration of the NESHAP for industrial, commercial, and institutional boilers and process heaters on June 27, 2005 (70 FR 36907), and received 35 comment letters on the proposal. A memorandum ''National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, Summary of Public Comments and Responses to Reconsideration of the Final Rule,'' containing EPA's responses to each public comment is available in Docket No. OAR–2002–0058.

Organization of this document: The information presented in this preamble is organized as follows:

I. What is the statutory authority for the final rule?
II. Background
III. What revisions were made as a result of the reconsideration?
A. Adoption of a Weighted Average Stack Height Metric for Appendix A to the Final Rule
B. Correction Regarding Sources That May Demonstrate Eligibility for Health-Based Compliance Alternatives
C. Review of Eligibility Demonstrations by Permitting Agencies
D. Clarification of Eligibility Criteria
E. Timeline for New or Reconstructed Sources To Submit Preliminary Submission of Eligibility

F. Requirement for Title V Permit Conditions
G. Health-Based Alternative for Manganese Emissions and Total Selected Metals Standard
IV. What are the responses to significant comments?
A. Methodology and Criteria for Demonstrating Eligibility for the Health-based Compliance Alternatives
B. Tiered Risk Assessment Methodology
C. Look-up Tables
D. Site-Specific Risk Assessment
E. Background Concentrations and Emissions From Other Sources
F. Health-Based Compliance Alternative for Metals
G. Deadline for Submission of Health-Based Applicability Determinations
H. Proposed Corrections to the Health-Based Compliance Alternatives
I. Review of Eligibility Demonstrations and Relationship With Title V
J. Miscellaneous
V. Impacts of the Final Rule
VI. Statutory and Executive Order (EO) 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. Congressional Review Act

I. What is the statutory authority for the final rule?

Section 112 of the Clean Air Act (CAA) requires EPA to list categories and subcategories of major sources and area sources of hazardous air pollutants (HAP) and to establish NESHAP for the listed source categories and subcategories. Industrial, commercial and institutional boilers (ICI), and process heaters were listed on July 16, 1992 (57 FR 31576). Major sources of HAP are those that have the potential to emit greater than 10 tons per year (tpy) of any one HAP or 25 tpy of any combination of HAP.

II. Background

On September 13, 2004 (69 FR 55218), we promulgated the NESHAP for ICI boilers and process heaters pursuant to section 112 of the CAA. Under section 112(d) of the CAA, the NESHAP must reflect the maximum degree of reduction in emissions of HAP that is achievable, taking into consideration the cost of achieving the emissions reductions, any non-air quality health and environmental impacts, and energy requirements. This level of control is commonly referred to as maximum achievable control technology (MACT). However, section 112(d)(4) of the CAA also states that ''[w]ith respect to pollutants for which a health threshold has been established, the Administrator may consider such threshold level, with an ample margin of safety, when establishing emissions standards under this subsection.''

We proposed standards for ICI boilers and process heaters on January 13, 2003 (68 FR 16660). The preamble for the proposed rule described the rationale for the proposed rule and solicited public comments. We requested comment on incorporating various risk-based approaches (based on section 112(d)(4) and other provisions of the CAA) into the final rule to reduce the cost of regulatory controls on those facilities that pose little risk to public health and the environment. (See 68 FR 1688–1693.) Industry trade associations, owners/operators of boilers and process heaters, State regulatory agencies, local government agencies, and environmental groups submitted comments on the proposed risk-based approaches. We received a total of 218 public comment letters on the proposed rule during the comment period. We summarized major public comments on the proposed risk-based approaches, along with our responses to those comments, in the preamble to the final rule (69 FR 55239) and in the comment response memorandum, ''Response to Public Comments on Proposed Industrial, Commercial, and Institutional Boilers and Process Heaters NESHAP (Revised)'' which was placed in the docket for the final rule.

In the final rule, we adopted health-based compliance alternatives for the hydrogen chloride (HCl) emission limit and the total selected metals (TSM) emission limit, based on our authority under section 112(d)(4) of the CAA. Affected sources that successfully demonstrate that they are eligible for the HCl health-based compliance alternative are not required to demonstrate compliance with specific HCl emissions limits in table 1 to the final rule, but are still subject to operating and monitoring requirements in the final rule (subpart DDDDD of 40 CFR part 63). Affected sources that demonstrate eligibility for the health-based compliance alternative for TSM are still subject to a technology-based (MACT) TSM emission limit and operating and monitoring requirements in the final rule (subpart DDDDD of 40 CFR part 63) except that they may demonstrate compliance with this TSM emission limit based on the sum of emissions for seven metals, instead of the eight selected metals, by excluding manganese emissions.

The methodology and criteria for affected sources to use in demonstrating eligibility for the health-based compliance alternatives were promulgated in appendix A to subpart DDDDD of 40 CFR part 63. (See 69 FR 55282.) Appendix A specifies the process units and pollutants that must be included in the eligibility demonstration, the emissions testing methods, the criteria for determining if an affected source is eligible, the risk assessment methodology (look-up table analysis or site-specific risk analysis), the contents of the eligibility demonstration, the schedule for submission of the self-certified eligibility demonstrations, and the methods for ensuring that an affected source remains eligible. For an affected source to be eligible for the health-based compliance alternatives, the owner/operator of the source must conduct a risk assessment, as described in appendix A to the final rule, and submit the risk assessment, also called the eligibility demonstration, to the permitting authority along with a signed certification that the assessment is an accurate depiction of the affected facility. To ensure the source remains eligible, federally enforceable limits reflecting the parameters used in the eligibility demonstration must be incorporated into its title V permit.

Following promulgation of the final rule, the Administrator received petitions for reconsideration pursuant to section 307(d)(7)(B) of the CAA from the Natural Resources Defense Council (NRDC), Environmental Integrity Project (EIP), and General Electric (GE).[1] Under this provision, the Administrator is to initiate reconsideration proceedings if the petitioner can show that it was impracticable to raise an objection to a rule within the public comment period

[1] In addition to the petitions for reconsideration, two petitions for judicial review of the final rule were filed with the U.S. Court of Appeals for the District of Columbia by NRDC, Sierra Club, and EIP (No. 04–1385, D.C. Cir.) and American Municipal Power—Ohio and Ohio cities of Dover, Hamilton, Orrville, Painesville, Shelby, and St. Marys (No. 04–1386, D.C. Cir.). The two cases have been consolidated. Eleven additional parties have filed petitions to intervene: American Home Furnishings Alliance, Council of Industrial Boiler Owners, American Forest and Paper Association, American Chemistry Council, National Petrochemical and Refiners Association, American Petroleum Institute, National Oilseed Processors Association, Coke Oven Environmental Task Force, Utility Air Regulatory Group, and Alliance of Automobile Manufacturers are intervening with regard to the health-based compliance alternatives.

or that the grounds for the objection arose after the public comment period.

NRDC and EIP initially requested that EPA reconsider seven issues reflected in the final rule that they believe could not have been practicably addressed during the public comment period. EIP also filed a supplement to this petition which raised additional issues for reconsideration. Together, NRDC and EIP requested reconsideration of the following issues: (1) The adoption of ''no control'' MACT floors for certain subcategories and pollutants; (2) establishing risk-based alternatives on a plant-by-plant basis; (3) the existence of health thresholds for HCl and manganese; (4) consideration of background pollution and co-located emission sources; (5) establishing a health-based compliance alternative for a pollutant (HCl) that serves as a surrogate for other inorganic pollutants; (6) promulgating a health-based compliance alternative that allows low risk sources of manganese emissions to comply with the MACT limitations for metals without counting manganese; (7) the procedures for demonstrating compliance with the health-based alternatives; (8) consideration of emissions during periods of startup, shutdown, malfunction and, (9) the cost effectiveness of the health-based alternatives. The NRDC and EIP petition also requested that EPA stay the effectiveness of the health-based compliance alternatives pending reconsideration. By letters dated January 28, 2005, we informed NRDC and EIP that we intended to grant their joint petition for reconsideration.

On June 27, 2005, we decided to reconsider (70 FR 36907) several of the issues raised in the NRDC and EIP petition pertaining to certain provisions of the health-based compliance alternatives in appendix A to the final rule. We denied the petitioners' request to stay because in this case, a stay was not necessary to protect the public health or provide a more adequate timeline for compliance planning. We are continuing to review the issue raised by GE with respect to the emissions averaging provision of the final rule and published proposed action on that petition on October 31, 2005 (70 FR 62264).[2]

In the June 27, 2005, notice of reconsideration, we specifically solicited comment in the following eight areas: (1) The methodology and criteria for demonstrating eligibility for the health-based compliance alternatives; (2) the use of a tiered analysis in appendix A to the final rule and the application of the principles set forth in the 1994 National Academy of Sciences report, ''Science and Judgment in Risk Assessment'' (in response to the concerns expressed by the petitioners, we entered this document into the public docket for review); (3) the methodology used to develop the look-up tables including average stack heights, the use of conservative assumptions to account for other variables such as meteorology, and the derivation of different look-up table values based on the distance from the property line; (4) the approach for conducting a site-specific risk assessment and the criteria set forth in section 7 of appendix A to the final rule; (5) the approach for selecting a hazard index (HI) and hazard quotient (HQ) applicability cutoff value of 1.0, exclusive of background or co-located emissions, and the deferral of further consideration of background and co-located sources until we assess facility-wide emissions of HAP in future residual risk actions; (6) the appropriateness of adopting a health-based compliance alternative for manganese and using the same TSM emission limit in table 1 to subpart DDDDD of 40 CFR part 63 as a limitation for seven metals, while excluding manganese from the calculation; (7) whether we should or should not extend the deadline for submission of eligibility demonstrations in light of this reconsidered action; and (8) proposed corrections regarding the scope sources that are able to demonstrate eligibility for the health-based compliance alternatives. The responses to the significant comments received on these eight areas are discussed later in this preamble. A comprehensive response to public comments is also available in a document entitled ''National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, Summary of Public Comments and Responses to Reconsideration of the Final Rule,'' which can be found in the docket for this action (Docket No. OAR–2002–0058).

III. What revisions were made as a result of the reconsideration?

We are making a limited number of amendments to 40 CFR 63.7507 and appendix A to the final rule to improve and clarify the process for demonstrating eligibility to comply with the health-based alternatives contained in the final rule. Overall, however, we are retaining the health-based compliance alternatives in substantially the same form.

A. Adoption of a Weighted Average Stack Height Metric for Appendix A to the Final Rule

Sections 4 and 6 of appendix A to the final rule have been modified to incorporate procedures for calculating a weighted average stack height metric for use in a look-up table analysis. Equation 3 was added to section 6 to calculate a weighted average stack height for determining the maximum allowable HCl-equivalent emission rate in table 2 to the final rule. Equation 4 was also added to section 6 to calculate a weighted average stack height for determining the maximum allowable manganese emission rate in table 3 to the final rule.

The amendments made to incorporate the weighted average stack height metric also required conforming modifications to the format of equations 1 and 2 of appendix A to the final rule. Equation 1 in section 4 of appendix A was amended to clarify the calculation of the maximum hourly emissions.

B. Correction Regarding Sources That May Demonstrate Eligibility for Health-Based Compliance Alternatives

We revised the text of 40 CFR 63.7507(a) and the title of appendix A to the final rule to clarify that all subpart DDDDD, 40 CFR part 63, sources subject to HCl and TSM emission limits may demonstrate eligibility for the health-based compliance alternatives, not just large solid fuel-fired units.

C. Review of Eligibility Demonstrations by Permitting Agencies

Sections 10 and 11 of appendix A to the final rule have been amended to explicitly state that eligibility demonstrations may be reviewed by permitting agencies (i.e., EPA or any State, local, or tribal agency that has been delegated title V permitting authority) to verify that they meet the requirements of appendix A and are technically sound. To accommodate this addition and to clarify appendix A, we also moved some of the provisions in sections 9 and 10 of appendix A to different sections.

We also amended section 6 of appendix A to the final rule to clarify that a look-up table analysis may not be used for the eligibility demonstration if the permitting authority determines it is not appropriate based on site specific factors. A site specific analysis under section 7 of appendix A would be required in these circumstances.

[2] GE requested reconsideration of the emissions averaging provisions of the final rule to address how this provision might apply in the context of emissions units that vent to a single stack.

D. Clarification of Eligibility Criteria

With respect to site-specific compliance demonstration, we revised sections 5(c)(2) and (d)(2) of appendix A to the final rule to clarify the locations where hazards must be assessed. The phrase ''where people live'' has been changed to indicate that hazards must be assessed where people live or congregate (e.g., including locations such as schools or daycare centers). We also reworded other parts of these two paragraphs to better express our original intent.

E. Timeline for New or Reconstructed Sources To Submit Preliminary Submission of Eligibility

We amended section 9(c)(1) of appendix A to the final rule to specify when new or reconstructed sources that start up after the effective date of subpart DDDDD, 40 CFR part 63, must submit a preliminary eligibility demonstration. New or reconstructed sources must submit this preliminary eligibility demonstration at the same time that the source submits an application for approval of construction or reconstruction.

F. Requirement for Title V Permit Conditions

In conjunction with other revisions to section 10 of appendix A to the final rule discussed above, we moved the existing requirement that sources submit certain parameters for incorporation into a title V permit into section 8 to appendix A to the final rule and clarified that the proposed permit conditions must be submitted at the same time as the rest of the eligibility demonstration. Section 8, which addresses the contents of the eligibility demonstration, is a more natural and logical place to include this requirement. We also expanded the list of parameters that should be considered for inclusion as enforceable permit limits.

G. Health-Based Alternative for Manganese Emissions and Total Selected Metals Standard

We are retaining the health-based compliance alternative to the TSM standard for sources that can demonstrate eligibility based on emissions of manganese. However, we are modifying the language in 40 CFR 63.7507(b) and related parts of appendix A to the final rule slightly to clarify that eligible sources are subject to two alternative requirements—one is the health-based compliance alternative for manganese emissions in appendix A and the other is an alternative MACT emissions limitations for seven selected metals set forth in 40 CFR 63.7507(b).

With respect to manganese emissions, an eligible source must satisfy the requirements of appendix A to the final rule, which include the requirement to submit, for incorporation as conditions in the title V permit, the parameters that make the affected source eligible for the health-based alternative. Compliance with these and other appendix A requirements for manganese represents compliance with the health-based alternative for these manganese emissions.

However, the remaining seven metals that are covered by the technology-based TSM standard must continue to meet a technology-based standard based on MACT. Thus, we are retaining the existing requirement that eligible sources comply with the TSM limit in table 1 to the final rule based on the sum of seven metals rather than eight. Using the same methodology we used to develop the TSM MACT limitation for eight metals, we derived an alternative MACT limitation for seven metals for the final rule promulgated on September 13, 2004. This alternative applies only to those sources that demonstrate eligibility for the health-based alternative for manganese emissions. Because our MACT methodology yielded the same MACT standard for both seven and eight metals, we expressed the alternative MACT standard for seven metals as a requirement to comply with the standard in table 1 based on the sum of seven metals instead of repeating the numerical standard in 40 CFR 63.7507(b).

We explain our basis for these revisions further below in response to individual comments.

IV. What are the responses to significant comments?

We received 35 public comment letters on the proposed rule and notice of reconsideration. Complete summaries of all the comments and EPA responses are found in the Response-to-Comments document (see **SUPPLEMENTARY INFORMATION** section). The most significant comments are summarized below.

A. Methodology and Criteria for Demonstrating Eligibility for the Health-Based Compliance Alternatives

Comment: Two commenters suggested that EPA provide for flexibility and engineering judgment by allowing an applicability cutoff HI or HQ of greater than 1.0 in individual situations. One commenter stated that a value of 1.0 is the most stringent margin of safety required and the Agency could use a HI greater than 1.0 in certain cases. The commenter added that no additional margin of safety is required because the Reference Concentration (RfC) calculation contains many layers of protection, including safety factors to account for uncertainty.

One commenter suggested the use of an applicability cutoff HI or HQ value of at most 0.5 in order to account for cumulative and persistent risk.

Response: We disagree that an HI or HQ value other than 1.0 should be used as an applicability cutoff value for the health-based compliance alternatives. HI and HQ values are based on peer reviewed reference values such as EPA's reference concentrations (RfC). An RfC is an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure or a daily exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious non-cancer effects during a lifetime. An HI or HQ less than or equal to 1.0 means that the concentration of the pollutant (in air) is less than or equal to the reference value, and, therefore, is presumed to be without appreciable risk of adverse health effects.

As mentioned by commenters, RfC values contain uncertainty factors in order to account for scientific uncertainties that are identified in the literature. We acknowledge that EPA can consider the uncertainty inherent in these reference values when making risk-based determinations. For the health-based compliance alternatives in this rule, using an HI and HQ of 1.0 as a health-protective default is appropriate and, along with the risk assessment methods specified in appendix A to the final rule, protects public health with an ample margin of safety as required by CAA section 112(d)(4).

Comment: One commenter did not support the use of a HI less than or equal to 1.0 as the applicability cutoff value for determining eligibility with the HCl health-based compliance alternative. The commenter asserted that the HI should be changed to less than 10 but greater than 1.0 due to the additive effect of several health protective factors used for deriving the HCl HI value. Specifically, the commenter highlighted that it is overly conservative to apply the chlorine RfC to evaluate the exposure to chlorine. The commenter added that chlorine reacts in the atmosphere to form HCl, and the commenter requested EPA to evaluate the exposure to chlorine using

the equivalent amount of HCl formed in the atmospheric reactions.

Response: As we argue above, we disagree that an HI or HQ value other than 1.0 should be used as an applicability cutoff value for the health-based compliance alternatives. An HI of 1.0 corresponds to a level of pollutant exposure that is unlikely to result in adverse health effects over a lifetime. We acknowledge that EPA can consider the uncertainty inherent in reference values when making risk-based determinations. However, for the health-based compliance alternatives, using an HI and HQ of 1.0 as a health-protective default is appropriate and helps protect public health with an ample margin of safety.

Additionally, as stated above, we believe that it is appropriate to apply our risk assessment methodology to the health-based alternative compliance options in the final rule. This methodology includes calculating hazard to the individual most exposed to pollutant emissions from the source, which helps ensure that public health is protected with an ample margin of safety.

We also disagree with the commenter's suggestion to account for atmospheric reactions of chlorine to form HCl. Impacts from chlorine can occur shortly after release if a population lives near an emission point. Chlorine has a lower reference value than HCl. Thus, we make the health-protective assumption that people are exposed to chlorine emitted from the source prior to any conversion into the less potent HCl. This approach, along with the other requirements of appendix A to the final rule, helps ensure that public health is protected with an ample margin of safety.

B. Tiered Risk Assessment Methodology

Comment: Multiple commenters supported the flexibility and efficiency of a tiered risk assessment methodology, and these commenters stated that the methodology set forth in appendix A to the final rule provided an appropriate balance of conservatism and accuracy to protect the public health with an ample margin of safety. One commenter added that the tiered approach provides a simple, conservative first tier analysis that companies can achieve without hiring an outside consultant to demonstrate compliance with the health-based compliance alternative. This commenter also feels it is necessary to allow facilities to conduct site-specific analyses in tandem with the look-up analysis so that facilities can still demonstrate compliance with the health-based alternatives in the event that the source fails the look-up analysis. Other commenters added that a tiered approach is less arbitrary than a control-based standard, which requires equivalent controls across the board, without considering the risk of an affected source.

Response: We agree with the flexible, efficient, and health-protective nature of a two-tiered risk approach. We concluded that a tiered risk approach is consistent with both the commenters' support for an approach that minimizes the impact on low-risk facilities and EPA's statutory mandate under CAA section 112.

C. Look-up Tables

Comment: Several commenters disagreed with use of the look-up tables because they believe there is an insufficient level of conservatism inherent in the look-up tables during worse-case scenarios. These commenters emphasized that if the look-up tables remained as a result of the reconsideration, the look-up tables should not be used when unique site-specific factors such as building downwash, rain caps, or complex terrain occur, because these factors are not accounted for in the look-up tables. One commenter requested that EPA clarify that sources must comply with the MACT standard in the event that a permitting agency rejects the use of look-up table analysis for demonstrating eligibility with the health-based compliance alternative.

Response: We continue to believe that the look-up tables can provide an efficient and cost-effective method for sources to comply with the health-based alternative compliance options while also protecting the public health with an ample margin of safety. However, we agree that the protective measures inherent in the look-up tables do not necessarily justify their use in all cases. We developed the look up tables by running the SCREEN3 atmospheric dispersion model with worst-case meteorology defaults, an assumption of flat terrain, an assumption that building downwash effects are not present, and an assumption that the plume does not encounter a raincap or other obstruction. As several commenters identified, we recognize that site-specific factors not accounted for in the SCREEN3 dispersion modeling, such as building downwash, the presence of rain caps, and complex terrain, could make the use of the tables inappropriate for some sources. Therefore, we agree with limiting the use of the look-up tables to those situations where the tables can conservatively represent actual site conditions. In order to prevent the misuse of look-up tables, we are adding language in section 6 of appendix A to the final rule to clarify that, although the lookup tables are presumed to be applicable in each case, permit agencies have the authority to determine on a site-specific basis, that look-up tables may not be used if unique site-specific factors, for which the look-up tables do not account, make their use inappropriate. In such situations, a source would have to demonstrate eligibility using a site-specific risk assessment that does account for these unique factors. If a source is unable to make this demonstration (e.g. if a permitting authority ultimately finds the eligibility demonstration deficient on technical grounds), the source must then comply with the technology-based standards in the NESHAP.

Comment: Three commenters suggested alternatives to the average stack height metric. One commenter proposed an alternate method of four stack height ranges which is currently used in the State's hazardous air pollutant rule. Two commenters requested EPA to consider weighted stack heights and cited the use of a weighted stack height metric in the proposed amendments to the plywood NESHAP. The commenters suggested the weighted stack height more accurately portrays the potential risk than the average stack height metric.

Four commenters expressed concern with the appropriateness and accuracy of using the average stack height metric in the look-up tables. Three of these commenters suggested limiting the use of the look-up tables to facilities with similar stack heights to those assumed in the model.

One commenter disagreed with the use of the average stack height, contending that this approach understates risk and that EPA lacked a justification and documentation on how the EPA chose this metric. According to this commenter, risk is understated when a calculation averages the shortest, most-highly polluting stack located closest to neighboring populations with another emission point that is taller, cleaner, and farther away. The commenter also contended that there is no documentation of the analysis or data at any step of the final rulemaking, including this action, which supports the development of the average stack height metric that would enable a member of the public to evaluate EPA's methodology.

Response: We agree that the average stack height is not the best metric for characterizing risk, and that a more precise approach is the weighted stack

height metric proposed in the Plywood NESHAP amendments. We are changing the stack height metric in the boilers and process heaters rule by adding two equations to appendix A to the final rule, similar to the approach used for equations 3 and 4 listed in appendix B of 40 CFR part 63, subpart DDDD. Equations 1 and 2 of appendix A of 40 CFR part 63, subpart DDDDD, will also be modified to harmonize the existing calculations of appendix A with the new weighted stack height metric. The complete rationale for selecting the weighted stack height metric can be found in the amendments to the plywood NESHAP (70 FR 44021).

There are situations where the average stack height is health protective, (e.g. when most emissions are from the tallest stacks) and situations where the average stack height metric is not health protective, (e.g., when most emissions are from the shortest stacks). The toxicity- and emissions-weighted stack height, which we are incorporating into appendix A to the final rule, is more health protective when most emissions are from the shortest stacks. Further, using this more precise method does not undercut our reliance on health-protective assumptions in the look-up table analysis when most of the emissions come from taller stacks.

Comment: Several commenters suggested that the use of the minimum distance to property boundary metric is overly conservative. Two commenters requested EPA to allow a weighted average for the distance to property boundary when there are multiple emission units. These two commenters argued that this metric would portray more accurate estimates of the potential risk from facilities.

One commenter requested that the modeling protocol for HAP should be consistent with the modeling protocols for criteria pollutants under the PSD protocols found at 40 CFR part 51, appendix W. The commenter expressed concern that the current use of minimum property distance may not be the point of maximum impact.

Response: We disagree with changing the minimum distance to property boundary. We recognize that the minimum distance to property boundary may overestimate the ambient concentration and exposure; however, we emphasize the health-protective nature of the look-up tables and do not believe that it is appropriate to change this metric towards one that would be uniformly less health-protective.

It is incorrect to assert that, when performing a look-up table analysis, the minimum distance to the property boundary may not be the point of maximum impact. For the look-up tables, we developed the allowable emission rate for each property boundary distance from the maximum modeled HAP concentrations beyond that property boundary. As a result, a look-up table analysis necessarily considers the point of maximum pollutant impact outside the source's property boundary. This is consistent with appendix W of 40 CFR part 51.

D. Site-Specific Risk Assessment

Comment: Several commenters disagreed with the level of guidance EPA provided for conducting a site-specific assessment. Three of these commenters added that there is a lack of basic methods or required parameters, such as the years of exposure to an individual which might lead to basing a risk assessment on a 1-year exposure instead of the traditional lifetime exposure. One commenter stated that while EPA has provided some guidance on performing site-specific assessments, EPA has a responsibility to develop constraints on the sources' discretion. The commenter contended that the lack of constraint included in the final rule does not provide specific, knowable, replicable, and enforceable legal standards necessary to govern and enforce the final rule. The commenter added that the loose guidance provided for in selecting a site-specific assessments can be interpreted as unlimited discretion for the affected source, and thus prevent any future efforts for administrative challenge.

Response: We believe that providing sources with the discretion to use any ''scientifically-accepted, peer-reviewed risk assessment methodology'' is appropriate. However, contrary to the assertions of some commenters, this discretion is not unlimited. In section 7(c) of appendix A to the final rule, EPA has established specific minimum criteria for site-specific compliance demonstrations. In order to demonstrate eligibility for the health-based compliance alternative, the site-specific risk assessment conducted by the facility must meet the following criteria: (1) Estimate long-term inhalation exposures through the estimation of annual or multi-year average ambient concentrations; (2) estimate the inhalation exposure for the individual most exposed to the facility's emissions; (3) use site-specific, quality-assured data wherever possible; (4) use health-protective default assumptions wherever site-specific data are not available; and (5) contain adequate documentation of the data and methods used.

Furthermore, EPA cited the Air Toxics Risk Assessment (ATRA) Reference Library to provide guidance to the sources and States on developing technically sound site-specific risk assessments. The ATRA Reference Library provides examples of how a risk assessment can be conducted. These examples include instruction in basic risk assessment methodology, in determining what parameters to include in a risk assessment, and in the constraints that should be placed on those parameters. The documents within the ATRA Reference Library have been peer-reviewed and were developed according to the principles, tools and methods outlined in the 1999 EPA Residual Risk Report to Congress. However, the guidance in the ATRA Reference Library may not be appropriate for all sources. For that reason sources may consider alternative analytical tools as long as these alternatives are scientifically defensible, peer-reviewed and transparent.

Finally, the discretion of each source is not unlimited because permitting agencies have the authority to review each site-specific eligibility demonstration to determine if it meets the requirements in section 7(c) of appendix A to the final rule and if the methodology, as applied in the demonstration of eligibility, is technically sound and appropriate. After reviewing a source's compliance demonstration, the permitting authority makes the final determination of whether site-specific assessments are completely and correctly submitted. These authorities may reject site-specific assessments if they do not meet the requirements of section 7 of appendix A or if they contain technical flaws with respect to the risk assessment methodology. Thus, it may be advisable for sources to seek prior approval when using a methodology that deviates from the approach in the ATRA Reference Library. However, we do not feel that it is necessary to require this prior approval.

E. Background Concentrations and Emissions From Other Sources

Comment: Multiple commenters disagreed with EPA's decision not to include background or co-located emissions when determining whether or not a facility qualifies for the health-based compliance alternative standards in the final rule. Several commenters stated that when evaluating whether or not a facility is eligible to comply with the health-based compliance alternatives, the background or co-located emissions should be included in the risk determination.

Several of the commenters that opposed consideration of emissions from background or co-located sources argued that the statutory language in CAA section 112(d) does not provide EPA with the legal authority to consider emissions from other source categories. Many of these commenters also provided counter-examples of sections of the CAA where the Congressional intent was focused on including background or co-located emissions. Several commenters added that background or co-located emissions do not fall into a source category or subcategory of major sources listed for regulation. Two commenters stated that there is no precedent for the consideration of background or co-located emissions during the promulgation of the benzene NESHAP or during the litigation of the vinyl chloride NESHAP.

Three commenters cited a 1990 Senate Report, and concluded that the consideration of background or co-located emission sources would be the kind of lengthy study Congress intended to avoid. Two commenters cited risk documents from the Presidential/Congressional Commission on Risk Assessment and Risk Management, and a paper written by the Residual Risk Coalition to support their position on excluding background and co-located emission sources when evaluating whether or not a facility qualifies for the health-based alternative standard in appendix A to the final rule.

One commenter argued that the public health is most protected when regulations are specific to a source category and provided examples of how the different provisions of the CAA account for different sources of HAP. The commenter added that the consideration of background emissions would over-regulate the affected source category and effectively require certain sources to compensate for other sources of HAP.

Two of the commenters that supported considering emissions from background and co-located sources contended that the major source status is based on facility-wide emissions and limiting the risk analysis to certain sources within the facility presents an unrealistic view of the facility's impact. One commenter added that EPA must meet its duty of providing for an ''ample margin of safety'' by evaluating the risk of background emissions now as opposed to during the residual risk evaluation. One commenter stated that risk assessment should be done in the context of all HAP sources at the facility and at nearby facilities. One of these commenters disagreed with the health-based compliance alternative for metals because it does not adjust for facility-wide emissions

Three commenters cited the 1996 National Air Toxics Assessment (NATA) for support of the concern of high exposures to air toxics throughout the country and stated a reduction in such exposures will require a general reduction across all sources. These commenters expressed concern that excluding background or co-located emissions ignore cumulative risk and do not protect the public health.

One commenter contended that the tiered risk approach used at this State level correctly considers background emissions, in contrast to the exclusion of these background emissions in the final NESHAP. The commenter added that by excluding these background sources, the final MACT rule identifies low-risk subcategories based on an unrealistic view of the facility impact. The commenter also concluded that the refined site-specific risk screening provides no real measure of health impact without including background or co-located emission sources.

Response: Based on the arguments made by several commenters and our review of the CAA, we believe it is permissible under CAA section 112(d) to limit our analysis to establishing emissions limitations for only those sources in the individual source categories subject to this action. Therefore, in developing emissions limitations under section 112(d), we believe emissions from sources outside of this source category need not be considered to determine eligibility for the health based compliance alternatives for ICI boilers and process heaters. Although we may combine several source categories into one NESHAP rulemaking as we did in this action, we do not construe the CAA to require that we regulate the emissions from all other source categories through an individual section 112(d) rule for particular source categories.

The focus of section 112(d) of the CAA is on establishing emission standards for individual source categories. Section 112(d)(1) indicates that the administrator is to ''promulgate regulations establishing emission standards for each category or subcategory of major sources and area source of hazardous air pollutants listed for regulation pursuant to subsection (c) of this section in accordance with the schedule provided in subsections (c) and (e) of this section.'' The health-based compliance alternatives are included among the emissions standards we have established for ICI boilers and process heaters under section 112(d). Section 112(d)(4) states that ''the Administrator may consider such threshold level, with an ample margin of safety, when establishing emission standards under this subsection.'' The subsection described in this provision of the statute is CAA subsection 112(d). Since the ''ample margin of safety'' provision is also contained within section 112(d), we do not interpret this part of the CAA to require that we consider emissions from other source categories in establishing a health-based alternative under section 112(d)(4) for one category of sources. Based on the overall focus of section 112(d) on sources in specific categories, we believe the ''ample margin of safety'' criteria should be applied to the emissions of threshold pollutants from the individual source category subject to each NESHAP rulemaking.

We agree with several commenters that the legislative history supports this view that Congress intended for EPA to focus only on the emissions from sources within a particular category when establishing health-based standards for a particular source category under CAA section 112(d)(4). The Senate Report stated that the following:

> The Administrator is authorized by section 112(d)(4) to use the no observable effects or NOEL (again with an ample margin of safety) as the emissions limitation in lieu of more stringent ''best technology'' requirements. Following this scenario, only those sources in the category which present a risk to public health (those emitting in amounts greater than the safety threshold) would be required to install controls, even though the general policy is ''maximum achievable technology'' everywhere.

This statement suggests an intent for EPA to address only whether ''sources in the category'' present a risk to public health when EPA is determining whether individual sources in the category should have to comply with a technology-based emissions limitation or may avoid installation of controls by demonstrating that the emissions from a source do not present risks greater than an established health threshold.

Thus, we believe it is permissible to conclude that the facility-wide impact is not the focus of the analysis in the development of a CAA section 112(d) rule. Under our interpretation, the appropriate analysis under the CAA is whether the emissions of sources in the applicable category (without consideration of emissions from sources in other categories) are below the health threshold. Under the eligibility demonstration methodology set forth in appendix A of subpart DDDDD of 40 CFR part 63, a source must demonstrate

eligibility based on the emissions from all units in the ICI boilers and process heaters source category. Because all emissions units in the category are covered, any background emissions or emissions from other sources at a particular location would have to be emissions from sources in other categories or emissions that occur naturally.

We do not read CAA section 112(d) to require us to use emissions from sources outside the category to establish health-based alternatives for sources in the ICI boilers category. Likewise, we do not believe eligibility for health-based alternative should be determined by using a sum of emissions from all source categories or by lowering the health threshold for emissions from one source category to account for emissions from other source categories. We believe we should concentrate on only the emissions from each source category to establish health-based emissions limitations for that category and in determining whether sources in that category are eligible to comply with a health-based emissions limitation or must meet a technology-based emissions limitation.

Although a particular facility may be identified as a major source of HAP for purposes of CAA section 112 on the basis of emissions from affected sources in multiple source categories, this does not require that we establish eligibility for a health-based emissions limitation in a particular source category based on emissions from co-located sources outside the category. Emissions units in other source categories located at the same major source site remain subject to the technology-based emissions limitations contained in other NESHAP rulemaking promulgated under section 112(d). The sources covered by these NESHAP rules are not eligible to comply with the health-based alternatives in the ICI boilers and process heaters NESHAP because an ICI boiler or process heater at the same site is eligible for the health-based alternative in the NESHAP for ICI boilers and process heaters.

Under either scenario, each source is subject to regulatory requirements (whether health or technology-based) that address the health risks posed by emissions from that facility. The health-based compliance alternatives in the 40 CFR part 63, subpart DDDDD, are only available for HCl and manganese, and only if emissions of these HAP meet the health-based criteria defined in appendix A to the final rule. Affected sources that can comply with the health-based alternatives in appendix A are still subject to other emissions standards under the NESHAP.

With respect to the concerns about cumulative risk, emission standards under CAA section 112(d) are only one aspect of a broader national air toxics control program. Under the residual risk program, we may consider, as appropriate, risks from other source categories and risks from the total emissions from a particular location. This approach was reiterated in the recently finalized Coke Oven Residual Risk rule where we said we will only consider emissions from the regulated source category when determining ''acceptable risk'' during the first step of the residual risk analysis. However, during the second step, where we determine the ample margin of safety considering costs and technical feasibility (70 FR 19997), we may consider co-located sources and background levels where appropriate.

Comment: Three commenters agreed with the Agency suggestion to revisit the consideration of background emission during future residual risk evaluations. However, one commenter disagreed with the suggestion to revisit facility-wide residual risk determinations in future residual risk rules and stated that EPA does not have the authority to mandate facility-wide residual risk determinations. The commenter provided an attachment of the Coke Oven Residual Risk rule to support their position. Several commenters stated an intention to address this issue in subsequent residual risk rulemakings if EPA proposes to revisit facility-wide emissions at this stage.

Four commenters expressed concern on considering co-located emissions only during the residual risk analysis. One commenter stated that deferring the risk screening acts is contrary to the intent of the CAA. Three commenters were not satisfied with the residual risk evaluations performed to date. Two commenters specifically cited that background concentrations for benzene or any other HAP were not incorporated into the Coke Oven Residual Risk report. One commenter added that EPA must meet its duty of providing for an ''ample margin of safety'' by evaluating the risk of background emissions now as opposed to during the residual risk evaluation. The commenter added that in deferring the consideration of these background emission sources until the residual risk evaluation, the agency is acting arbitrary, capricious, and otherwise not in accordance with law.

Response: To the extent necessary, we believe the appropriate stage for considering total facility risk from air toxics emissions is at the residual risk rulemaking stage under section 112(f) of the CAA. As noted above, we do not construe the requirement in CAA section 112(d)(4) to ''consider such threshold, with an ample margin of safety, when establishing emission standards'' under CAA subsection (d) to require assessment of the cumulative risk at a given location due to the emissions from all source categories at this stage of NESHAP rule development. However, as stated in our recent residual risk rule for coke ovens, we do not agree that CAA section 112(f) entirely precludes EPA from considering emissions other than those from the relevant source category during a residual risk rulemaking analysis for an individual source category. (70 FR 19992, 19998; April 15, 2005) Section 112(f) of the CAA directs EPA to consider whether promulgation of additional standards ''is required to provide an ample margin of safety to protect public health.''

Although the phrase ''ample margin of safety'' is used in both CAA sections 112(d)(4) and 112(f), the context surrounding the phrase is different in each section. The context of CAA subsection 112(d) focuses on each individual source category for which we are promulgating a NESHAP rulemaking under CAA subsection (d). Although we agree that the first stage of our section 112(f) analysis should focus on the risks from each individual source category, we believe we may consider cumulative risks to some extent in implementing the ''ample margin of safety'' requirement in the context of CAA subsection (f) and in evaluating ''other relevant factors'' under this subsection. (70 FR at 19998). As a result, we believe the appropriate stage for any consideration of cumulative facility risks is this second part of the residual risk analysis rather than in the development and implementation of a health-based alternative under section 112(d)(4) of the CAA.

We do not construe section 112(d)(4) of the CAA to accelerate the residual risk analysis under CAA section 112(f) when we invoke section 112(d)(4) to establish a health-based standard during the first stage or rulemaking under section 112(d). In this action, we are implementing section 112(d) and are not writing a regulation based on section 112(f). Section 112(d)(4) does not call for a residual risk analysis for all sources in the category. Rather, this provision allows EPA to consider the existence of health thresholds (with an adequate margin of safety) for particular pollutants at the first stage of the NESHAP promulgation process.

Comment: Two commenters felt it was unclear how the health-based compliance alternatives will affect CAA section 112(f) residual risk evaluations for HCl and manganese, and asked if these two threshold pollutants will be exempted from residual risk assessments.

Response: HCl and manganese will not be exempted in future CAA 112(f) analyses. Rather, exposure to these two pollutants will be assessed along with exposure to other HAP emitted from the source category.

F. Health-Based Compliance Alternative for Metals

Comment: Multiple commenters agreed with EPA's method for evaluating manganese and the basis of excluding manganese from the TSM emission limit for units that comply with the manganese health-based compliance alternative. These commenters also stated that the health-based compliance alternative adequately protects the public health. One commenter cited EPA re-analysis of the MACT floor based on seven instead of eight metals, and concluded that because manganese was only about 5 percent of the TSM, the MACT floor remained the same.

Several commenters disagreed with the appropriateness and lawfulness of the manganese health-based compliance alternative. Three commenters stated that EPA has not provided a justifiable explanation for the exclusion of manganese from the calculation of TSM. The commenters contended that although EPA found the MACT floor to be the same whether or not manganese was included in the floor analysis, this reasoning does not justify removing manganese from the TSM limit. One commenter stated the mechanism through which the manganese compliance alternative operates unlawfully allows plants with low manganese emissions to avoid controlling the emissions of other non-mercury metals. Further, the commenter suggested that the top-performing sources used to calculate the MACT floor may have low manganese emissions because existing controls at the source may reduce manganese emissions, such that the TSM emission limit would not be affected by the incorporation of manganese concentrations. The commenter emphasized that dirtier sources would also be allowed to exclude manganese from their TSM limit calculations and as a result be allowed to emit higher levels of manganese and the other seven metals included in the TSM standard.

Response: We believe the alternative TSM emissions limit for sources that qualify for the health-based alternative is technically-sound and supported by the record. The alternative emissions limitation set forth in 40 CFR 63.7507(b) subpart DDDDD, is a MACT (technology-based) standard for seven metals (excluding manganese). This alternative MACT emissions limit is applicable only to those sources who qualify for the health-based compliance alternative for TSM based on their emissions of manganese. The manganese emissions from these sources are subject to the health-based alternative standard, which is enforceable through the operating conditions in the title V permit of sources that successfully demonstrate eligibility for the health-based alternative. However, the remaining seven metals that are included in the TSM calculation must still be subject to a MACT (technology-based) emissions limit. As a result, we derived an alternative MACT emissions limit for these seven selected metals using the same MACT methodology that we used for other emissions limits in subpart DDDDD. Only sources that qualify for the health-based alternative for TSM are eligible to apply this alternative TSM MACT limit in 40 CFR 63.7507(b) because the manganese emissions are otherwise controlled to health-based levels through the operating conditions in the title V permit established pursuant to appendix A to the final rule.

The methodology for the MACT floor analysis conducted for establishing this alternative, technology-based TSM limit is described in the memorandum ''MACT Floor Analysis for the Industrial, Commercial, and Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants'' in the docket. When we investigated the possibility of establishing an alternative TSM emission limit for these seven metals, we performed the same MACT floor analysis that we conducted for the TSM emission limit for eight metals. That is, we reexamined the emission test data for solid fuel units that included emissions results for all of the eight total selected metals (arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium) with manganese removed from the summation. The technology-based TSM limit for these seven metals (excluding manganese) resulted in a MACT floor emission level for existing large solid fuel units of 0.001 pound per million British thermal units (lb/mmBtu). This is the same level as the eight-metal (including manganese) TSM MACT emission level proposed and promulgated for existing large solid fuel units. Our MACT floor analysis for new solid fuel units achieved the same result. Thus, rather than repeating the emissions limit already contained in table 1 to the final rule in 40 CFR 63.7507(b), we expressed the alternative, technology-based TSM limit for these seven metals for eligible sources as a requirement to meet the same emissions limitation without counting manganese.

The seven-metal and eight-metal technology-based TSM limit were the same because the manganese emissions from the unit serving as the basis for the limit only accounted for less than 5 percent of the total selected metals. When we conducted our MACT floor analysis for the seven metals standard, we determined that the unit we used as the basis for the setting the TSM limit for eight metals was the same as the unit selected under the analysis for seven metals.

We understand, but do not agree with commenters concerns that allowing sources to exclude manganese from their TSM limit calculation will result in higher emissions of the other seven metals. Based on the available data, we do not expect sources other than biomass-fired sources to qualify for the health-based alternative for manganese and TSM. The record does not indicate that sources using biomass fuels emit significant quantities of metals other than manganese. Thus, while in theory the exclusion of manganese from the TSM limitation could allow an eligible source to increase emissions of the other seven metals, the record does not indicate that eligible sources are capable of doing so.

The TSM limit in the final rule was included at proposal because the Agency was sensitive to the fact that some sources burn fuels (e.g, biomass) that contain very little metals but have sufficient particulate matter (PM) emissions to require control under the PM provision of the final rule. In these cases, we did not think that PM would be an appropriate surrogate for metallic HAP. Under the rules in subpart DDDDD of 40 CFR part 63, a source may choose to comply with the alternative TSM emission limit instead of the PM limit. The eight metals included in the TSM summation represent the most common and the largest emitted metallic HAP from boilers and process heaters. Based on the impacts analysis done for the final rule, the TSM emission limit would minimize the impacts on small entities (e.g., furniture industry, sugar cane industry) since

some of the potential small entities burn biomass.

Biomass (e.g., wood, bagasse, peanut hulls, etc.) generally does not contain measurable amounts of metals except for manganese. For example, fuel analyses of bagasse from sugar cane mills in Louisiana did not detect any of the metals except for manganese. Fuel analyses of bagasse from sugar cane mills in Florida only detected manganese, lead, and selenium, with lead and selenium totaling 0.00032 lb/mmBtu, and this is assuming that all the metals in the fuel is emitted which would not be the case due to some remaining in the bottom ash. Wood also contains little metals except for manganese. Fuel analyses of wood combusted as fuel at three furniture facilities detected only manganese. Fuel analysis at another furniture facility did detect cadmium, chromium, and nickel beside manganese, but the total of those three metals (0.00005 lb/mmBtu) was only 1.3 percent the level of manganese or 5 percent of the TSM limit. Other biomass materials, such as peanut hulls, used as fuel also have similar metals composition. Fuel analysis conducted by EPA on peanut hulls only detected the presence of manganese.

The metal makeup of biomass differs greatly from coal. Coal contains detectable levels of all eight metals. Fuel analyses from six coal-fired facilities indicate that even if a coal-fired facility could demonstrate eligibility with the TSM health-based compliance alternative and may exclude manganese emissions, it would still require high efficient PM control to achieve the TSM limit. Thus, when we promulgated the TSM health-based compliance alternative, we believed, and still believe that only biomass units will seek to demonstrate that they do not need to employ PM controls by showing they qualify to exclude manganese from the TSM compliance demonstration, since manganese is the principal metal in biomass while manganese only makes up a small fraction of the metals contained in coal.

Comment: One commenter stated that EPA cannot adopt risk-based exemptions for pollutants for which no health threshold has been established. The commenter contended, based on documents in EPA's Integrated Risk Information System (IRIS), that no health threshold has been established for manganese. On the contrary, two commenters specified that manganese has long been recognized as a threshold pollutant. Another commenter stated that unlike other metals in the MACT list, manganese is not a carcinogen, rather it is a Class D pollutant.

Response: We agree that health-based compliance alternatives adopted under section 112(d)(4) of the CAA can apply only to pollutants for which a threshold for health effects has been established. For the pollutants for which we have elected to establish health-based compliance alternatives (manganese and HCl), the scientific data support a threshold approach to evaluating the potential for adverse health effects.

For air toxics risk assessments, we identify pertinent toxicity or dose-response values using a default hierarchy of sources to assist us in identifying the most scientifically appropriate benchmarks. EPA's IRIS is the preferred source in this hierarchy. The values in the IRIS database reflect EPA consensus values and their development typically incorporates extensive peer review. When adequate toxicity information is not available in IRIS, we consult other sources in a default hierarchy that recognizes the desirability of peer review and consistency with EPA risk assessment guidelines to ensure that we have consistent and scientifically sound assessments. For substances lacking current IRIS assessments, U.S. Agency for Toxic Substances and Disease Registry (ATSDR) chronic minimal risk levels received next preference, followed by California Environmental Protection Agency (CalEPA) chronic reference exposure levels and unit risk estimates. Furthermore, when there is an IRIS assessment but that assessment substantially lags the current scientific knowledge, we are committed to consider alternative credible and readily available assessments.

Based on our analysis of manganese using this approach, we believe the data currently available show that a health threshold has been established for manganese and that we are therefore authorized under CAA section 112(d)(4) to establish a health-based alternative for this pollutant. Under our default hierarchy approach, we first consulted IRIS. IRIS may be found on Internet at *www.epa.gov/iris,* but we have added the relevant pages in IRIS to the docket for this rulemaking action. As listed in table 4 of the preamble to the rule (68 FR 1690; Jan. 13, 2003), IRIS contains a reference concentration for manganese. However, IRIS does not contain a unit risk estimate, which addresses cancer risk. EPA's assessment in IRIS indicates that there is inadequate evidence of carcinogenicity for manganese. In addition, a cancer assessment for manganese is not available from any of the other sources in our default hierarchy or from another scientifically-credible source. Based on this information, which we believe is the best available at the present time, our judgment is that it is only appropriate for EPA to evaluate manganese with regard to non-cancer effects. In the absence of specific scientific evidence to the contrary, it has been our policy to classify non-carcinogenic effects as threshold effects. RfC development is the default approach for threshold (or nonlinear) effects. Thus, in the absence of adequate evidence that manganese is a carcinogen and based on the presence of a reference concentration in IRIS for non-cancer effects of manganese, our best scientific judgment at this time is that manganese is a threshold pollutant. We also used this approach to reach a similar conclusion with respect to HCl. (See Comment-Response Document, pg. 233 (February 2004.)

Regarding the lowest observable adverse effect level issue, the methodology employed by EPA recognizes that while a no observable adverse effect level is preferable to a LOAEL for use as the point of departure to which uncertainty factors are applied to derive an RfC, a LOAEL may also be used. (U.S. Environmental Protection Agency. 1994. Methods for Derivation of Inhalation Reference Concentrations and Application of Inhalation Dosimetry. Office of Research and Development. EPA/600/8–90/066F.) IRIS incorporates factors to account for uncertainties in the scientific database. The use of a LOAEL to derive the RfC for manganese is one of these uncertainties and is appropriately addressed through the application of uncertainty factors as part of the IRIS process.

We disagree with the commenter that we did not consider acute effects. We performed a risk assessment evaluating the potential acute effects of boiler emissions, including manganese (see docket item #OAR–2002–0058–0608). We used acute inhalation reference values, taken from the table on EPA's air toxics Web site (*www.epa.gov/ttn/atw/toxsource/table2.pdf*), for all pollutants in this assessment. Although the commenter is correct that this table does not contain an acute exposure guidelines level (AEGL) value for manganese compounds, the table does contain an immediately dangerous to life and health (IDLH)/10 value of 50 mg/m3. This is the acute dose-response value that we used, as reflected in table 3 (converted to 50000 ug/m^3) of the screening assessment memorandum (OAR–2002–0058–0608). Thus, the commenter's assertion that the table on the Web site contains no acute dose-response value or that EPA does not know what that value might be is

incorrect. As described in the screening assessment memorandum, for HAP with more than one acute dose-response value, the most health-protective value was chosen. EPA has not prioritized these values. Since we only had one value for manganese, we used that value in our acute assessment. The results indicate that HAP emissions, including manganese, from the industrial boilers source category are unlikely to pose acute risks to human health.

G. Deadline for Submission of Health-Based Applicability Determinations

Comment: Numerous commenters did not deem it as necessary for the Agency to extend the deadline for the submission of eligibility or final compliance dates provided that certain timelines and components of the health-based compliance alternatives were maintained as a result of this reconsideration.

Several commenters requested that the Agency consider including an extension of at least 1 year to both the submission of eligibility and final compliance dates in the final rule. These commenters added that the uncertainties resulting from the reconsideration and ongoing litigation made the original deadlines impractical.

One commenter disagreed with extending the submission of eligibility demonstration or compliance dates of affected sources under any circumstances. The commenter contended that an extension will only further delay the installation of the pollution controls that are required by the CAA. The commenter added that it is unlawful to extend compliance dates of affected sources.

Response: We do not believe it is appropriate at this time to adjust the deadline for submitting eligibility demonstrations. Most commenters representing the regulated industry believed that they would not need an extension if EPA met certain conditions.

EPA has met the conditions outlined by these commenters. We have completed the reconsideration in a timely manner and have not made significant changes to the rule. As stated in the notice of reconsideration as proposed (70 FR 36913), we did not anticipate that significant revisions would be made as a result of the reconsideration, and we advised affected sources to ''proceed to prepare their eligibility demonstrations under the existing process promulgated in the final rule.'' Although we are making some clarifying amendments, we are not changing the final rule substantially. Thus, this action will not have the impact on the eligibility-demonstration process that concerned several other commenters. Therefore, we do not believe an extension is necessary in order for sources to complete their eligibility demonstrations by September 2006.

In addition, we do not have cause to extend the compliance date for existing sources. Section 112(i)(3)(A) of the CAA specifies that NESHAP for existing sources can have compliance dates of no more than 3 years. For the ICI boiler and process heater NESHAP, EPA provided the maximum 3 years for covered sources to comply with the new standards.

It is not unusual for promulgation of CAA standards to be followed by litigation or petitions for reconsideration. Section 307(b)(1) of the CAA specifically provides that the filing of a petition for reconsideration of a rule does not postpone the effectiveness of a rule. To date, EPA has not, during the pendency of a reconsideration request, extended the compliance deadlines for promulgated MACT standards to provide compliance periods in excess of the statutory 3-year maximum. In contrast, where the Agency has amended a MACT standard in a significant way, we have found it appropriate to set a new compliance date for the rule that takes into account new requirements not contained in the original rule.

In this action, we are making relatively minor clarifying amendments to the eligibility demonstration methodology for the health-based alternatives and have not reconsidered or changed any aspect of the technology-based MACT standards. EPA indicated in the reconsideration notice, as proposed, that we were unlikely to change the compliance deadline and that the petitions for reconsideration had not provided new information suggesting a need for significant revisions to the applicability demonstration methodology for the health-based alternatives. (70 FR 36910, 36913) Thus, affected sources were on notice that significant revisions to health-based alternatives were not anticipated, Furthermore, we indicated that we intended to complete this reconsideration action expeditiously to shorten any uncertainty that may have been created by our partial granting of these petitions for reconsideration. (7 FR 36910) The time required to complete the reconsideration process has not been extraordinarily lengthy.

We disagree with the request to provide a blanket compliance date extension for all sources in the category under section 112(i)(3)(B) of the CAA. The granting of an extension under this provision is up to the individual permitting authorities, and is restricted to specific situations where a source can demonstrate that such time is necessary for the installation of controls. We have not been provided with sufficient evidence to show that all sources in the category would be able to (or even have a need to) make such a showing.

H. Proposed Corrections to the Health-Based Compliance Alternatives

Comment: Three commenters disagreed with the proposed correction to extend the risk-based exemptions beyond the large solid-fuel subcategory. These commenters believed the expansion of the health-based compliance alternative to other subcategories to be a significant rule change that would require a separate formal rulemaking process with public notice and a comment period. These commenters expressed concern that this correction will allow more sources, specifically smaller sources with shorter stacks that tend to be located closer to populous regions, to become eligible for the risk-based exemptions. One commenter added that the analysis of TSM contained in the docket was specific to large solid fuel units and not all units for which the proposed correction seeks to offer applicability. One commenter cited sections within the final preamble language that indicated the alternatives applied to large solid fuel-fired sources.

Two commenters contended that there is no technical reason why the type of unit or fuel burned should restrict a facility from the right to demonstrate eligibility.

Response: We do not agree that a separate rulemaking proceeding is necessary to adopt the proposed correction to clarify that sources in all subcategories may demonstrate eligibility for the health-based compliance alternatives. Although this correction was coupled with EPA's response to a petition for reconsideration, EPA provided notice and opportunity to comment on the proposed revisions to the text of the final rule in accordance with the rulemaking requirements of section 307(d) of the CAA. Commenters have not cited legal authority in the CAA or elsewhere that requires EPA to address an allegedly ''significant'' change to a rule in a separate or independent rulemaking action.

We acknowledge that our original intent with respect to the scope of the health-based compliance alternatives is unclear and contradictory. EPA included language in 40 CFR 63.7507(a) that limits the applicability of the

health-based compliance alternative for HCl to sources in the large solid fuel-fired subcategory. We also made several statements in the preamble, highlighted by the commenters, which indicate an intent to limit one or both health-based alternatives to large solid fuel sources. These statements were made because the existing solid fuel-fired units at major sources are the main category of sources potentially affected by the health-based compliance alternatives. Furthermore, the number of new small solid fuel-fired units at major sources projected in the future (see Docket OAR–2002–0058) is relatively small. However, we also took certain actions in the final rule which show an intent to allow sources in all subcategories to demonstrate eligibility for the health-based compliance alternatives. For example, we did not include language in 40 CFR 63.7507(b) that limits the health-based alternative for TSM to sources in the large solid fuel subcategory. Likewise, we did not include any language in section 2 of appendix A to the final rule limiting the health-based alternative for HCl to just sources in the large solid-fuel subcategory. In that provision, we said that ''each new, reconstructed, or existing source may demonstrate that they are eligible for the health-based compliance alternatives.'' Thus, the bottom line is that various portions of the final rule and preamble are inconsistent on the intended scope of eligibility for the health-based compliance alternatives.

As a result of these inconsistencies, we proposed a correction that would make these elements of the final rule consistent. Although we indicated in the proposal that this correction was intended to reflect our original intent, we agree that this terminology was imprecise. Given the conflicting statements and regulatory text in the final rule cited above, we concede that the Agency's original intent was not clear one way or the other. To remedy this confusion, we are resolving the inconsistency by eliminating regulatory language that could be read to limit one or both of the health-based alternatives to only sources in the large solid fuel category. Thus, we are taking the action we proposed, which is to remove the words ''for large solid fuel boilers located at a single facility'' from 40 CFR 63.7507(a) and the words ''Specified for the Large Solid Fuel Subcategory'' from the title of appendix A to the final rule.

Because large solid fuel-fired units are not the only units that have applicable manganese and HCl MACT limits, we believe it is technically correct, and appropriate, to allow all affected sources with manganese and HCl limits the opportunity to demonstrate eligibility for the health-based compliance alternatives. Where EPA has determined that no adverse health effects are expected below a certain threshold level of exposure, there is no reasoned basis for precluding smaller industrial boilers and process heaters from using the health-based compliance alternative so long as their emissions do not result in human exposure above the designated threshold value. To the extent we are expanding the availability of the health-based compliance alternative to all sources, this will not subject the public to adverse health effects.

We do not believe health risks are increased by allowing smaller sources to qualify for the health-based compliance alternatives, even if the commenters are correct that these sources tend to have shorter stacks and are closer to populous areas. The amendments we are making in the final rule do not automatically make all small sources eligible for the health-based compliance alternatives. Such sources must still demonstrate eligibility under the procedures and criteria in appendix A to the final rule, which consider stack heights and distance to populated areas in determining eligibility. If these characteristics indicate that a particular source has emissions that pose risks above the threshold levels, the source will not be eligible for the health-based compliance alternative. In addition, emissions rates are also part of the analysis under appendix A. Because small sources have lower emissions rates, all other things being equal, small sources present less risk than large sources.

We do not believe this correction to the rule requires an extensive re-analysis of the cost or emissions reduction impacts of the health-based compliance alternatives. We have sufficient information to conclude that this correction will not result in a meaningful change to the cost or emissions impacts of the final rule.

In the final rule, the cost and economic analyses developed as part of the final MACT rule were based on the estimated costs for all affected sources to install, maintain, and operate controls and to comply with MACT requirements. Costs were not based on the health-based compliance alternatives since the cost of compliance with controls is significantly higher than the cost to comply with the health-based compliance alternatives. The costs associated with voluntarily conducting risk analyses were not analyzed and, therefore, not re-analyzed to account for this correction to the applicability of the health-based alternatives to all affected units.

Our supplemental analysis of the impact on control costs and emissions reductions resulting from adoption of the health-based alternatives cited by commenter showed that the estimated costs of the final rule would be lower if the health-based provisions were adopted. This ''rough assessment'' of the number of sources that would qualify for the health-based alternatives focused on large sources because these sources were the sources most likely to seek to demonstrate eligibility to comply with the health-based alternatives.

Based on the available information on sources in the category, we do not expect this correction to enable a significant number of additional sources to qualify for the health-based alternatives. Thus, this correction to the final rule will not result in a dramatic difference in our rough control cost and emissions reduction estimates. Since we evaluated the costs of the final rule without the health-based compliance alternatives, we have no reason to believe this amendment will increase compliance costs above these high-end estimates. The analysis we conducted in this reconsideration proceeding is sufficient to enable us to conclude that compliance costs will not be significantly different if a few additional sources are able to demonstrate eligibility as a result of this correction. For similar reasons, we do not have a basis to believe this change dramatically alters the emissions reductions that will be achieved under the final rule.

We adopted the health-based alternatives in part to reduce the compliance costs of the NESHAP while continuing to maintain the health protection called for in the Clean Air Act. The potential for this correction to reduce compliance costs further does not undermine this reason for adopting health-based compliance alternatives. We did not rely on these cost and emission reduction estimates as a basis for establishing technology-based MACT emissions limitations or the eligibility criteria for the health-based compliance alternatives. We conducted the cost and emission reduction estimates in order to present a summary of the environmental and economic impacts of final rule. The estimates included in our supplemental analysis of the impact on control costs and emissions reductions were presented in order to provide a comparative summary of impacts of the final rule based on a rough estimate of facilities that might opt to comply with the health-based compliance alternatives. Additionally, these cost estimates are necessary in order

complete several Statutory and Executive Order Reviews including: the Paperwork Reduction Act, the Regulatory Flexibility Act, and the Unfunded Mandates Reform Act of 1995.

I. Review of Eligibility Demonstrations and Relationship With Title V

Comment: Several commenters pointed out that the health-based compliance alternative is dependent on the approval from a permitting authority via issuance of a title V permit that includes enforceable alternative limits. These commenters stated that the proposed process for reviewing and incorporating the health-based compliance alternatives into the permits is unworkable because many parameters that affect air dispersion modeling and risks are not required to be incorporated into the title V permit.

One commenter requested EPA to clarify in sections 9 and 10 of appendix A to the final rule that a facility's compliance with the health-based compliance alternatives is dependent on the approval from a permitting authority via issuance of a title V permit that includes the alternative limits. The commenter added, if the eligibility determination is not approved, the facility must comply with the final NESHAP rule requirements.

One commenter opposed a requirement to obtain EPA or State agency approval of the site-specific risk assessments as currently stated in the hazardous waste combustion rule (HWC) rule. The commenter believed that requiring approval would likely create delays in the eligibility process and result in very short compliance timelines if a reviewing authority rejected a site-specific assessment or did not complete the review in a timely manner. The commenter added there is no technical justification for requiring approval in the final HWC MACT rule and recommended not doing so in the final boiler and process heater rule.

Response: We agree that the preferred approach is to not require affirmative approval by the permitting authority of each risk assessment before a source is eligible to comply with the health-based alternative. Thus, under the procedures in appendix A of subpart DDDDD of 40 CFR part 63, as amended in this action, a source becomes eligible to comply with the health-based alternatives at the time it submits an eligibility demonstration meeting the requirements of section 8 of appendix A to the final rule.

However, for a source to remain eligible to comply with the health-based alternatives the eligibility demonstration must be complete and the application for a permit modification must ultimately be approved by the permitting authority. Thus, as part of this process, permitting agencies do have the authority to review eligibility demonstrations to verify that they meet the requirements of appendix A to the final rule and are technically sound. For example, a permitting authority may notify a source that its eligibility demonstration is deficient if the demonstration is incomplete or if a look-up table analysis is performed in a situation when site-specific conditions exist that make the use of the look-up tables inappropriate. Based upon the technical findings of the review, permitting agencies have the authority to inform a source that it is no longer eligible for the health-based alternative if the eligibility demonstration is deficient. EPA will also review some demonstrations as part of an audit program.

This review authority derives from the title V permit program through which the health-based compliance alternatives are implemented, and it was inherent in the final rule when promulgated on September 14, 2004. Subpart DDDDD of 40 CFR part 63 contains applicable requirements that are incorporated in title V permits. The title V permit program provides a process for identifying and consolidating all of the applicable requirements for each source. Through this process, the permit authority reviews each application to verify the applicable requirements for each source. Thus, when a source submits a demonstration of eligibility for the health-based alternatives in subpart DDDDD, the title V permitting authority has the ability to review this submission to determine whether the applicable requirements for that source are the health-based or the technology-based requirements in subpart DDDDD.

However, to clarify this issue, we are adding explicit language in sections 10 and 11 of appendix A to the final rule to make clear that permitting agencies may review each facility's eligibility demonstration. If the permitting authority identifies deficiencies with the eligibility determination or the permit modification is eventually disapproved based on problems with the eligibility demonstration, then the facility is no longer eligible for the health-based alternative and must comply with the MACT emission standards by the compliance dates specified in 40 CFR 63.7495.

For new sources, we are establishing a slightly different procedure because new sources will be relying upon the health-based alternative at start-up. In these cases, the source will have a grace period of 30 to 90 days to correct any deficiencies before ceasing to be eligible for the health-base alternative. This grace period is not needed for existing sources because their eligibility demonstrations must be submitted 12 months prior to the compliance date. We believe this provides sufficient time for permitting authorities to notify sources of any deficiencies and for a source to correct any deficiencies.

Comment: Several commenters requested that EPA specify additional process and non-process related parameters under section 11 of appendix A to the final rule to clarify the enforceable requirements for the facility. One commenter specifically requested that ''emission rate'' be added to the list of parameters. Three commenters requested that non-process parameters that can affect air dispersion modeling be included, such as stack height, exit gas temperature, distance to the plant property line, and changes in RfC or land-use.

Response: We recognize that a large number of parameters can affect continuous compliance with the health-based compliance alternatives. These parameters include, but are not limited to, HAP emission rates, fuel type, type of control device, stack parameters, reference values, and location of local residences. Some of these parameters are appropriate for incorporation into title V permits (e.g., HAP emission rates or a surrogate for emission rate such as production volume) while others are not (e.g., reference values). However, changes in any of these parameters can trigger the need for a re-assessment. Therefore, we are adding language to appendix A to the final rule expanding the list of parameters that should be considered for inclusion as enforceable permit limits. In section 11 of appendix A, we are also expanding the list of parameters that, if changes occur, could also necessitate a re-assessment.

Comment: Three commenters requested that EPA clarify the deadline for compliance for sources whose health-based eligibility determination is found to be deficient. These commenters also suggested an allowance period of 12 months after the facility receives notice of a deficiency in their health-based eligibility determination.

Two commenters stated that the health-based compliance alternative will delay compliance with MACT for sources that attempt to unsuccessfully demonstrate eligibility with the health-based compliance alternatives.

Response: We disagree that there will be a delay in compliance caused by the health-based compliance alternatives. Sources that submit eligibility demonstrations in an attempt to comply with the health-based compliance alternative but do so unsuccessfully must still be in compliance within 3 years after the rule was promulgated. We do not believe it is appropriate to automatically extend the compliance date in these situations. As noted above, for existing sources, there is a 1-year window in which permitting authorities and sources can work out any deficiencies in an eligibility demonstration. The health-based compliance alternative is an optional compliance approach. Some risk is involved in electing to comply with the MACT standard via the health-based compliance alternatives. This assumed risk could include a shorter amount of time to install the controls that are required to meet technology standards in the event that a source does not submit a health-based eligibility demonstration that meets the requirements of Appendix A to the final rule. We do not necessarily endorse the use of CAA section 112(i)(3)(B) to grant compliance date extensions in these circumstances. However, we will leave the decision of whether to grant such a compliance date extension on a site-specific basis to permitting authorities.

J. Miscellaneous

Comment: Two commenters addressed the vagueness of the criteria for determining the location at which the affected source must demonstrate that the HI for HCl and chlorine (Cl_2) and the HQ for manganese is less than or equal to 1.0. One commenter requested to incorporate potential land use changes where people could reasonably be expected to live in the future into the demonstrations of eligibility. The commenter stated that the rule language ''where people live'' does not account for the individual most exposed in the future for a location that was not residentially zoned at the time of the risk assessment. One commenter suggested replacing ''where people live'' with the ''point of maximum impact beyond the facility's property boundary.''

Response: We agree that there is a need clarify the wording of the phrase ''where people live'' in section 5 of Appendix A. To address some of the commenters concerns, we are changing the phrase to ''where people live or congregate (e.g. including schools or daycares).'' We believe that this a an appropriate approach given that, as described in EPA's Air Toxics Risk Assessment Reference Library, sources can deviate from the default assumption that an exposed individual remains at the location of highest exposure for 24 hours per day, 365 days per year.

We do not believe any additional changes are needed in section 5 of Appendix A to account for future land use changes. The final rule requires that a source complying with a health-based compliance alternative must resubmit their demonstration of eligibility if process or non-process parameters change in a way that could increase public health risk. Thus, if people have moved into an area, or if schools or daycare centers are constructed, the demonstration of eligibility must be resubmitted with a new risk assessment that incorporates updated parameters to account for the public health risk of these new populations. This resubmission of the eligibility demonstration is part of the existing requirements of Appendix A to the final rule for maintaining continuous compliance. If a source is no longer in compliance with the health-based alternative due to changes in land use, that source must comply with the technology standards in the MACT.

V. Impacts of the Final Rule

The revisions incorporated as a result of the final rule amendments do not change any of the impacts presented in section V of the preamble to the final rule which was published at 69 FR 55218 (September 13, 2004).

VI. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

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

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

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

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

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

Pursuant to the terms of Executive Order 12866, it has been determined that today's action is a ''significant regulatory action'' because it raises novel legal or policy issues. As such, the action was submitted to OMB for review under Executive Order 12866. Revisions made in response to OMB suggestions or recommendations are documented in the public record (see **ADDRESSES** section of this preamble).

B. Paperwork Reduction Act

Today's final rule amendments impose no new information collection requirements on the industry. Because there is no additional burden on the industry as a result of the final rule amendments, the information collection request has not been revised. The Office of Management and Budget (OMB) has previously approved the information collection requirements contained in the existing regulations under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq., and has assigned OMB control number 2060–0551 (EPA No. 2028.02). A copy of the OMB approved Information Collection Request (ICR) may be obtained from Susan Auby, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW., Washington, DC 20460 or by calling (202) 566–1672.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 40 CFR chapter 15.

C. Regulatory Flexibility Act

EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with today's final rule amendments.

For purposes of assessing the impacts of today's final rule amendments on small entities, a small entity is defined as: (1) A small business having no more than 500 to 750 employees, depending on the business' NAICS code; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for profit enterprise which is independently owned and operated and that is not dominant in its field.

We conclude that the final rule amendments will not have a significant economic impact on a substantial number of small entities. This rule will not impose additional regulatory requirements on small entities. After evaluating public comment on the notice of reconsideration, we are retaining the health-based compliance alternatives in the final rule in substantially the same form. However, we are making a limited number of amendments to 40 CFR 63.7507 and appendix A to the final rule to improve and clarify the process for demonstrating eligibility to comply with the health-based compliance alternatives contained in the rule.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures by State, local, and tribal governments, in the aggregate, or by the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost effective, or least-burdensome alternative that achieves the objectives of the 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's regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

EPA has determined that today's final rule amendments do not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. Although the final rule have annualized costs estimated to range from $690 to $860 million (depending on the number of facilities eventually demonstrating eligibility for the health-based compliance alternatives), today's final rule amendments do not add new requirements that would increase this cost. Thus, today's final rule amendments are not subject to the requirements of sections 202 and 205 of the UMRA. In addition, EPA has determined that the final rule amendments do not significantly or uniquely affect small governments because there are no new requirements that apply to such governments or impose obligations upon them. Therefore, today's final rule amendments are not subject to section 203 of the UMRA.

E. Executive Order 13132: Federalism

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

The final rule amendments do not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. None of the affected facilities are owned or operated by State governments, and the requirements discussed in today's action will not supersede State regulations that are more stringent. Thus, Executive Order 13132 does not apply to today's final rule amendments.

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

Executive Order 13175 (65 FR 67249, November 9, 2000) requires EPA to develop an accountable process to ensure ''meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.'' ''Policies that have tribal implications'' are defined in the Executive Order to include regulations that have ''substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes.'' The final rule amendments do not have tribal implications, as specified in Executive Order 13175.

The final rule amendments do not significantly or uniquely affect the communities of Indian tribal governments. We do not know of any ICI boilers or process heaters owned or operated by Indian tribal governments. However, if there are any, the effect of these rules on communities of tribal governments would not be unique or disproportionate to the effect on other communities. EPA specifically solicited additional comment on the final rule from tribal officials, but received none. Thus, Executive Order 13175 does not apply to today's final rule amendment.

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

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be ''economically significant'' as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that we have reason to believe may have a disproportionate effect on children.

If the regulatory action meets both criteria, we must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective

and reasonably feasible alternatives we considered.

We interpret Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. Today's final rule amendments are not subject to the Executive Order because eligibility demonstrations submitted in support of the health-based alternative compliance options will be based on noncancer human health reference values (e.g., reference concentrations) that are designed to be protective of sensitive subpopulations, including children.

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

Today's final rule amendments are not a ''significant energy actions'' as defined in Executive Order 13211 (66 FR 28355, May 22, 2001) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Further, we have concluded that today's final rule amendments are not likely to have any adverse energy effects.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Pub. L. 104–113; 15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impracticable. Voluntary consensus standards are technical standards (e.g., material specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA requires EPA to provide Congress, through the OMB, with explanations when EPA decides not to use available and applicable voluntary consensus standards.

During the development of the final rule, EPA searched for voluntary consensus standards that might be applicable. The search identified three voluntary consensus standards that were considered practical alternatives to the specified EPA test methods. An assessment of these and other voluntary consensus standards is presented in the preamble to the final rule (69 FR 55251, September 13, 2004). Today's final rule amendments do not involve the use of any additional technical standards beyond those cited in the final rule. Therefore, EPA did not consider the use of any additional voluntary consensus standards.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this action 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 February 27, 2006.

List of Subjects in 40 CFR Part 63

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

Dated: December 15, 2005.

Stephen L. Johnson,

Administrator.

■ For the reasons stated in the preamble, title 40, chapter 1 of the code of Federal Regulations is amended as follows:

PART 63—[AMENDED]

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

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

Subpart DDDDD—[Amended]

■ 2. Section 63.7507 is revised to read as follows:

§ 63.7507 What are the health-based compliance alternatives for the hydrogen chloride (HCl) and total selected metals (TSM) standards?

(a) As an alternative to the requirement to demonstrate compliance with the HCl emission limit in table 1 to this subpart, you may demonstrate eligibility for the health-based compliance alternative for HCl emissions under the procedures prescribed in appendix A to this subpart.

(b) As an alternative to the requirement to demonstrate compliance with the TSM emission limit in table 1 to this subpart based on the sum of emissions for the eight selected metals, you may demonstrate eligibility for the health-based alternative for manganese emissions under the procedures prescribed in appendix A to this subpart and comply with the TSM emission standards in table 1 based on the sum of emissions for seven selected metals (by excluding manganese emissions from the summation of TSM emissions).

* * * * *

■ 3. Appendix A to subpart DDDDD is amended as follows:

■ a. By revising the heading.

■ b. In Section 4 by revising paragraph (g).

■ c. In Section 5 by revising paragraphs (c)(2) and (d)(2).

■ d. In Section 6 by revising the introductory text and paragraphs (a) and (b).

■ e. In Section 8 by revising paragraphs (b)(1) and adding paragraph (d).

■ f. In Section 9 by revising paragraphs (b), (c)(1) and (c)(2).

■ g. Revising Section 10.

■ h. Revising Section 11.

Appendix A to Subpart DDDDD—Methodology and Criteria for Demonstrating Eligibility for the Health-Based Compliance Alternatives

* * * * *

4. How do I determine HAP emissions from my affected source?

* * * * *

(g) You must determine the maximum hourly emission rate for each appropriate emission point according to Equation 1 of this appendix. An appropriate emission point is any emission point emitting HCl, Cl_2, or Manganese from a subpart DDDDD emission unit.

$$E_{i,s} = \sum_{j=1}^{t} \left(R_{i,j} \times I_j \right) \qquad \text{(Eq. 1)}$$

Where:

$E_{i,s}$ = maximum hourly emission rate for HAP i at each emission point s associated with a subpart DDDDD emission unit j, lbs/hr

i = applicable HAP, where i = (HCl, Cl_2, or Manganese) s = individual emission point

j = each subpart DDDDD emission unit associated with an emission point, s

t = total number of subpart DDDDD emission units associated with an emission point s

$R_{i,j}$ = emission rate (the 3-run average as determined according to table 1 of this appendix or the pollutant concentration in the fuel samples analyzed according to § 63.7521) for HAP i at subpart DDDDD emission unit j associated with emission point s, lb per million Btu.

I_j = Maximum rated heat input capacity of each subpart DDDDD unit j emitting HAP i associated with emission point s, million Btu per hour.

5. What are the criteria for determining if my facility is eligible for the health-based compliance alternatives?

* * * * *

(c) * * *

(2) Your site-specific compliance demonstration indicates that none of your HI values for HCl and CL_2 are greater than 1.0 at locations where people live or congregate (e.g., schools, daycare centers, etc.);

(d) * * *

(2) Your site-specific compliance demonstration indicates that none of your HQ values for manganese are greater than 1.0 at locations where people live or congregate (e.g., schools, daycare centers, etc.).

6. How do I conduct a look-up table analysis?

You may use look-up tables to demonstrate that your facility is eligible for either the compliance alternative for HCl emissions limit or the compliance alternative for the TSM emissions limit, unless your permitting authority determines that the look-up table analysis in this section is not applicable to your facility on technical grounds due to site-specific variations that are not accounted for in the look-up table analysis (e.g. presence of complex terrain, rain caps, or building downwash effects).

(a) *HCl compliance alternative.* (1) Using the emission rates for HCl and Cl_2 determined according to section 4 of this appendix, calculate, using equation 2 of this appendix, the toxicity-weighted emission rate (expressed in HCl-equivalents) for each emission point that emits HCl or Cl_2 from any subpart DDDDD sources. Then, calculate the weighted average stack height using equation 3 of this appendix.

$$TW_s = E_{HCl,s} + E_{Cl_2,s}\left(\frac{RV_{HCl}}{RV_{Cl_2}}\right) \qquad \text{(Eq. 2)}$$

Where:

TW_s = the toxicity-weighted emission rate (in HCl-equivalent) for each emission point s, lb/hr.

s = individual emission points

$E_{HCl,s}$ = the maximum hourly emission rate for HCl at emission point s, lb/hr

$E_{Cl2,s}$ = the maximum hourly emission rate for Cl_2 at emission point s, lb/hr

RV_{Cl2} = the reference value for Cl_2

RV_{HCl} = the reference value for HCl (reference values for HCl and Cl_2 can be found at *http://www.epa.gov/ttn/atw/toxsource/summary.html*).

$$H_{HCl} = \frac{\sum_{s=1}^{n}\left(TW_s \times H_s\right)}{TW_T} \qquad \text{(Eq. 3)}$$

Where:

H_{HCl} = weighted average stack height for determining the maximum allowable HCl-equivalent emission rate (in Table 2 to this appendix), m.

s = individual emission points

n = total number of emission points

TW_s = toxicity-weighted HCl-equivalent emission rate from each emission point (from equation 2), lb/hr.

H_s = height of each individual stack, m

TW_T = total toxicity-weighted HCl-equivalent emission rate from the source (summed for all emission points), lb/hr.

(2) Calculate the total toxicity-weighted emission rate for your affected source by summing the toxicity-weighted emission rate for each appropriate subpart DDDDD emission point.

(3) Using the weighted average stack height and the minimum distance between any appropriate subpart DDDDD emission point at the source and the property boundary, identify the appropriate maximum allowable toxicity weighted emission rate for your affected source, expressed in HCl-equivalents, from table 2 of this appendix. Appropriate emission points are those that emit HCl or Cl_2, or both, from subpart DDDDD units. If one or both of these values does not match the exact values in the look-up tables, then use the next lowest table value. (**Note:** If your weighted average stack height is less than 5 meters (m), you must use the 5 meter row.) Your affected source is eligible to comply with the health-based alternative for HCl emissions if the value calculated in paragraph (a)(2) of this section, determined using the methods specified in this appendix, does not exceed the appropriate value in table 2 of this appendix.

(b) *TSM Compliance Alternative.* Using the emission rates for manganese determined according to section 4 of this appendix, calculate the total manganese emission rate for your affected source by summing the maximum hourly manganese emission rates for all your subpart DDDDD units. Identify the appropriate allowable emission rate in table 3 of this appendix for your affected source using the weighted average stack height value and the minimum distance between any appropriate subpart DDDDD emission point at the facility and the property boundary. Appropriate emission points are those that emit manganese from subpart DDDDD units. If one or both of these values does not match the exact values in the look-up tables, then use the next lowest table value. (**Note:** If your weighted average stack height is less than 5 meters, you must use the 5 meter row.) Your affected source is eligible to comply with the health-based alternative for manganese emissions and may exclude manganese when demonstrating compliance with the TSM emission limit if the total manganese emission rate, determined using the methods specified in this appendix, does not exceed the appropriate value specified in table 3 of this appendix.

$$H_{Mn} = \frac{\sum_{s=1}^{n}\left(E_{Mn,s} \times H_s\right)}{E_{Mn,T}} \qquad \text{(Eq. 4)}$$

Where:

H_{Mn} = weighted average stack height for determining the maximum allowable emission rate for manganese (in table 3 to this appendix), m.

s = individual emission points

n = total number of emission points

$E_{Mn,s}$= maximum hourly manganese emissions from emission point s, lbs/hr.

H_s = height of each individual stack s

$E_{Mn,T}$ = total maximum hourly manganese emissions from affected source (sum emission rates from all emission points), lb/hr

* * * * *

8. What Must My Health-Based Eligibility Demonstration Contain?

* * * * *

(b) * * *

(1) Calculations used to determine the weighted average stack height of the subpart DDDDD emission points that emit manganese, HCl, or Cl_2.

* * * * *

(d) To be eligible for either health-based compliance alternative, the parameters that defined your affected source as eligible for the health-based compliance alternatives must be submitted to your permitting authority for incorporation into your title V permit, as federally enforceable limits, at the same time you submit your health-based eligibility demonstration. These parameters include, but are not limited to, fuel type, fuel mix (annual average), emission rate, type of control devices, process parameters (e.g., maximum heat input), and non-process parameters (e.g., stack height).

9. When Do I Have to Complete and Submit My Health-Based Eligibility Demonstration?

* * * * *

(b) If you have a new or reconstructed affected source that starts up before the effective date of subpart DDDDD, or an affected source that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP before the effective date of subpart DDDDD, then you may submit an eligibility demonstration at any time after September 13, 2004 but you must comply with the emissions limits in table 1 to this subpart and all other requirements of subpart DDDDD until your eligibility demonstration is submitted to your permitting authority in accordance with the requirements of section 10 of this appendix.

(c) * * *

(1) You must complete and submit a preliminary eligibility demonstration based on the information (e.g., equipment types, estimated emission rates, process and non-process parameters, reference values, etc.) that will be used to apply for your title V permit. This preliminary eligibility demonstration must be submitted with your application for approval of construction or reconstruction. You must base your preliminary eligibility demonstration on the maximum emissions allowed under your title V permit. If the preliminary eligibility demonstration indicates that your affected source facility is eligible for either compliance alternative, then you may start up your new affected source and your new affected source will be considered in compliance with the alternative standard and subject to the compliance requirements in this appendix.

(2) You must conduct the emission tests or analyses specified in section 4 of this appendix upon initial startup and use the results of these emissions tests to complete and submit your eligibility demonstration within 180 days following your initial startup date.

10. When Do I Become Eligible for the Health-Based Compliance Alternatives?

(a) For existing sources, new sources, or reconstructed sources that start up before the effective date of subpart DDDDD, or an affected source that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP before the effective date of subpart DDDDD, you are eligible to comply with a health-based compliance alternative upon submission of a complete demonstration meeting all the requirements of paragraph 8 for the applicable alternative. However, your eligibility demonstration may be reviewed by the permitting authority or by EPA to verify that the demonstration meets the requirements of appendix A to this subpart and is technically sound (i.e. use of the look-up tables is appropriate or the site-specific assessment is technically valid). If you are notified by the permitting authority or by EPA of any deficiencies in your submission, then you are not eligible for the health-based compliance alternative until the permitting authority or EPA verifies that the deficiencies are corrected.

(b) For new or reconstructed sources that start up after the effective date of subpart DDDDD, you are eligible to comply with a the health-based compliance alternatives upon submission of a complete preliminary eligibility determination in accordance with paragraph (c)(1) of section 9 that demonstrates your affected source is eligible for the applicable alternative. You may then start up your source and conduct the necessary testing in accordance with paragraph (c)(2) of section 9. The eligibility demonstration submitted in accordance with paragraph (c)(2) of section 9 may be reviewed by the permitting authority or by EPA to verify that the demonstration meets the requirements of appendix A to this subpart and is technically sound (i.e. use of the look-up tables is appropriate or the site-specific assessment is technically valid). If you are notified in writing by the permitting authority of any deficiencies in your submission, then you have 30 days to correct the deficiencies unless the permitting authority agrees to extend this time to a period not to exceed 90 days. If the deficiencies are not corrected within the applicable time period, you will not be eligible for the health-based compliance alternative until the permitting authority verifies that the deficiencies are corrected.

(c) If the title V permit conditions requested in accordance with paragraph (d) of section 8 are disapproved by the permitting authority, then your affected source must comply with the applicable emission limits, operating limits, and work practice standards in subpart DDDDD by the compliance dates specified in § 63.7495. Until the requested conditions (or alternative conditions meeting the requirements of paragraph (d) of section 8) are incorporated into the permit, compliance with the proposed conditions shall be considered compliance with the health-based alternative.

11. How Do I Ensure That My Facility Remains Eligible for the Health-Based Compliance Alternatives?

(a) You must update your eligibility demonstration and resubmit it each time that any of the parameters that defined your affected source as eligible for the health-based compliance alternatives changes in a way that could result in increased HAP emissions or increased risk from exposure to emissions. These parameters include, but are not limited to, fuel type, fuel mix (annual average), type of control devices, HAP emission rate, stack height, process parameters (e.g., heat input capacity), relevant reference values, and locations where people live).

(b) If you are updating your eligibility demonstration to account for an action in paragraph (a) of this section that is under your control (e.g. change in heat input capacity of your boiler), you must submit your revised eligibility demonstration to the permitting authority prior to making the change and revise your permit to incorporate the change. If your affected source is no longer eligible for the health-based compliance alternatives, then you must comply with the applicable emission limits, operating limits, and compliance requirements in subpart DDDDD prior to making the process change and revising your permit. If you are updating your eligibility demonstration to account for an action in paragraph (a) of this section that is outside of your control (e.g. change in a reference value), and that change causes your source to no longer be able to meet the criteria for the health-based compliance alternatives, your source must comply with the applicable emission limits, operating limits, and compliance requirements in subpart DDDDD within 3 years.

(c) Your revised eligibility demonstration may be reviewed by the permitting authority or EPA to verify that the demonstration meets the requirements of appendix A to this subpart and is technically sound (i.e. use of the look-up tables is appropriate or the site-specific assessment is technically valid). If you are notified by the permitting authority or EPA of any deficiencies in your submission, you will not remain eligible for the health-based compliance alternatives until the permitting authority or EPA verifies that the deficiencies are corrected.

* * * * *

[FR Doc. 05–24299 Filed 12–27–05; 8:45 am]

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July 23, 2002

Part II

Environmental Protection Agency

40 CFR Part 63

National Emission Standards for Hazardous Air Pollutants: Surface Coating of Large Appliances; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[AD–FRL–7244–1]

National Emission Standards for Hazardous Air Pollutants: Surface Coating of Large Appliances

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national emission standards for hazardous air pollutants (NESHAP) for existing and new facilities that apply surface coatings to large appliances. These final standards implement section 112(d) of the Clean Air Act (CAA) which requires the Administrator to regulate emissions of hazardous air pollutants (HAP) listed in section 112(b) of the CAA. The intent of the standards is to protect the public by requiring new and existing major sources to control emissions to the level attainable by implementing the maximum achievable control technology (MACT).

Sources typically emit the following HAP: glycol ethers, methylene diphenyl diisocyanate, methyl ethyl ketone, toluene, and xylene. These compounds account for over 80 percent of the nationwide HAP emissions from this source category. These pollutants can cause reversible or irreversible toxic effects to people following exposure.

EFFECTIVE DATE: This rule is effective July 23, 2002. The incorporation by reference of certain publications listed in today's final rule is approved by the Director of the Federal Register as of July 23, 2002.

ADDRESSES: *Docket.* Docket No. A–97–41 contains supporting information used in developing the standards for the Large Appliances Coating source category. The docket is located at the U.S. EPA, 401 M Street, SW, Washington, DC 20460 in Room M–1500, Waterside Mall (ground floor), telephone (202) 260–7548. The docket may be inspected from 8:30 a.m. to 5:30 p.m., Monday through Friday, excluding legal holidays.

Background Information Document. A background information document (BID) for the promulgated NESHAP may be obtained from the docket; the U.S. EPA Library (C267–01), Research Triangle Park, North Carolina 27711, telephone (919) 541–2777; or from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161, telephone (703) 487–4650. Refer to ''Large Appliances Surface Coating Operations—Background Information for Promulgated Standards'' (EPA–453/R–02–004). The promulgation BID contains a summary of changes made to the standards since proposal, public comments made on the proposed standards, and the EPA responses to the comments.

FOR FURTHER INFORMATION CONTACT: For information concerning applicability and rule determinations, contact your State or local air pollution control agency representative or the appropriate EPA Regional Office representative. For information concerning the analyses performed in developing these standards, contact Mr. H. Lynn Dail, Coatings and Consumer Products Group, Emission Standards Division (C539–03), U.S. EPA, Research Triangle Park, NC 27711, telephone (919) 541–2363; e-mail address: *dail.lynn@epa.gov.*

SUPPLEMENTARY INFORMATION:

Docket. The docket is an organized and complete file of all the information considered by EPA in the development of rulemaking. The docket is a dynamic file because material is added throughout the rulemaking process. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. The contents of the docket, including the BID for the proposed and promulgated standards and the EPA responses to significant comments will serve as the record in case of judicial review. (See section 307(d)(7)(A) of the CAA.) The regulatory text and other materials related to today's final rule are available for review in the docket, or copies may be mailed on request from the Air and Radiation Docket and Information Center by calling (202) 260–7548. A reasonable fee may be charged for copying docket materials. *Worldwide Web (WWW).* In addition to being available in the docket, an electronic copy of today's final rule will also be available on the WWW through the Technology Transfer Network (TTN). Following signature by the EPA Administrator, a copy of the final rule will be posted on the TTN's policy and guidance page for newly proposed or promulgated rules at *http://www.epa.gov/ttn/oarpg.* The TTN provides information and technology exchange in various areas of air pollution control. If more information regarding the TTN is needed, call the TTN HELP line at (919) 541–5384.

Regulated Entities. If your facility applies surface coatings to large appliance parts or products, you may be a regulated entity. Categories and entities potentially regulated by the final standards are shown in the following table. This table is slightly different from the table contained in the proposal preamble at 65 FR 81135. The changes made to the table between proposal and promulgation are the result of public comments. These changes clarify the types of facilities that will be affected by the promulgated standards.

CATEGORIES AND ENTITIES POTENTIALLY REGULATED BY THE FINAL STANDARDS

Category	NAICS Code [a]	Regulated Entities [b]
Industry	335221	Household cooking equipment.
	335222	Household refrigerators and freezers.
	335224	Household laundry equipment.
	335228	Other major household appliances.
	333312	Commercial laundry, drycleaning, and pressing equipment.
	333415	Air-conditioners (except motor vehicle), comfort furnaces, and industrial refrigeration units and freezers (except heat transfer coils and large commercial and industrial chillers).
	[c]333319	Other commercial/service industry machinery, e.g., commercial dishwashers, ovens, and ranges, etc.
Federal Government		Not affected.
State/Local/Tribal Government		Not affected.

[a] North American Industry Classification System
[b] Regulated entities means major source facilities that apply surface coatings to these parts or products.
[c] Excluding special industry machinery, industrial and commercial machinery and equipment, and electrical machinery equipment and supplies not elsewhere classified.

As in the proposal, major sources classified under other NAICS codes will be subject to the standards if they perform large appliance surface coating operations and meet the other applicability criteria. Conversely, some facilities listed under these codes may not be affected because some of the codes in the table cover products that are not defined as large appliances for the purposes of the rule.

This table is not intended to be exhaustive, but rather provides a guide for entities likely to be regulated by this action. To determine whether your facility is subject to the rule, you should carefully examine the applicability criteria in § 63.4081 of the rule. If you have questions regarding how this action applies to a particular entity, consult the appropriate EPA Regional Office representative.

Judicial Review. The NESHAP for large appliance surface coating operations was proposed on December 22, 2000 (65 FR 81134). Under section 307(b)(1) of the CAA, judicial review of NESHAP is available only by the filing of a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by September 23, 2002. Only those objections to the rule which were raised with reasonable specificity during the period for public comment may be raised during judicial review. Under section 307(b)(2) of the CAA, the requirements that are the subject of today's final rule may not be challenged later in civil or criminal proceedings brought by EPA to enforce the requirements.

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

I. Background
A. What is the source of authority for development of NESHAP?
B. What criteria do we use in the development of NESHAP?
II. What changes and clarifications have we made to the proposed standards?
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I. Background

A. What Is the Source of Authority for Development of NESHAP?

Section 112 of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. The category of major sources covered by the final NESHAP was listed on July 16, 1992 (57 FR 31576) under the Surface Coating Processes industry group. Major sources of HAP are those that have the potential to emit considering controls, in the aggregate, 10 tons per year (tpy) or more of any HAP or 25 tpy or more of any combination of HAP.

B. What Criteria Do We Use in the Development of NESHAP?

Section 112 of the CAA requires that we establish NESHAP for the control of HAP from both existing and new major sources. The CAA requires the NESHAP to reflect the maximum degree of reduction in emissions of HAP that is achievable. This level of control is commonly referred to as the MACT.

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

In developing MACT, we also consider control options that are more stringent than the floor. We may establish standards more stringent than the floor based on consideration of the cost of achieving the emission reductions, any health and environmental impacts, and energy requirements.

II. What Changes and Clarifications Have We Made to the Proposed Standards?

In response to public comments received on the proposed standards, we made several changes in developing the final rule. While some of the changes were designed to make our intentions clearer, other changes had a direct effect on the degree of coverage of the standards. The substantive comments and our responses and rule changes are summarized in the following sections. A more detailed summary can be found in the BID for the final rule which is available from several sources (see **ADDRESSES**).

A. Scope of Source Category

In the proposal, we defined the regulated community for the standards to be facilities that apply surface coatings to large appliances or components of large appliances. In the proposal BID and the table of regulated entities in the proposal preamble (65 FR 81135, December 22, 2000), we stated that the facilities are generally included under the following NAICS codes (and their SIC code equivalents): 335221 (3631) household cooking appliances, 335222 (3632) household refrigerator and home freezer, 335224 (3633) householdlaundry equipment manufacturing, 335228 (3639) other major household appliances, 333415 (3585) air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment, and 333319 (3589) service appliance. We cautioned that some facilities and products with these codes do not fit under the large appliance category, and similarly, there may be facilities under other codes that do in fact coat large appliances. Thus, these industrial codes were given as a guide but were not intended to be used as the only basis for determining applicability of the rule.

The codes listed above are associated with household cooking equipment, refrigerators/freezers, laundry equipment, and floor vacuums and polishers, and various types of

commercial and industrial heating, ventilation, and refrigeration equipment. Table 2–1 in the proposal BID listed examples of large appliances that are produced by facilities in these categories.

Several commenters stated that the scope of the category as proposed was overly broad and confusing. They felt that we had included several products not normally considered to be large appliances, and that these products should be regulated under the miscellaneous metal parts and products NESHAP currently under development. As an alternative, if EPA decided not to change the mix of products defined to be large appliances, one commenter suggested that we change the name of the source category to better match the product mix being represented.

In addition, commenters asked for clarification on the applicability of the rule to certain coatings such as porcelain enamel, powder coatings, and asphalt interior soundproofing. The final rule clarifies that the aforementioned coatings are considered coatings for the purposes of the rule and will be subject to subpart NNNN. We also clarified that phosphating (a form of pretreatment) and metal plating are excluded as coatings in subpart NNNN.

Our proposed definition of the large appliances source category was formed using the six SIC/NAICS codes as a foundation, and then including the products under those codes that we believed should be included as large appliances. Some commenters expressed confusion when comparing the preamble table to BID Table 2–1. We have clarified the scope of the source category by including definitions for *large appliance product* and *large appliance part* in the final rule. The definitions list the parts and products intended to be regulated under the final rule, and they supercede the listing in Table 2–1 of the proposal BID. We also modified the proposal preamble table and are including it in the BID for the final rule. We have added Commercial Laundry Equipment and have deleted Floor Waxing/Polishing and Motor Vehicle Air-Conditioning, in keeping with our intent at proposal. In addition, we have also deleted heat transfer coils and large commercial and industrial chillers from the table and from coverage by the large appliances NESHAP.

A few commenters stated that the heat transfer coils used to cool fluids in refrigeration and air-conditioning systems typically have unique coating formulation requirements, and suitable coatings are not available in a low-HAP formulation. The need for special coatings arises from the complex geometry of heat transfer coils, as well as exposure requirements in food processing and other special environments. The coating information we collected and used to determine the MACT floor did not contain coatings used specifically for heat transfer coils. The commenters asked that this large appliance component be removed from the large appliances category and regulated under the miscellaneous metal parts and products NESHAP.

We have examined the submitted data and arguments and have concluded that the data analyzed since proposal offer sufficient justification to revise the scope of the source category. Therefore, we have excluded heat transfer coils from coverage under the large appliances NESHAP.

A trade organization and one manufacturer of large commercial and industrial chillers (equipment that produces chilled water for use in a number of industrial processes including heating, ventilating, and air conditioning (HVAC) applications) commented that large chillers are very different from other products included as large appliances. They said that large HVAC products are produced in much lower volumes than white goods and are often custom designed. Furthermore, they are often subjected to outdoor environments requiring that they meet strict performance criteria, and they have a longer expected life. Commercial and industrial chillers are much larger than most other large appliances and are painted after assembly. Therefore, they cannot be put through a baking oven to cure the coatings, which restricts the coatings available for use.

We requested additional supporting data on large chiller equipment coating operations and the available coatings. We also visited one of the few facilities that manufactures that equipment. Our evaluation of the chiller coating operations led us to determine that large commercial and industrial chillers should be excluded from the Large Appliances category for the reasons described by the commenter.

B. Definitions

We have added definitions for *large appliance product* and *large appliance part* to the final rule. These definitions include ''white goods'' appliances, as well as certain HVAC equipment used in commercial and industrial applications. However, specifically excluded from the definition of *large appliance product* are heat transfer coils, large commercial and industrial chillers, and motor vehicle air-conditioning units.

We added several other new definitions in response to comments and to increase the clarity of the rule. Newly defined terms include *adhesive, facility maintenance, heat transfer coil, large commercial and industrial chillers*, and *month*. Clarifying changes were also made to the proposed definitions for *coating operation*, *manufacturer's formulation data*, and *surface preparation*.

C. Overlap With Other NESHAP Categories

Several commenters requested that the final rule provide compliance flexibility for facilities that coat a variety of items in addition to large appliances or large appliance components. Such facilities may be affected by several coating NESHAP, such as the standards for large appliances, miscellaneous metal parts and products, and plastic parts and products. They sought a regulatory approach that would allow facilities to opt specific coating operations or product lines, that are collateral to large appliance coating operations, out of the rule and into either the miscellaneous metal parts and products rule under development or the plastic parts and products rule that is also under development. Commenters also believed that plants coating types of items with a wider use beyond large appliances (such as motors, handles, hinges, etc.) should have the choice of those operations being covered by either the miscellaneous metal or plastic parts rule, even if the specific items are designed to be used on large appliances.

We understand that many facilities may find it beneficial to consolidate their regulatory coverage for a number of different types of coating operations (such as large appliances, miscellaneous metal parts, and plastic parts) into a single NESHAP. Consolidation may reduce the amount of records, reports, or compliance calculations that the facility would have to maintain. To address the issue of multiple regulatory coverage, we are including a new provision in the final rule that allows the consolidation sought by the commenters. Under this approach, as an alternative to complying separately with multiple coating NESHAP, a facility may choose to be subject to the requirements of only one applicable NESHAP, provided it is the most stringent of the applicable subparts. The test for stringency is a demonstration that the facilitywide HAP emissions from all surface coating operations will be less than or equal to the emissions achieved by complying separately with

all applicable subparts of 40 CFR part 63.

There are many facilities that apply surface coatings to a variety of items that may be used on large appliances, but which also have application to other types of products. We agree that such multi-purpose items are not exclusively large appliance parts and may be considered more appropriately miscellaneous metal parts or plastic parts. Therefore, we are excluding these items from coverage under the final rule. However, if a large appliance source prefers to have all its coating operations subject to only one coating NESHAP to consolidate recordkeeping and reporting requirements, the source would have the option described above of complying with only the most stringent applicable NESHAP.

D. Other Changes and Clarifications

A number of commenters found the proposed compliance options confusing and some suggested variations on the way these options should be applied.

One of the commenters believed that the calculations, monthly compliance determinations, and recordkeeping required under the compliant material option should not apply to coating operations that use only powder coatings that contain no HAP. The commenter suggested relevant portions of the proposed requirements that he believed should not be applicable to these powder coating operations.

We have reviewed the proposed calculations, compliance determinations, and recordkeeping requirements for the compliant material option and believe the commenter identified a need to clarify the rule language. The proposed language would have required an affected source choosing the compliant material option and using only powder coatings and non-HAP cleaning materials to determine the mass fraction of organic HAP, the volume fraction of solids, and the density for each coating, and then to determine the ratio of organic HAP to coating solids. Records and certain reports would have had to include such calculations. We did not intend to require this unnecessary calculation for non-HAP coatings at proposal. Clearly, if a coating contains no organic HAP, it is not useful to record and report such calculations since the result is obviously zero kilogram (kg) organic HAP per liter of coating solids. Therefore, we have added a provision in § 63.4141(a) and (d) of the final rule specifying that if the mass fraction of organic HAP in a coating is zero, as determined according to § 63.4141(a) (through test results or manufacturer's formulation data), then the source is not required to determine the volume fraction of coating solids and density or to calculate the organic HAP content. This new provision applies to all types of coatings that contain no organic HAP, not just powder coatings. For such a coating, § 63.4141(d) of the final rule specifies that the organic HAP content equals zero and no calculation is required. The following notification, reporting, and recordkeeping sections of the rule were also revised to fully incorporate this provision: §§ 63.4110(b)(8) and (b)(8)(i), 63.4120(d)(2), and 63.4130(c), (c)(1), (f), and (g). We believe that these changes are responsive to the commenter's concerns, and that they retain only the requirements that are essential for compliance and enforcement purposes.

Some commenters asked whether different compliance options could be combined for the same coating operation in order for sources to gain more flexibility in the way coatings and other materials are used in an operation. We proposed three compliance options: Option 1 when using compliant materials, Option 2 when determining emission rate without add-on controls, and Option 3 when using emission controls. The three proposed compliance options address different situations and were intended to be applied on a one-at-a-time basis (see § 63.4091 introductory language). Both Options 1 and 2 cannot logically be used on one coating operation at the same time. If all coatings meet the limit and all thinners and cleaners are HAP-free, then Option 1 could be used and, thus, there would be no need to combine data elements for multiple coatings, thinners, and cleaning materials to derive an emission rate (required for Option 2). If the coatings, thinners, and cleaning materials do not meet the Option 1 criteria, or if the source owner or operator chooses not to use Option 1, then Option 2 must be used (or Option 3 if an add-on control device is in use). In no case may coatings, thinners, and cleaning materials accounted for under one option be included in the accounting under another option. Because the compliance options are designed to accommodate different situations and, due to the lack of compelling information or justification for the commenter's suggested rule change, the final compliance option provisions are the same as proposed.

Additionally, one commenter believed that a clarification was needed for proposed § 63.4081(a)(3), which excluded certain categories of surface coating from coverage by the rule, such as facility maintenance operations. The commenter wanted the rule to make specific mention of the paint booths that are used for maintaining manufacturing equipment. We agree with the commenter that the rule should not apply to paint booths or to other surface coating equipment used exclusively to coat something other than large appliances. If, however, the paint booth or equipment is sometimes used for large appliance surface coating, it would be subject to the standards during those times and would need to be considered part of the affected source. It also is subject to the standards if it is used for cleaning of equipment used in coating operations, e.g., application equipment, hangers, and racks (see § 63.4081(c)(6) and the definition of coating operation in § 63.4181). To clarify our intent, we have included the following definition of facility maintenance in the final rule: *Facility maintenance* means the routine repair or refurbishing (including surface coating) of the tools, equipment, machinery, and structures that comprise the infrastructure of a facility or that are necessary for the facility to function in its intended capacity. It does not mean cleaning of equipment that is part of a large appliances coating operation.

One commenter suggested that EPA establish a low-use exemption threshold for military installations where military members could apply coatings at on-base hobby shops and housing areas to repair personally owned appliances. Generally, in hobby shops, the prevailing coating application would involve hand-held, non-refillable aerosol containers. However, individuals using hobby shop facilities may also apply the coatings by methods other than hand-held aerosol cans. In the proposal, we excluded hand-held aerosol container coatings from the rule but did not exclude other coating application methods, specifically those related to hobby shops. However, in considering this comment, we concluded that coating application by individuals who repair, refurbish, or recoat large appliances or other types of products at military hobby shops or base housing areas does not compare to the coating operations conducted at facilities that apply coatings as a step in the production of large appliances. Therefore, these coating activities are not subject to the standards. We believe that expanding the exclusion in § 63.4081(d)(4) to include hobby shops is a more appropriate way to address this issue than creating a low-use exemption that would necessitate coating usage recordkeeping at the hobby shop. Therefore, § 63.4081(d)(4) of the final rule excludes research or

laboratory facilities; janitorial, building, and facility maintenance operations; hobby shops operated for non-commercial purposes; and the use of hand-held, non-refillable aerosol containers.

In addition to the changes described above, we noted several areas of the proposed rule that warrant revision even though commenters did not object to them. The changes are necessary so that the provisions properly reflect our intent and are consistent with other surface coating NESHAP under development. As proposed, § 63.4100(a)(2) indicated that affected sources using the emission rate with add-on controls options would not have to comply with the standards during periods of startup, shutdown, and malfunction. This provision is often found in NESHAP in which compliance with the standards is based solely on the results of a short-term initial performance test and short-term averaging of continuous monitoring results thereafter. After proposal of the large applicances NESHAP, we realized that this provision is not appropriate for the surface coating NESHAP when these short-term test and monitoring results are only one component of a compliance determination that determines emissions over a long period of time, which in this case is a month. For the large appliances NESHAP, the source owner or operator will use the performance test and continuous monitoring results in combination with data on coatings and other materials used over a month's period of time. These components will be combined to calculate a monthly organic HAP emission rate. Since there may be many startups and shutdowns of a coating operation over the course of a month as part of normal operation, it is not appropriate to exempt such periods from compliance with the standards. The rule does require in § 63.4100(d) that you develop and operate according to a startup, shutdown, and malfunction plan, and § 63.6163(h) provides the following: ''Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the startup, shutdown, and malfunction plan. The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations according to the provisions in § 63.6(e).'' We believe that this provision along with a month-long compliance period that will accommodate potential short-term higher emission rates that might occur due to startup, shutdown, or malfunction are adequate and that the proposed exemption is not necessary or appropriate. Therefore, it is not included in the final standards.

Another change we made to the rule is intended to simplify the compliance provisions for the emission rate with add-on controls option. We removed § 63.4162, which was proposed to provide explicit instructions for determining compliance with the emission rate with add-on controls option when the coating operation is operated under several different operating conditions. We found after proposal, however, that this section as proposed added unnecessary complexity to the standards, and that the compliance provisions are adequate without it. Therefore, we removed it from the final standards.

To provide consistency with other surface coating NESHAP, we added provisions in § 63.4167(b)(3) and (4) to allow sources an alternative to the proposed operating limits for catalytic oxidizers that require monitoring of inlet and outlet temperature before and after the catalyst bed and the temperature difference across the bed. This alternative allows you to monitor only the temperature before the catalyst bed if you develop and follow an onsite inspection and maintenance plan for the catalytic oxidizer. For some sources, this would be a preferable alternative. Another addition we made to provide consistency is a description of continuous monitoring requirements for concentrators in § 63.4167(e) and (f) and in Table 1 to the subpart. As proposed, a source using a concentrator would have had to seek and obtain approval from the permitting authority for the continuous monitoring it wanted to use to comply with the operating limits since we did not include such monitoring provisions in the proposed standards. Because we have included these provisions in the final standards, a source can comply with them and, therefore, avoid having to apply for and obtain specific approval unless it wishes to monitor something different than what is specified in the new provisions. The concentrator monitoring requirements are the same as those in other surface coating NESHAP under development.

In addition to the revisions described above, we have made clarifying editorial changes throughout the rule to ensure it accurately expresses our intent and to promote consistency with other surface coating NESHAP currently under development. These changes do not affect the stringency of the requirements since they are only clarifications of the proposed provisions.

III. What Are the Final Standards?

A. What Is the Source Category?

The large appliances source category includes facilities that apply coatings to large appliance parts or products. The rule applies to facilities that are a major source, are located at a major source, or are part of a major source of HAP emissions. Large appliances include ''white goods'' such as ovens, refrigerators, freezers, dishwashers, laundry equipment, trash compactors, water heaters, comfort furnaces, and electric heat pumps. Large appliances also include most HVAC equipment intended for any application. However, not included in the source category are motor vehicle air-conditioning units, heat transfer coils, and large commercial and industrial chillers. Other coating operations not included in the source category are: the coating of large appliance parts that have a wider use beyond large appliances (such as handles or fasteners), repair or maintenance painting of large appliance parts or products used by a facility, the surface coating of heat transfer coils or large commercial and industrial chillers, research or laboratory facilities and facility maintenance operations, and hobby shops operated for non-commercial purposes.

B. What Is the Affected Source?

The affected source includes all of the activities that involve coatings, thinners, and cleaning materials used in large appliance coating operations. These activities include: (1) Surface preparation of the large appliance parts or products; (2) preparation of coatings for application; (3) applying the coatings; (4) flash-off, drying, or curing of the coatings; (5) cleaning of coating equipment; (6) storage of coatings, thinners, and cleaning materials; (7) conveying of these materials; and (8) handling and conveying of waste materials generated by the coating operations.

C. What Are the Emission Limits?

The emission limits are different for existing and new sources and have not changed since proposal. For an existing source, you must limit organic HAP emissions to no more than 0.13 kg/liter (1.1 pound (lb)/gallon (gal)) of coating solids used during each compliance

(monthly) period. For a new or reconstructed source, you must limit emissions to no more than 0.022 kg/liter (0.18 lb/gal) of coating solids. These limits apply to the total of all coatings, thinners, and cleaning materials used in coating operations at the affected source.

There are three compliance options available for meeting the emission limits. The compliant material option requires that each coating used in the operation meet the limit, and each thinner and cleaning material must contain no organic HAP. Under the emission rate without add-on controls option, you may average all of the coatings, thinners, and cleaning materials together and demonstrate that the overall emission rate is in compliance with the applicable limit. The emission rate with add-on controls option applies to coating operations for which add-on controls are used to meet the limit. Under this option, you must meet certain operating limits for the capture systems and control devices and follow a work practice plan for your material storage, mixing, conveying, and spills.

D. What Are the Testing and Initial and Continuous Compliance Requirements?

Existing sources will have to be in compliance no later than July 25, 2005. New and reconstructed sources will have to be in compliance by this same date or upon startup, whichever is later. The initial compliance period begins on the compliance date and ends on the last day of the first full month following this date, except that for new or reconstructed sources required to conduct performance tests the initial compliance period ends on the last day of the first full month following the test. Note that ''month'' means a calendar month or a similar pre-specified period in order to accommodate facility accounting periods. The performance test may be conducted up to 180 days after the compliance date.

As discussed earlier, the owner or operator must select one of three compliance options for each coating operation, but may change the approach used for any operation at any time. For the compliant material and emission rate without add-on controls option, you will determine the mass of organic HAP in coatings, thinners, and cleaning materials and the volume fraction of coating solids either from manufacturer's formulation data or from test results using the methods in the final rule. Alternative test methods may be used with EPA's approval, and the test method results will prevail over manufacturer's formulation data for compliance purposes. If you use the emission rate with add-on controls option, you need to determine the mass of organic HAP and volume fraction of coating solids as in the other two options and also the capture and control efficiencies of the add-on controls by means of a performance test. As part of this test, you must establish operating limits that can be used on a continuous basis to demonstrate compliance with the emission limit. The final rule specifies the parameters to monitor for the types of emission control systems commonly used in the industry. If the monitoring results indicate no deviations from the operating limits, you would assume the control system is continuing to provide the same control efficiency as demonstrated in the test. If the combination of this efficiency and the total mass of organic HAP in materials used in controlled coating operations continues to be within the applicable emission limit, then continuous compliance is shown for those operations.

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

If you are subject to the standards, you must comply with the applicable requirements in the NESHAP General Provisions, subpart A of 40 CFR part 63. The General Provisions notification requirements include: initial notifications, notification of performance test if you are complying using a capture system and control device, Notification of Compliance Status, and additional notifications for affected sources with continuous monitoring systems. The General Provisions also require certain records and periodic reports. Records must be kept for at least 5 years with 2 years of that time being at the facility, and they may be kept in electronic form as long as they are readily available for review.

IV. What Are the Environmental, Energy, Cost, and Economic Impacts?

A. What Are the Air Impacts?

We estimate that nationwide organic HAP emissions will be reduced by approximately 1.080 megagrams/year (Mg/yr) (1,191 tpy) from existing sources. This represents a 45 percent reduction from the emissions baseline of 2,394 Mg/yr (2,639 tpy).

For new sources, we are assuming that most will use state-of-the-art coatings (predominantly powder coatings) even in the absence of the standards. These coatings will produce emission levels at or below the requirements of the final standards. Therefore, we are not attributing any emissions reductions from new sources to the final standards.

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

As at proposal, we have found that there are no significant expected non-air health, environmental, or energy impacts associated with the final standards. We reached this conclusion by considering the likely control approaches that will be used by existing and new sources. The use of low-HAP coating technologies will not produce any significant impacts on health, energy requirements, or the environment.

C. What Are the Cost and Economic Impacts?

The costs for facilities to comply with the final standards result from the switch to reformulated (lower-HAP) coatings, thinners, and cleaning materials. There will also be annual costs for meeting the monitoring, recordkeeping, and reporting (MRR) requirements of the rule.

For existing sources, the total nationwide annual cost in the 5th year of the standards is estimated to be $1.63 million. This includes approximately $0.48 million of direct costs associated with materials usage and $1.15 million for recordkeeping and reporting.

For new sources, only the costs of MRR apply. We estimate the annual cost in the 5th year for all new sources to be $341,000.

Our economic impact analysis showed the economic impacts of the promulgated standards to generally be minimal, with projected price increases and production decreases of less than 0.01 percent. Social costs are estimated at approximately $1.62 million in the 5th year for existing sources, with the burden being shared fairly equally between consumers and producers. No firms or facilities are expected to become at risk of closure due to the final standards. For more information, consult the ''Economic Impact Analysis of the Proposed NESHAP: Surface Coating of Large Appliances'' (Docket No. A–97–41).

V. What Are the Administrative Requirements?

A. Executive Order 12866, Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), EPA must determine whether the regulatory action is ''significant'' and therefore subject to the Office of Management and Budget (OMB) review and the requirements of

the Executive Order. The Executive Order defines ''significant regulatory action'' as one that is likely to result in a rule that may:

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

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

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

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

Pursuant to the terms of Executive Order 12866, it has been determined that this rule is not a ''significant regulatory action'' because none of the listed criteria apply to this action. Consequently, this action was not submitted to OMB for review under Executive Order 12866.

B. Executive Order 13045, Protection of Children From Environmental Health Risks and Safety Risks

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be ''economically significant'' as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, EPA must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned rule is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

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

C. 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. Pursuant to the terms of Executive Order 13132, it has been determined that this rule does not have ''federalism implications'' because it does not meet the necessary criteria. Thus, Executive Order 13132 does not apply to this rule.

D. 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 own or operate large appliance surface coating facilities. Thus, Executive Order 13175 does not apply to this rule.

E. 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.

F. 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 by State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that this final rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. The maximum total annual cost of this rule for any year has been estimated to be slightly less than $2 million. Thus, today's final rule is not subject to the requirements of sections 202 and 205 of the UMRA. In addition, EPA has determined that these standards contain no regulatory requirements that might significantly or uniquely affect small governments because they contain no requirements that apply to such

governments or impose obligations upon them. Therefore, today's final rule is not subject to the requirements of section 203 of the UMRA.

G. Regulatory Flexibility Act (RFA), as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601, et seq.

The 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.

For the purposes of assessing the impacts of today's final rule on small entities, small entity is defined as: (1) A small business ranging from 100–1,000 employees or less than $3.5 million in annual sales; (2) a small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000; 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.

In accordance with the RFA and SBREFA, EPA conducted an assessment of these standards on small businesses within the large appliance coating industry. Based on Small Business Administration size definitions and reported sales and employment data, EPA's survey identified 221 facilities that apply surface coatings to large appliances. These facilities, which include major and area sources, are owned by 84 companies. Of these companies, 34 are small businesses. Although small businesses represent about 40 percent of the companies within the source category, they are expected to incur only 10 percent of the total industry compliance costs. Under the final standards, the average annual compliance cost share of sales for small businesses is only 0.20 percent, with 26 of the 34 small businesses not expected to incur any additional costs because they are area sources or are permitted as synthetic minor HAP emission sources. After reviewing the range of costs to be borne by small businesses, EPA has determined the costs are typically small and that this action will not have a significant impact on a substantial number of small entities.

Although this final rule will not have a significant economic impact on a substantial number of small entities, EPA has nonetheless worked aggressively to minimize the impact of these standards on small entities, consistent with our obligations under the CAA. We solicited input from small entities during the data-gathering phase of the proposed rulemaking. We are including compliance options that give small entities flexibility in choosing the most cost-effective and least burdensome alternative for their operation. For example, a facility could purchase and use low-HAP coatings (i.e., pollution prevention) that meet the final standards instead of using add-on capture and control systems. This method of compliance can be demonstrated with minimum burden by using purchase and usage records. No testing of materials will typically be required as the facility owner will be allowed to show that their coatings meet the emission limits by providing formulation data supplied by the manufacturer.

H. Paperwork Reduction Act

The information collection requirements for these final standards will be submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501, *et seq.* An Information Collection Request (ICR) document has been prepared by EPA (ICR No. 1954.01) and a copy may be obtained from Susan Auby by mail at U.S. EPA, Office of Environmental Information, Collection Strategies Division (2822T), 1200 Pennsylvania Avenue, NW, Washington, DC 20460, by e-mail at auby.susan@epa.gov, or by calling (202) 566–1672. A copy may also be downloaded off the internet at *http://www.epa.gov/icr.* The information requirements are not effective until OMB approves them.

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

The final standards require maintaining records of all coatings, thinners, and cleaning materials data and calculations used to determine compliance. This information includes the volume used during each monthly compliance period, mass fraction organic HAP, density, and, for coatings only, volume fraction of coating solids.

If an add-on control device is used, records must be kept of the capture efficiency of the capture system, destruction or removal efficiency of the add-on control device, and the monitored operating parameters. In addition, records must be kept of each calculation of the affected sourcewide emissions for each monthly compliance period and all data, calculations, test results, and other supporting information used to determine this value.

The MRR burden in the 5th year after the effective date of the promulgated rule is estimated to be 32,000 labor hours at a cost of $1.50 million for new and existing sources.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's rules are listed in 40 CFR part 9 and 48 CFR chapter 15. The OMB control number(s) for the information collection requirements in this rule will be listed in an amendment to 40 CFR part 9 or 48 CFR chapter 15 in a subsequent **Federal Register**.

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 (15 U.S.C. 272 note), directs the EPA to use voluntary consensus standards (VCS) in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. The VCS are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by one or

more VCS bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable VCS.

This rulemaking involves technical standards. The EPA cites the following standards in this rule: EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 3A, 3B, 4, 24, 25, 25A, 204, 204A–F, and 311. Consistent with the NTTAA, EPA conducted searches to identify VCS in addition to these EPA methods. No applicable VCS were identified for EPA Methods 1A, 2A, 2D, 2F, 2G, 204, 204A-F, and 311. The search and review results have been documented and are placed in the docket (Docket No. A–97–41) for this rule.

The four VCS described below were identified as acceptable alternatives to EPA test methods for the purposes of this rule.

The VCS, ASME PTC 19–10–1981–Part 10, ''Flue and Exhaust Gas Analyses,'' is cited in this rule for its manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas. This part of ASME PTC 19–10–1981–Part 10 is an acceptable alternative to Method 3B.

The VCS, ASTM 1475–98, ''Standard Test Method for Density of Liquid Coatings, Inks, and Related Products,'' is cited in this rule for determining the density of coatings and the volatile matter in coatings.

The two VCS, ASTM D2697–86 (Reapproved 1998), ''Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings,'' and ASTM D6093–97, ''Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer,'' are cited in this rule as acceptable alternatives to EPA Method 24 to determine the volume solids content of coatings. Currently, EPA Method 24 does not have a procedure for determining the volume of solids in coatings. These standards augment the procedures in Method 24, which currently states that volume solids content be calculated from the coating manufacturer's formulation.

Six VCS: ASTM D1475–90, ASTM D2369–95, ASTM D3792–91, ASTM D4017–96a, ASTM D4457–85 (Reapproved 91), and ASTM D5403–93 are already incorporated by reference (IBR) in EPA Method 24. Five VCS: ASTM D1979–91, ASTM D3432–89, ASTM D4747–87, ASTM D4827–93, and ASTM PS9–94 are IBR in EPA Method 311.

In addition to the VCS EPA uses in this rule, the search for emissions measurement procedures identified eleven other VCS. The EPA determined that nine of these eleven standards identified for measuring emissions of the HAP or surrogates subject to emission standards in this rule were impractical alternatives to EPA test methods for the purposes of this rule. Therefore, EPA does not intend to adopt these standards for this purpose. For further information on the determination of the eleven methods, see the docket for this rulemaking (Docket A–97–41).

Sections 63.4130, 63.4141, 63.4161, 63.4165, and 63.4166, and Table 1 of subpart NNNN list the EPA testing methods included in the final standards. Under § 63.7(f) of Subpart A of the General Provisions, a source may apply to EPA for permission to use alternative test methods in place of any of the EPA testing methods.

J. Congressional Review Act

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

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: July 3, 2002.

Christine Todd Whitman,

Administrator.

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

PART 63—[AMENDED]

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

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

2. Section 63.14 is amended by revising paragraphs (b)(24), (25), and (i) and adding a new paragraph (b)(26) to read as follows:

§ 63.14 Incorporations by reference

* * * * *

(b) * * *

(24) ASTM D2697–86 (Reapproved 1998), Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings, IBR approved for §§ 63.4141(b)(1) and 63.5160(c).

(25) ASTM D6093–97, Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer, IBR approved for §§ 63.4141(b)(1) and 63.5160(c).

(26) ASTM D1475–98, Standard Test Method for Density of Liquid Coatings, Inks, and Related Products, IBR approved for §§ 63.4141(b)(3) and 63.4141(c).

* * * * *

(i) The following material is available for purchase from at least one of the following addresses: ASME International, Orders/Inquiries, P.O. Box 2300, Fairfield, NJ 07007–2300; or Global Engineering Documents, Sales Department, 15 Inverness Way East, Englewood, CO 80112: ANSI/ASME PTC 19.10–1981, Flue and Exhaust Gas Analyses, IBR approved for §§ 63.3360(d)(1)(iii), 63.4166(a)(3), and 63.5160(d)(1)(iii).

* * * * *

3. Part 63 is amended by adding subpart NNNN to read as follows:

Subpart NNNN—National Emission Standards for Hazardous Air Pollutants: Surface Coating of Large Appliances

Sec.

What This Subpart Covers

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Compliance Requirements for the Emission Rate With Add-On Controls Option

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63.4161 How do I demonstrate initial compliance?
63.4162 [Reserved]
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63.4164 What are the general requirements for performance tests?
63.4165 How do I determine the emission capture system efficiency?
63.4166 How do I determine the add-on control device emission destruction or removal efficiency?
63.4167 How do I establish the emission capture system and add-on control device operating limits during the performance test?
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Other Requirements and Information

63.4180 Who implements and enforces this subpart?
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Tables to Subpart NNNN of Part 63

Table 1 to Subpart NNNN of Part 63—Operating Limits if Using the Emission Rate with Add-on Controls Option
Table 2 to Subpart NNNN of Part 63—Applicability of General Provisions to Subpart NNNN
Table 3 to Subpart NNNN of Part 63—Default Organic HAP Mass Fraction for Solvents and Solvent Blends
Table 4 to Subpart NNNN of Part 63—Default Organic Mass Fraction for Petroleum Solvent Groups

Subpart NNNN—National Emission Standards for Hazardous Air Pollutants: Surface Coating of Large Appliances

What This Subpart Covers

§ 63.4080 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants for large appliance surface coating facilities. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§ 63.4081 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate a facility that applies coatings to large appliance parts or products, and is a major source, is located at a major source, or is part of a major source of emissions of hazardous air pollutants (HAP), except as provided in paragraph (d) of this section. A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year or any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year. You are not subject to this subpart if your large appliance surface coating facility is located at, or is part of, an area source of HAP emissions. An area source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that is not a major source.

(b) The large appliance surface coating source category includes any facility engaged in the surface coating of a large appliance part or product. Large appliance parts and products include but are not limited to cooking equipment; refrigerators, freezers, and refrigerated cabinets and cases; laundry equipment; dishwashers, trash compactors, and water heaters; and heating, ventilation, and air-conditioning (HVAC) units, air-conditioning (except motor vehicle) units, air-conditioning and heating combination units, comfort furnaces, and electric heat pumps. Specifically excluded are heat transfer coils and large commercial and industrial chillers.

(c) The large appliance surface coating activities and equipment to which this subpart applies are listed in paragraphs (c)(1) through (9) of this section:

(1) Surface preparation of large appliance parts and products;

(2) Preparation of a coating for application (e.g., mixing in thinners and other components);

(3) Application of a coating to large appliance parts and products using, for example, spray guns or dip tanks;

(4) Application of porcelain enamel, powder coating, and asphalt interior soundproofing coating;

(5) Flash-off, drying, or curing following the coating application operation;

(6) Cleaning of equipment used in coating operations (e.g., application equipment, hangers, racks);

(7) Storage of coatings, thinners, and cleaning materials;

(8) Conveying of coatings, thinners, and cleaning materials from storage areas to mixing areas or coating application areas, either manually (e.g., in buckets) or by automated means (e.g., transfer through pipes using pumps); and

(9) Handling and conveying of waste materials generated by coating operations.

(d) This subpart does not apply to surface coating that meets any of the criteria of paragraphs (d)(1) through (5) of this section.

(1) The surface coating of large appliance parts such as metal or plastic handles, hinges, or fasteners that have a wider use beyond large appliances is not subject to this subpart.

(2) The surface coating of large appliances conducted for the purpose of repairing or maintaining large appliances used by a facility and not for commerce is not subject to this subpart unless organic HAP emissions from the surface coating itself are as high as the rates specified in paragraph (a) of this section.

(3) The surface coating of heat transfer coils or large commercial and industrial chillers.

(4) The provisions of this subpart do not apply to research or laboratory facilities; janitorial, building, and facility maintenance operations; hobby shops operated for noncommercial purposes or coating applications using hand-held non-refillable aerosol containers.

(5) The provisions of this subpart do not apply to processes involving metal plating or phosphating of a substrate.

(e) If you own or operate an affected source that is subject to this subpart and at the same affected source you also perform surface coating subject to any other subparts in this part, you may choose for the affected source to comply with only one subpart. In order to choose this alternative, the total mass of organic HAP emissions from all surface coating operations in the affected source

must be less than or equal to the total mass of organic HAP emissions that would result if it complied separately with all applicable subparts. You must make this comparison for the initial compliance period and report it in the Notification of Compliance Status as required in § 63.4110(b)(10) and in the Notification of Compliance Status required by the other subparts. If you choose this alternative, your demonstration of compliance with the other subpart constitutes compliance with this subpart.

§ 63.4082 What parts of my plant does this subpart cover?

(a) This subpart applies to each new, reconstructed, and existing affected source.

(b) The affected source is the collection of all of the items listed in paragraphs (b)(1) through (4) of this section that are part of the large appliance surface coating facility:

(1) All coating operations as defined in § 63.4181;

(2) All storage containers and mixing vessels in which coatings, thinners, and cleaning materials are stored or mixed;

(3) All manual and automated equipment and containers used for conveying coatings, thinners, and cleaning materials; and

(4) All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.

(c) An affected source is a new affected source if you commenced its construction after July 23, 2002, and the construction is of a completely new large appliance surface coating facility where previously no large appliance surface coating facility had existed.

(d) An affected source is reconstructed if you meet the criteria as defined in § 63.2.

(e) An affected source is existing if it is not new or reconstructed.

§ 63.4083 When do I have to comply with this subpart?

The date by which you must comply with this subpart is called the compliance date. The compliance date for each type of affected source is specified in paragraphs (a) through (c) of this section. The compliance date begins the initial compliance period during which you conduct the initial compliance demonstration described in §§ 63.4140, 63.4150, and 63.4160.

(a) For a new or reconstructed affected source, the compliance date is the applicable date in paragraph (a)(1) or (2) of this section.

(1) If the initial startup of your new or reconstructed affected source is before July 23, 2002, the compliance date is July 23, 2002.

(2) If the initial startup of your new or reconstructed affected source occurs after July 23, 2002, the compliance date is the date of initial startup of your affected source.

(b) For an existing affected source, the compliance date is July 25, 2005.

(c) For an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP emissions, the compliance date is specified in paragraphs (c)(1) and (2) of this section.

(1) For any portion of the source that becomes a new or reconstructed affected source subject to this subpart, the compliance date is the date of initial startup of the affected source, or the date the area source becomes a major source, or July 23, 2002, whichever is latest.

(2) For any portion of the source that becomes an existing affected source subject to this subpart, the compliance date is the date 1 year after the area source becomes a major source or July 25, 2005, whichever is later.

(d) You must meet the notification requirements in § 63.4110 according to the dates specified in that section and in subpart A of this part. Some of the notifications must be submitted before the compliance dates described in paragraphs (a) through (c) of this section.

Emission Limitations

§ 63.4090 What emission limits must I meet?

(a) For an existing affected source, you must limit organic HAP emissions to the atmosphere to no more than 0.13 kilogram per liter (kg/liter) (1.1 pound per gallon (lb/gal)) of coating solids used during each compliance period.

(b) For a new or reconstructed affected source, you must limit organic HAP emissions to the atmosphere to no more than 0.022 kg/liter (0.18 lb/gal) of coating solids used during each compliance period.

§ 63.4091 What are my options for meeting the emission limits?

You must include all coatings, thinners, and cleaning materials used in the affected source when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in § 63.4090. To make this determination, you must use at least one of the three compliance options listed in paragraphs (a) through (c) of this section. You may apply any of the compliance options to an individual coating operation or to multiple coating operations as a group or to the entire affected source. You may use different compliance options for different coating operations or at different times on the same coating operation. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document this switch as required by § 63.4130(c), and you must report it in the next semiannual compliance report required in § 63.4120.

(a) *Compliant material option.* Demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit in § 63.4090, and that each thinner and each cleaning material used contains no organic HAP. You must meet all the requirements of §§ 63.4140, 63.4141, and 63.4142 to demonstrate compliance with the emission limit using this option.

(b) *Emission rate without add-on controls option.* Demonstrate that, based on data on the coatings, thinners, and cleaning materials used in the coating operation(s), the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in § 63.4090. You must meet all the requirements of §§ 63.4150, 63.4151, and 63.4152 to demonstrate compliance with the emission limit using this option.

(c) *Emission rate with add-on controls option.* Demonstrate that, based on data on the coatings, thinners, and cleaning materials used in the coating operation(s) and the emission reductions achieved by emission capture and add-on controls, the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in § 63.4090. If you use this compliance option, you must also demonstrate that all emission capture systems and add-on control devices for the coating operation(s) meet the operating limits required in § 63.4092, except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.4161(h), and that you meet the work practice standards required in § 63.4093. You must meet all the requirements of §§ 63.4160 through 63.4168 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

§ 63.4092 What operating limits must I meet?

(a) For any coating operation(s) on which you use the compliant material

option or the emission rate without add-on controls option, you are not required to meet any operating limits.

(b) For any controlled coating operation(s) on which you use the emission rate with add-on controls option, except those for which you use a solvent recovery system and conduct a liquid-liquid material balance according to § 63.4161(h), you must meet the operating limits specified in Table 1 to this subpart. These operating limits apply to the emission capture and control systems on the coating operation(s) for which you use this option, and you must establish the operating limits during the performance test according to the requirements in § 63.4167. You must meet the operating limits at all times after you establish them.

(c) If you use an add-on control device other than those listed in Table 1 to this subpart or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the U.S. Environmental Protection Agency (EPA) Administrator for approval of alternative monitoring under § 63.8(f).

§ 63.4093 What work practice standards must I meet?

(a) For any coating operation(s) on which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any work practice standards.

(b) If you use the emission rate with add-on controls option, you must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by, the coating operation(s) for which you use this option; or you must meet an alternative standard as provided in paragraph (c) of this section. The plan must specify practices and procedures to ensure that, at a minimum, the elements specified in paragraphs (b)(1) through (5) of this section are implemented.

(1) All organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be stored in closed containers.

(2) Spills of organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be minimized.

(3) Organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.

(4) Mixing vessels which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents.

(5) Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment.

(c) As provided in § 63.6(g), we, the EPA, may choose to grant you permission to use an alternative to the work practice standards in this section.

General Compliance Requirements

§ 63.4100 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations in this subpart as specified in paragraphs (a)(1) and (2) of this section.

(1) Any coating operation(s) for which you use the compliant material option or the emission rate without add-on controls option, as specified in § 63.4091(a) and (b), must be in compliance with the applicable emission limit in § 63.4090 at all times.

(2) Any coating operation(s) for which you use the emission rate with add-on controls option, as specified in § 63.4091(c), must be in compliance with the applicable emission limit in § 63.4090 and work practice standards in § 63.4093 at all times. Each controlled coating operation must be in compliance with the operating limits for emission capture systems and add-on control devices required by § 63.4092 at all times, except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.4161(h).

(b) You must always operate and maintain your affected source, including all air pollution control and monitoring equipment you use for purposes of complying with this subpart, according to the provisions in § 63.6(e)(1)(i).

(c) If your affected source uses an emission capture system and add-on control device, you must maintain a log detailing the operation and maintenance of the emission capture system, add-on control device, and continuous parameter monitors during the period between the compliance date specified for your affected source in § 63.4083 and the date when the initial emission capture system and add-on control device performance tests have been completed as specified in § 63.4160. This requirement does not apply to a solvent recovery system for which you conduct a liquid-liquid material balance according to § 63.4161(h) in lieu of conducting performance tests.

(d) If your affected source uses an emission capture system and add-on control device, you must develop and implement a written startup, shutdown, and malfunction plan according to the provisions in § 63.6(e)(3). The plan must address the startup, shutdown, and corrective actions in the event of a malfunction of the emission capture system or the add-on control device. The plan must also address any coating operation equipment that may cause increased emissions or that would affect capture efficiency if the process equipment malfunctions, such as conveyors that move parts among enclosures.

§ 63.4101 What parts of the General Provisions apply to me?

Table 2 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

Notifications, Reports, and Records

§ 63.4110 What notifications must I submit?

(a) You must submit the notifications in §§ 63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (e) and (h) that apply to you by the dates specified in those sections, except as provided in paragraphs (a)(1) and (2) of this section.

(1) You must submit the Initial Notification required by § 63.9(b) for an existing affected source no later than July 23, 2003. For a new or reconstructed affected source, you must submit the Initial Notification no later than 120 days after initial startup or November 20, 2002, whichever is later.

(2) You must submit the Notification of Compliance Status required by § 63.9(h) no later than 30 calendar days following the end of the initial compliance period described in § 63.4140, § 63.4150, or § 63.4160 that applies to your affected source.

(b) The Notification of Compliance Status must contain the information specified in paragraphs (b)(1) through (10) of this section and the applicable information specified in § 63.9(h).

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of the report and beginning and ending dates of the reporting period. The reporting period is the initial compliance period described in § 63.4140, § 63.4150, or § 63.4160 that applies to your affected source.

(4) Identification of the compliance option or options specified in § 63.4091 that you used on each coating operation in the affected source during the initial compliance period.

(5) Statement of whether or not the affected source achieved the emission limitations for the initial compliance period.

(6) If you had a deviation, include the information in paragraphs (b)(6)(i) and (ii) of this section.

(i) A description of and statement of the cause of the deviation.

(ii) If you failed to meet the applicable emission limit in § 63.4090, include all the calculations you used to determine the kg organic HAP emitted per liter of coating solids used. You do not need to submit information provided by the materials suppliers or manufacturers or test reports.

(7) For each of the data items listed in paragraphs (b)(7)(i) through (iv) of this section that is required by the compliance option(s) you used to demonstrate compliance with the emission limit, include an example of how you determined the value, including calculations and supporting data. Supporting data can include a copy of the information provided by the supplier or manufacturer of the example coating or material or a summary of the results of testing conducted according to § 63.4141(a), (b), or (c). You do not need to submit copies of any test reports.

(i) Mass fraction of organic HAP for one coating, for one thinner, and for one cleaning material.

(ii) Volume fraction of coating solids for one coating.

(iii) Density for one coating, one thinner, and one cleaning material, except that if you use the compliant material option, only the example coating density is required.

(iv) The amount of waste materials and the mass of organic HAP contained in the waste materials for which you are claiming an allowance in Equation 1 of § 63.4151.

(8) The determination of kg organic HAP emitted per liter of coating solids used for the compliance option(s) you use, as specified in paragraphs (b)(8)(i) through (iii) of this section.

(i) For the compliant material option, provide an example determination of the organic HAP content for one coating, according to § 63.4141(d).

(ii) For the emission rate without add-on controls option, provide the calculation of the total mass of organic HAP emissions; the calculation of the total volume of coating solids used; and the calculation of the organic HAP emission rate, using Equations 1, 1A through 1C, 2, and 3, respectively, of § 63.4151.

(iii) For the emission rate with add-on controls option, provide the calculation of the total mass of organic HAP emissions for the coatings, thinners, and cleaning materials used, using Equations 1 and 1A through 1C of § 63.4151; the calculation of the total volume of coating solids used, using Equation 2 of § 63.4151; the calculation of the mass of organic HAP emission reduction by emission capture systems and add-on control devices, using Equations 1, 1A through 1C, 2, 3, and 3A through 3C of § 63.4161, as applicable; and the calculation of the organic HAP emission rate, using Equation 4 of § 63.4161.

(9) For the emission rate with add-on controls option, you must include the information specified in paragraphs (b)(9)(i) through (v) of this section, except that the requirements in paragraphs (b)(9)(i) through (iii) of this section do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.4161(h).

(i) For each emission capture system, a summary of the data and copies of the calculations supporting the determination that the emission capture system is a permanent total enclosure (PTE) or a measurement of the emission capture system efficiency. Include a description of the protocol followed for measuring capture efficiency, summaries of any capture efficiency tests conducted, and any calculations supporting the capture efficiency determination. If you use the data quality objective (DQO) or lower confidence limit (LCL) approach, you must also include the statistical calculations to show you meet the DQO or LCL criteria in appendix A to subpart KK of this part. You do not need to submit complete test reports.

(ii) A summary of the results of each add-on control device performance test. You do not need to submit complete test reports.

(iii) A list of each emission capture system's and add-on control device's operating limits and a summary of the data used to calculate those limits.

(iv) A statement of whether or not you developed and implemented the work practice plan required by § 63.4093.

(v) A statement of whether or not you developed and implemented the startup, shutdown, and malfunction plan required by § 63.4100(d).

(10) If you have chosen for your affected source to comply with the requirements of another subpart in lieu of the requirements of this subpart, as allowed in § 63.4081(d), your Notification of Compliance Status must include a statement certifying your intent, as well as documentation and supporting materials showing that, during the initial compliance period, your affected source's total organic HAP emissions were equal to or less than the organic HAP emissions that would have resulted from complying separately with each applicable subpart.

§ 63.4120 What reports must I submit?

You must submit semiannual compliance reports for each affected source according to the requirements of this section. The semiannual compliance reporting requirements of this section may be satisfied by reports required under other parts of the Clean Air Act (CAA), as specified in paragraph (a)(5) of this section.

(a) Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must prepare and submit each semiannual compliance report according to the dates specified in paragraphs (a)(1) through (4) of this section.

(1) The first semiannual compliance report must cover the first semiannual reporting period which begins the day after the end of the initial compliance period described in § 63.4140, § 63.4150, or § 63.4160 that applies to your affected source and ends on June 30 or December 31, whichever date is the first date following the end of the initial compliance period.

(2) Each subsequent semiannual compliance report must cover the subsequent semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(3) Each semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(4) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent semiannual compliance reports according to the dates the permitting authority has established instead of the date specified in paragraph (a)(3) of this section.

(5) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a semiannual compliance report pursuant to this section along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the semiannual compliance report includes all required information concerning deviations from

any emission limitation in this subpart, its submission shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a semiannual compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permitting authority.

(b) The semiannual compliance report must contain the information specified in paragraphs (b)(1) through (4) of this section and the information specified in paragraphs (c) through (j) of this section that is applicable to your affected source.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31.

(4) Identification of the compliance option or options specified in § 63.4091 that you used on each coating operation during the reporting period. If you switched between compliance options during the reporting period, you must report the beginning and ending dates you used each option.

(c) If there were no deviations from the emission limitations in §§ 63.4090, 63.4092, and 63.4093 that apply to you, the semiannual compliance report must include a statement that there were no deviations from the emission limitations during the reporting period.

(d) If you use the compliant material option and there was a deviation from the applicable emission limit in § 63.4090, the semiannual compliance report must contain the information in paragraphs (d)(1) through (4) of this section.

(1) Identification of each coating used that deviated from the emission limit, each thinner and cleaning material used that contained organic HAP, and the dates and time periods each was used.

(2) The determination of the organic HAP content, according to § 63.4141(d), for each coating identified in paragraph (d)(1) of this section. You do not need to submit background data supporting this calculation, for example, information provided by coating suppliers or manufacturers or test reports.

(3) The determination of mass fraction of organic HAP for each thinner and cleaning material identified in paragraph (d)(1) of this section. You do not need to submit background data supporting this calculation, for example, information provided by material suppliers or manufacturers or test reports.

(4) A statement of the cause of each deviation.

(e) If you use the emission rate without add-on controls option and there was a deviation from the applicable emission limit in § 63.4090, the semiannual compliance report must contain the information in paragraphs (e)(1) through (3) of this section.

(1) The beginning and ending dates of each compliance period during which the organic HAP emission rate exceeded the emission limit.

(2) The calculations used to determine the organic HAP emission rate for the compliance period in which the deviation occurred. You must provide the calculations for Equations 1, 1A through 1C, 2, and 3 in § 63.4151; and, if applicable, the calculation used to determine the organic HAP in waste materials according to § 63.4151(e)(4). You do not need to submit background data supporting these calculations, for example, information provided by materials suppliers or manufacturers or test reports.

(3) A statement of the cause of each deviation.

(f) If you use the emission rate with add-on controls option and there were no periods during which the continuous parameter monitoring systems (CPMS) were out-of-control as specified in § 63.8(c)(7), the semiannual compliance report must include a statement that there were no periods during which the CPMS were out-of-control during the reporting period.

(g) If you use the emission rate with add-on controls option and there was a deviation from an emission limitation (including any periods when emissions bypassed the add-on control device and were diverted to the atmosphere), the semiannual compliance report must contain the information in paragraphs (g)(1) through (14) of this section. This includes periods of startup, shutdown, and malfunction during which deviations occurred.

(1) The beginning and ending dates of each compliance period during which the organic HAP emission rate exceeded the applicable emission limit in § 63.4090.

(2) The calculations used to determine the organic HAP emission rate for each compliance period in which a deviation occurred. You must provide the calculation of the total mass of organic HAP emissions for the coatings, thinners, and cleaning materials used during the compliance period, using Equations 1, 1A through 1C, and 2 of § 63.4151 and, if applicable, the calculation used to determine the mass of organic HAP in waste materials according to § 63.4151(e)(4); the calculation of the total volume of coating solids used during the compliance period, using Equation 2 of § 63.4151; the calculation of the mass of organic HAP emission reduction during the compliance period by emission capture systems and add-on control devices, using Equations 1, 1A through 1C, 2, 3, and 3A through 3C of § 63.4161; and the calculation of the organic HAP emission rate, using Equation 4 of § 63.4161. You do not need to submit the background data supporting these calculations, for example, information provided by materials suppliers or manufacturers or test reports.

(3) The date and time that each malfunction started and stopped.

(4) A brief description of the CPMS.

(5) The date of the latest CPMS certification or audit.

(6) The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.

(7) The date, time, and duration that each CPMS was out-of-control, including the information in § 63.8(c)(8).

(8) The date and time period of each deviation from an operating limit in Table 1 to this subpart; date and time period of any bypass of the add-on control device; and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(9) A summary of the total duration of each deviation from an operating limit in Table 1 to this subpart and bypass of the add-on control device during the semiannual reporting period and the total duration as a percent of the total source operating time during that semiannual reporting period.

(10) A breakdown of the total duration of the deviations from the operating limits in Table 1 to this subpart and bypasses of the add-on control device during the semiannual reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(11) A summary of the total duration of CPMS downtime during the semiannual reporting period and the total duration of CPMS downtime as a percent of the total source operating time during that semiannual reporting period.

(12) A description of any changes in the CPMS, coating operation, emission capture system, or add-on control

device since the last semiannual reporting period.

(13) For each deviation from the work practice standards, a description of the deviation, the date and time period of the deviation, and the actions you took to correct the deviation.

(14) A statement of the cause of each deviation.

(h) If you use the emission rate with add-on controls option, you must submit reports of performance test results for emission capture systems and add-on control devices no later than 60 days after completing the tests as specified in § 63.10(d)(2).

(i) [Reserved]

(j) If you use the emission rate with add-on controls option and you have a startup, shutdown, or malfunction during the semiannual reporting period, you must submit the reports specified in paragraphs (j)(1) and (2) of this section.

(1) If your actions were consistent with your startup, shutdown, and malfunction plan (SSMP), you must include the information specified in § 63.10(d)(5) in the semiannual compliance report required by paragraph (a) of this section.

(2) If your actions were not consistent with your SSMP, you must submit an immediate startup, shutdown, and malfunction report as described in paragraphs (j)(2)(i) and (ii) of this section.

(i) You must describe the actions taken during the event in a report delivered by facsimile (fax), telephone, or other means to the Administrator within 2 working days after starting actions that are inconsistent with the plan.

(ii) You must submit a letter to the Administrator within 7 working days after the end of the event, unless you have made alternative arrangements with the Administrator as specified in § 63.10(d)(5)(ii). The letter must contain the information specified in § 63.10(d)(5)(ii).

§ 63.4130 What records must I keep?

You must collect and keep records of the data and information specified in this section. Failure to collect and keep these records is a deviation from the applicable standard.

(a) A copy of each notification and report that you submitted to comply with this subpart and the documentation supporting each notification and report.

(b) A current copy of information provided by materials suppliers or manufacturers such as manufacturer's formulation data or test data used to determine the mass fraction of organic HAP and density for each coating, thinner, and cleaning material and the volume fraction of coating solids for each coating. If you conducted testing to determine mass fraction of organic HAP, density, or volume fraction of coating solids, you must keep a copy of the complete test report. If you use information provided to you by the manufacturer or supplier of the material that was based on testing, you must keep the summary sheet of results provided to you by the manufacturer or supplier. You are not required to obtain the test report or other supporting documentation from the manufacturer or supplier.

(c) For each compliance period, a record of the time periods (beginning and ending dates and times) and the coating operations at which each compliance option was used and a record of all determinations of kg organic HAP per liter of coating solids for the compliance option(s) you used, as specified in paragraphs (c)(1) through (3) of this section.

(1) For the compliant material option, a record of the determination of the organic HAP content for each coating, according to § 63.4141(d).

(2) For the emission rate without add-on controls option, a record of the calculation of the total mass of organic HAP emissions for the coatings, thinners, and cleaning materials used each month, using Equations 1 and 1A through 1C of § 63.4151 and, if applicable, the calculations used to determine the mass of organic HAP in waste materials according to § 63.4151(e)(4); the calculation of the total volume of coating solids used each month, using Equation 2 of § 63.4151; and the calculation of the organic HAP emission rate, using Equation 3 of § 63.4151.

(3) For the emission rate with add-on controls option, a record of the calculation of the total mass of organic HAP emissions for the coatings, thinners, and cleaning materials used each month, using Equations 1 and 1A through 1C of § 63.4151 and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.4151(e)(4); the calculation of the total volume of coating solids used each month, using Equation 2 of § 63.4151; the calculation of the mass of organic HAP emission reduction by emission capture systems and add-on control devices, using Equations 1, 1A through 1C, 2, 3, and 3A through 3C of § 63.4161, as applicable; and the calculation of the organic HAP emission rate, using Equation 4 of § 63.4161.

(d) A record of the name and volume of each coating, thinner, and cleaning material used during each compliance period.

(e) A record of the mass fraction of organic HAP for each coating, thinner, and cleaning material used during each compliance period.

(f) A record of the volume fraction of coating solids for each coating used during each compliance period except for zero-HAP coatings for which volume solids determination is not required as allowed in § 63.4141(a).

(g) A record of the density for each coating used during each compliance period except for zero-HAP coatings for which volume solids determination is not required as allowed in § 63.4141(a) and, if you use either the emission rate without add-on controls or the emission rate with add-on controls compliance option, a record of the density for each thinner and cleaning material used during each compliance period.

(h) If you use an allowance in Equation 1 of § 63.4151 for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage, and disposal facility (TSDF) according to § 63.4151(e)(4), you must keep records of the information specified in paragraphs (h)(1) through (3) of this section.

(1) The name and address of each TSDF to which you sent waste materials for which you use an allowance in Equation 1 of § 63.4151, a statement of which subparts under 40 CFR parts 262, 264, 265, and 266 apply to the facility, and the date of each shipment.

(2) Identification of the coating operations producing waste materials included in each shipment and the month or months in which you used the allowance for these materials in Equation 1 of § 63.4151.

(3) The methodology used in accordance with § 63.4151(e)(4) to determine the total amount of waste materials sent to or the amount collected, stored, and designated for transport to a TSDF each month; and the methodology to determine the mass of organic HAP contained in these waste materials. This must include the sources for all data used in the determination, methods used to generate the data, frequency of testing or monitoring, and supporting calculations and documentation, including the waste manifest for each shipment.

(i) [Reserved]

(j) You must keep records of the date, time, and duration of each deviation.

(k) If you use the emission rate with add-on controls option, you must keep the records specified in paragraphs (k)(1) through (8) of this section.

(1) For each deviation, a record of whether the deviation occurred during a

period of startup, shutdown, or malfunction.

(2) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) The records required to show continuous compliance with each operating limit specified in Table 1 to this subpart that applies to you.

(4) For each capture system that is a PTE, the data and documentation you used to support a determination that the capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and has a capture efficiency of 100 percent, as specified in § 63.4165(a).

(5) For each capture system that is not a PTE, the data and documentation you used to determine capture efficiency according to the requirements specified in §§ 63.4164 and 63.4165(b) through (e) including the records specified in paragraphs (k)(5)(i) through (iii) of this section that apply to you.

(i) *Records for a liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* Records of the mass of total volatile hydrocarbon (TVH) as measured by Method 204A or F of appendix M to 40 CFR part 51 for each material used in the coating operation, and the total TVH for all materials used during each capture efficiency test run, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run, as measured by Method 204D or E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(ii) *Records for a gas-to-gas protocol using a temporary total enclosure or a building enclosure.* Records of the mass of TVH emissions captured by the emission capture system as measured by Method 204B or C of appendix M to 40 CFR part 51 at the inlet to the add-on control device, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run, as measured by Method 204D or E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(iii) *Records for an alternative protocol.* Records needed to document a capture efficiency determination using an alternative method or protocol as specified in § 63.4165(e), if applicable.

(6) The records specified in paragraphs (k)(6)(i) and (ii) of this section for each add-on control device organic HAP destruction or removal efficiency determination as specified in § 63.4166.

(i) Records of each add-on control device performance test conducted according to §§ 63.4164 and 63.4166.

(ii) Records of the coating operation conditions during the add-on control device performance test showing that the performance test was conducted under representative operating conditions.

(8) Records of the data and calculations you used to establish the emission capture and add-on control device operating limits as specified in § 63.4167 and to document compliance with the operating limits as specified in Table 1 of this subpart.

(9) A record of the work practice plan required by § 63.4093, and documentation that you are implementing the plan on a continuous basis.

§ 63.4131 In what form and for how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a data base.

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You may keep the records off site for the remaining 3 years.

Compliance Requirements for the Compliant Material Option

§ 63.4140 By what date must I conduct the initial compliance demonstration?

You must complete the initial compliance demonstration for the initial compliance period according to the requirements in § 63.4141. The initial compliance period begins on the applicable compliance date specified in § 63.4083 and ends on the last day of the first full month after the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next month. The initial compliance demonstration includes the determination according to § 63.4141 and supporting documentation showing that, during the initial compliance period, you used no coating with an organic HAP content that exceeded the applicable emission limit in § 63.4090, and that you used no thinners or cleaning materials that contained organic HAP.

§ 63.4141 How do I demonstrate initial compliance with the emission limitations?

You may use the compliant material option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. You must use either the emission rate without add-on controls option or the emission rate with add-on controls option for any coating operation(s) in the affected source for which you do not use this option. To demonstrate initial compliance using the compliant material option, the coating operation or group of coating operations must use no coating with an organic HAP content that exceeds the applicable emission limit in § 63.4090 and must use no thinner or cleaning material that contains organic HAP, as determined according to this section during the initial compliance period. Any coating operation(s) for which you use the compliant material option is not required to meet the operating limits or work practice standards required in §§ 63.4092 and 63.4093, respectively. To demonstrate initial compliance with the emission limitations using the compliant material option, you must meet all the requirements of this section for the coating operation(s) using this option. Use the procedures in this section on each coating, thinner, and cleaning material in the condition it is in when it is received from its manufacturer or supplier and prior to any alteration. You do not need to redetermine the HAP content of coatings, thinners, or cleaning materials that have been reclaimed onsite and reused in the coating operation(s) for which you use the compliant material option, provided these materials in their condition as received were demonstrated to comply with the compliant material option. If the mass fraction of organic HAP of a coating equals zero, determined according to paragraph (a) of this section, and you use the compliant material option, you are not required to comply with

paragraphs (b) and (c) of this section for that coating.

(a) *Determine the mass fraction of organic HAP for each material used.* You must determine the mass fraction of organic HAP for each coating, thinner, and cleaning material used during the compliance period by using one of the options in paragraphs (a)(1) through (5) of this section.

(1) *Method 311 (appendix A to 40 CFR part 63).* You may use Method 311 for determining the mass fraction of organic HAP. Use the procedures specified in paragraphs (a)(1)(i) and (ii) of this section when performing a Method 311 test.

(i) Count each organic HAP that is measured to be present at 0.1 percent by mass or more for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other organic HAP compounds. For example, if toluene (not an OSHA carcinogen) is measured to be 0.5 percent of the material by mass, you do not have to count it. Express the mass fraction of each organic HAP you count as a value truncated to four places after the decimal point (for example, 0.3791).

(ii) Calculate the total mass fraction of organic HAP in the test material by adding up the individual organic HAP mass fractions and truncating the result to three places after the decimal point (for example, 0.763).

(2) *Method 24 (appendix A to 40 CFR part 60).* For coatings, you may use Method 24 to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for mass fraction of organic HAP.

(3) *Alternative method.* You may use an alternative test method for determining the mass fraction of organic HAP once the Administrator has approved it. You must follow the procedure in § 63.7(f) to submit an alternative test method for approval.

(4) *Information from the supplier or manufacturer of the material.* You may rely on information other than that generated by the test methods specified in paragraphs (a)(1) through (3) of this section, such as manufacturer's formulation data if they represent each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other organic HAP compounds. For example, if toluene (not an OSHA carcinogen) is 0.5 percent of the material by mass, you do not have to count it. If there is a disagreement between such information and results of a test conducted according to paragraphs (a)(1) through (3) of this section, then the test method results will take precedence.

(5) *Solvent blends.* Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP which must be counted toward the total organic HAP mass fraction of the materials. When test data and manufacturer's data for solvent blends are not available, you may use the default values for mass fraction of organic HAP in these solvent blends listed in Table 3 or 4 of this subpart. If you use the tables, you must use the values in Table 3 for all solvent blends that match Table 3 entries, and you may only use Table 4 if the solvent blends in the materials you use do not match any of the solvent blends in Table 3, and you only know whether the blend is aliphatic or aromatic. However, if the results of a Method 311 test indicate higher values than those listed on Table 3 or 4 of this subpart, the Method 311 results will take precedence.

(b) *Determine the volume fraction of coating solids for each coating.* You must determine the volume fraction of coating solids (liters of coating solids per liter of coating) for each coating used during the compliance period by a test, by information provided by the supplier or the manufacturer of the material, or by calculation as specified in paragraphs (b)(1) through (3) of this section.

(1) *ASTM Method D2697–86 (Reapproved 1998) or D6093–97.* You may use ASTM Method D2697–86 (Reapproved 1998), ''Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings,'' or D6093–97, ''Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer'' (incorporated by reference, see § 63.14) to determine the volume fraction of coating solids for each coating. Divide the nonvolatile volume percent obtained with the methods by 100 to calculate volume fraction of coating solids.

(2) *Information from the supplier or manufacturer of the material.* You may obtain the volume fraction of coating solids for each coating from the supplier or manufacturer.

(3) *Calculation of volume fraction of coating solids.* If the volume fraction of coating solids cannot be determined using the options in paragraphs (b)(1) and (2) of this section, you must determine it using Equation 1 of this section:

$$V_s = 1 - \frac{m_{volatiles}}{D_{avg}} \qquad \text{(Eq. 1)}$$

Where:

V_s = volume fraction of coating solids, liters coating solids per liter coating.

$m_{volatiles}$ = total volatile matter content of the coating, including HAP, volatile organic compounds (VOC), water, and exempt compounds, determined according to Method 24 in appendix A of 40 CFR part 60, grams volatile matter per liter coating.

D_{avg} = average density of volatile matter in the coating, grams volatile matter per liter volatile matter, determined from test results using ASTM Method D1475–98, ''Standard Test Method for Density of Liquid Coatings, Inks, and Related Products'' (incorporated by reference, see § 63.14) information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475–98 test results and other information sources, the test results will take precedence.

(c) *Determine the density of each coating.* Determine the density of each coating used during the compliance period from test results using ASTM Method D1475–98, ''Standard Test Method for Density of Liquid Coatings, Inks, and Related Products'' (incorporated by reference, see § 63.14), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475–98 test results and other information sources, the test results will take precedence.

(d) Determine the organic HAP content of each coating. Determine the organic HAP content, kg organic HAP per liter coating solids, of each coating used during the compliance period, using Equation 2 of this section, except that if the mass fraction of organic HAP equals zero, then the organic HAP content also equals zero and you are not required to use Equation 2 to calculate the organic HAP content:

$$H_c = (D_c)(W_c) / V_s \qquad \text{(Eq. 2)}$$

Where:

H_c = organic HAP content of the coating, kg organic HAP per liter coating solids.

D_c = density of coating, kg coating per liter coating, determined according to paragraph (c) of this section.

W_c = mass fraction of organic HAP in the coating, kg organic HAP per kg coating, determined according to paragraph (a) of this section.

V_s = volume fraction of coating solids, liters coating solids per liter coating, determined according to paragraph (b) of this section.

(e) The organic HAP content for each coating used during the initial compliance period must be less than or equal to the applicable emission limit in § 63.4090; and each thinner and cleaning material used during the initial compliance period must contain no organic HAP, determined according to paragraph (a) of this section. You must keep all records required by §§ 63.4130 and 63.4131. As part of the Notification of Compliance Status required in § 63.4110, you must identify the coating operation(s) for which you used the compliant material option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because you used no coatings for which the organic HAP content exceeds the applicable emission limit in § 63.4090, and you used no thinners or cleaning materials that contain organic HAP, determined according to paragraph (a) of this section.

§ 63.4142 How do I demonstrate continuous compliance with the emission limitations?

(a) For each compliance period, to demonstrate continuous compliance, you must use no coating for which the organic HAP content, determined according to § 63.4141(d), exceeds the applicable emission limit in § 63.4090, and use no thinner or cleaning material that contains organic HAP, determined according to § 63.4141(a). Each month following the initial compliance period described in § 63.4140 is a compliance period.

(b) If you choose to comply with the emission limitations by using the compliant material option, the use of any coating, thinner, or cleaning material that does not meet the criteria specified in paragraph (a) of this section is a deviation from the emission limitations that must be reported as specified in §§ 63.4110(b)(6) and 63.4120(d).

(c) As part of each semiannual compliance report required by § 63.4120, you must submit a statement that you were in compliance with the emission limitations during the reporting period because you used no thinners or cleaning materials that contained organic HAP, and you used no coatings for which the organic HAP content exceeded the applicable emission limit in § 63.4090.

(d) You must maintain records as specified in §§ 63.4130 and 63.4131.

Compliance Requirements for the Emission Rate Without Add-On Controls Option

§ 63.4150 By what date must I conduct the initial compliance demonstration?

You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.4151. The initial compliance period begins on the applicable compliance date specified in § 63.4083 and ends on the last day of the first full month after the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next month. The initial compliance demonstration includes the calculations according to § 63.4151 and supporting documentation showing that the organic HAP emission rate for the initial compliance period was equal to or less than the applicable emission limit in § 63.4090.

§ 63.4151 How do I demonstrate initial compliance with the emission limitations?

You may use the emission rate without add-on controls option for any individual coating operation, for any group of coating operations in the affected source, or for all of the coating operations in the affected source. You must use either the compliant material option or the emission rate with add-on controls option for any coating operation(s) in the affected source for which you do not use this option. To demonstrate initial compliance using the emission rate without add-on controls option, the coating operation(s) must meet the applicable emission limit in § 63.4090 but not the operating limits or work practice standards in §§ 63.4092 and 63.4093, respectively, during the initial compliance period. You must meet all of the requirements of this section to demonstrate initial compliance with the applicable emission limit in § 63.4090 for the coating operation(s). When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate with add-on controls option. You do not need to redetermine the mass of organic HAP in coatings, thinners, or cleaning materials that have been reclaimed onsite and reused in the coating operation(s) for which you use the emission rate without add-on controls option.

(a) *Determine the mass fraction of organic HAP for each material.* Determine the mass fraction of organic HAP for each coating, thinner, and cleaning material used during the compliance period according to the requirements in § 63.4141(a).

(b) *Determine the volume fraction of coating solids for each coating.* Determine the volume fraction of coating solids for each coating used during the compliance period according to the requirements in § 63.4141(b).

(c) *Determine the density of each material.* Determine the density of each coating, thinner, and cleaning material used during the compliance period according to the requirements in § 63.4141(c).

(d) *Determine the volume of each material used during the compliance period.* Determine the volume (liters) of each coating, thinner, and cleaning material used during the compliance period by measurement or usage records.

(e) *Calculate the mass of organic HAP emissions during the compliance period.* The mass of organic HAP emissions is the combined mass of organic HAP contained in all coatings, thinners, and cleaning materials used during the compliance period minus the organic HAP in certain waste materials. Calculate it using Equation 1 of this section.

$$H_e = A + B + C - R_w \qquad \text{(Eq. 1)}$$

Where:

H_e = total mass of organic HAP emissions during the compliance period, kg.

A = total mass of organic HAP in the coatings used during the compliance period, kg, as calculated in Equation 1A of this section.

B = total mass of organic HAP in the thinners used during the compliance period, kg, as calculated in Equation 1B of this section.

C = total mass of organic HAP in the cleaning materials used during the compliance period, kg, as calculated in Equation 1C of this section.

R_w = total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the compliance period, kg, determined according to paragraph (e)(4) of this section. (You may assign a value of zero to R_w if you do not wish to use this allowance.)

(1) Calculate the kg organic HAP in the coatings used during the compliance period, using Equation 1A of this section:

$$A = \sum_{i=1}^{m} \left(Vol_{c,i}\right)\left(D_{c,i}\right)\left(W_{c,i}\right) \qquad \text{(Eq. 1A)}$$

Where:

A = total mass of organic HAP in the coatings used during the compliance period, kg.

$Vol_{c,i}$ = total volume of coating, i, used during the compliance period, liters.

$D_{c,i}$ = density of coating, i, kg coating per liter coating.

$W_{c,i}$ = mass fraction of organic HAP in coating, i, kg organic HAP per kg coating.

m = number of different coatings used during the compliance period.

(2) Calculate the kg of organic HAP in the thinners used during the compliance period, using Equation 1B of this section:

$$B = \sum_{j=i}^{n} \left(Vol_{t,j}\right)\left(D_{t,j}\right)\left(W_{t,j}\right) \qquad \text{(Eq. 1B)}$$

Where:

B = total mass or organic HAP in the thinners used during the compliance period, kg.

$Vol_{t,j}$ = total volume of thinner, j, used during the compliance period, liters.

$D_{t,j}$ = density of thinner, j, kg thinner per liter thinner.

$W_{t,j}$ = mass fraction of organic HAP in thinner, j, kg organic HAP per kg thinner.

n = number of different thinners used during the compliance period.

(3) Calculate the kg organic HAP in the cleaning materials used during the compliance period, using Equation 1C of this section:

$$C = \sum_{k=1}^{P} \left(Vol_{s,k}\right)\left(D_{s,k}\right)\left(W_{s,k}\right) \qquad \text{(Eq. 1C)}$$

Where:

C = total mass of organic HAP in the cleaning materials used during the compliance period, kg.

$Vol_{s,k}$ = total volume of cleaning material, k, used during the compliance period, liters.

$D_{s,k}$ = density of cleaning material, k, kg cleaning material per liter cleaning material.

$W_{s,k}$ = mass fraction of organic HAP in cleaning material, k, kg organic HAP per kg material.

p = number of different cleaning materials used during the compliance period.

(4) Determine the mass of organic HAP contained in waste materials sent to a TSDF. If you choose to account for the mass of organic HAP contained in waste materials sent or designated for shipment to a hazardous waste TSDF in the calculation of the mass of organic HAP emissions (Equation 1 of this section), then you must determine it according to paragraphs (e)(4)(i) through (v) of this section.

(i) You may include in the determination of organic HAP in waste materials only the waste materials that are generated by coating operations for which you use Equation 1 of this section and that will be treated or disposed of by a facility that is regulated as a TSDF under 40 CFR part 262, 264, 265, or 266. The TSDF may be either off-site or on-site. You may not include in the determination the organic HAP contained in wastewater.

(ii) You must determine either the amount of waste materials sent to a TSDF during the compliance period or the amount collected and stored during the compliance period and designated for future transport to a TSDF. Do not include in your determination any waste materials sent to a TSDF during a compliance period if you have already included them in the amount collected and stored during that compliance period or a previous compliance period.

(iii) Determine the total mass of organic HAP contained in the waste materials specified in paragraph (e)(4)(ii) of this section.

(iv) You must document your methodology to determine the amount of waste materials and the total mass of organic HAP they contain, as required in § 63.4130(h).

(v) To the extent that waste manifests include this information, they may be used as part of the documentation of the amount of waste materials and mass of organic HAP contained in them.

(f) *Calculate the total volume of coating solids used during the compliance period.* Determine the total volume of coating solids used, liters, which is the combined volume of coating solids for all of the coatings used during the compliance period, using Equation 2 of this section.

$$V_{st} = \sum_{i=1}^{m} \left(Vol_{c,i}\right)\left(V_{s,i}\right) \qquad \text{(Eq. 2)}$$

Where:

V_{st} = total volume of coating solids used during the compliance period, liters.

$Vol_{c,i}$ = total volume of coating, i, used during the compliance period, liters.

$V_{s,i}$ = volume fraction of coating solids for coating, i, liters solids per liter coating, determined according to § 63.4141(b).

m = number of coatings used during the compliance period.

(g) Calculate the organic HAP emission rate, kg organic HAP per liter coating solids used, using Equation 3 of this section:

$$H_{avg} = \frac{H_e}{V_{st}} \qquad \text{(Eq. 3)}$$

Where:

H_{avg} = organic HAP emission rate for the compliance period, kg organic HAP per liter coating solids.

H_e = total mass organic HAP emissions from all materials used during the compliance period, kg, as calculated by Equation 1 of this section.

V_{st} = total volume coating solids used during the compliance period, liters, as calculated by Equation 2 of this section.

(h) The organic HAP emission rate for the initial compliance period must be less than or equal to the applicable emission limit in § 63.4090. You must keep all records as required by §§ 63.4130 and 63.4131. As part of the Notification of Compliance Status required by § 63.4110, you must identify the coating operation(s) for which you used the emission rate without add-on controls option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in § 63.4090.

§ 63.4152 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance, the organic HAP emission rate for each compliance period, determined according to § 63.4151(a) through (g), must be less than or equal to the applicable emission limit in § 63.4090. Each month following the initial compliance period described in § 63.4150 is a compliance period.

(b) If the organic HAP emission rate for any compliance period exceeded the applicable emission limit in § 63.4090, this is a deviation from the emission limitations for that compliance period and must be reported as specified in §§ 63.4110(b)(6) and 63.4120(e).

(c) As part of each semiannual compliance report required by § 63.4120, you must submit a statement that you were in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in § 63.4090.

(d) You must maintain records as specified in §§ 63.4130 and 63.4131.

Compliance Requirements for the Emission Rate With Add-On Controls Option

§ 63.4160 By what date must I conduct performance tests and other initial compliance demonstrations?

(a) *Existing affected sources.* For an existing affected source, you must meet the requirements of paragraphs (a)(1) through (3) of this section.

(1) All emission capture systems, add-on control devices, and CPMS you use to demonstrate compliance must be installed and operating no later than the applicable compliance date specified in § 63.4183. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.4161(h), you must conduct a performance test of each capture system and add-on control device according to the procedures in §§ 63.4164, 63.4165, and 63.4166, and establish the operating limits required by § 63.4092 no later than the compliance date specified in § 63.4083. For a solvent recovery system for which you conduct liquid-liquid material balances according to § 63.4161(h), you must initiate the first material balance no later than the compliance date specified in § 63.4083.

(2) You must develop and begin implementing the work practice plan required by § 63.4093 no later than the compliance date specified in § 63.4083.

(3) You must complete the compliance demonstration for the initial compliance period according to the requirements of § 63.4161. The initial compliance period begins on the applicable compliance date specified in § 63.4083 and ends on the last day of the first full month after the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next month. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§ 63.4164, 63.4165, and 63.4166; results of liquid-liquid material balances conducted according to § 63.4161(h); calculations according to § 63.4161 and supporting documentation showing that, during the initial compliance period, the organic HAP emission rate was equal to or less than the emission limit in § 63.4090(a); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.4168; and documentation of whether you developed and implemented the work practice plan required by § 63.4093.

(b) *New and reconstructed affected sources.* For a new or reconstructed affected source, you must meet the requirements of paragraphs (b)(1) through (4) this section.

(1) All emission capture systems, add-on control devices, and CPMS you use to demonstrate compliance must be installed and operating no later than the applicable compliance date specified in § 63.4183. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.4161(h), you must conduct a performance test of each capture system and add-on control device according to the procedures in §§ 63.4164, 63.4165, and 63.4166, and establish the operating limits required by § 63.4092 no later than 180 days after the applicable compliance date specified in § 63.4183. For a solvent recovery system for which you conduct liquid-liquid material balances according to § 63.4161(h), you must initiate the first material balance no later than 180 days after the applicable compliance date specified in § 63.4183.

(2) You must develop and begin implementing the work practice plan required by § 63.4093 no later than the compliance date specified in § 63.4083.

(3) You must complete the compliance demonstration for the initial compliance period according to the requirements of § 63.4161. The initial compliance period begins on the applicable compliance date specified in § 63.4083 and ends on the last day of the first full month after the compliance date, or the date you conduct the performance tests of the emission capture systems and add-on control devices, or initiate the first liquid-liquid material balance for a solvent recovery system; whichever is later. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§ 63.4164, 63.4165, and 63.4166; results of liquid-liquid material balances conducted according to § 63.4161(h); calculations according to § 63.4161 and supporting documentation showing that, during the initial compliance period, the organic HAP emission rate was equal to or less than the emission limit in § 63.4090(b); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.4168; and documentation of whether you developed and implemented the work practice plan required by § 63.4093.

(4) You do not need to comply with the operating limits for the emission capture system and add-on control device required by § 63.4092 until after you have completed the performance tests specified in paragraph (b)(1) of this section. Instead, you must maintain a log detailing the operation and maintenance of the emission capture system, add-on control device, and continuous parameter monitors during the period between the compliance date and the performance test. You must begin complying with the operating limits for your affected source on the date you complete the performance tests specified in paragraph (b)(1) of this section. This requirement does not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.4161(h).

§ 63.4161 How do I demonstrate initial compliance?

You may use the emission rate with add-on controls option for any coating operation, for any group of coating operations in the affected source, or for all of the coating operations in the affected source. You may include both controlled and uncontrolled coating operations in a group for which you use this option. You must use either the compliant material option or the emission rate without add-on controls option for any coating operation(s) in the affected source for which you do not use this option. To demonstrate initial compliance, the coating operation(s) for which you use the emission rate with add-on controls option must meet the applicable emission limit in § 63.4090 and the work practice standards required in § 63.4093; and each controlled coating operation must meet the operating limits required in § 63.4092. You must meet all the requirements of this section to demonstrate initial compliance with the emission limitations. When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate without add-on controls option. You do not need to redetermine the mass of organic HAP in coatings, thinners, or cleaning materials that have been reclaimed onsite and reused in the coating operation(s) for which you use the emission rate with add-on controls option.

(a) Except as provided in § 63.4160(b)(4) and except for solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements of § 63.4161(h), you must establish and demonstrate continuous compliance

during the initial compliance period with the operating limits required by § 63.4092, using the procedures specified in §§ 63.4167 and 63.4168.

(b) You must develop, implement, and document your implementation of the work practice plan required by § 63.4093 during the initial compliance period as specified in § 63.4130.

(c) You must follow the procedures in paragraphs (d) through (l) of this section to demonstrate compliance with the applicable emission limit in § 63.4090.

(d) *Determine the mass fraction of organic HAP, density, volume used, and volume fraction of coating solids.* Follow the procedures specified in § 63.4151(a) through (d) to determine the mass fraction of organic HAP, density, and volume of each coating, thinner, and cleaning material used during the compliance period, and the volume fraction of coating solids for each coating used during the compliance period.

(e) *Calculate the total mass of organic HAP emissions before add-on controls.* Using Equation 1 of § 63.4151, calculate the total mass of organic HAP emissions before add-on controls from all coatings, thinners, and cleaning materials used during the compliance period in the coating operation or group of coating operations for which you use the emission rate with add-on controls option.

(f) *Calculate the organic HAP emission reduction for each controlled coating operation.* Determine the mass of organic HAP emissions reduced for each controlled coating operation during the compliance period. The emissions reduction determination quantifies the total organic HAP emissions that pass through the emission capture system and are destroyed or removed by the add-on control device. Use the procedures in paragraph (g) of this section to calculate the mass of organic HAP emissions reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. For each controlled coating operation using a solvent recovery system for which you conduct a liquid-liquid material balance, use the procedures in paragraph (h) of this section to calculate the organic HAP emissions reduction.

(g) *Calculate the organic HAP emissions reduction for controlled coating operations not using liquid-liquid material balance.* For each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances, calculate organic HAP emissions reduction, using Equation 1 of this section, by applying the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings, thinners, and cleaning materials that are used in the coating operation served by the emission capture system and add-on control device during the compliance period. For any period of time a deviation specified in § 63.4163(c) or (d) occurs in the controlled coating operation, including a deviation during a period of startup, shutdown, or malfunction, you must assume zero efficiency for the emission capture system and add-on control device. For the purposes of completing the compliance calculations, you must treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation. You must not include those materials in the calculations of organic HAP emissions reduction in Equation 1 of this section.

$$H_c = \left(A_I + B_I + C_I\right)\left(\frac{CE}{100} \times \frac{DRE}{100}\right) \qquad \text{(Eq. 1)}$$

Where:

H_C = mass of organic HAP emissions reduction for the controlled coating operation during the compliance period, kg.

A_I = total mass of organic HAP in the coatings used in the controlled coating operation, kg, as calculated in Equation 1A of this section.

B_I = total mass of organic HAP in the thinners used in the controlled coating operation, kg, as calculated in Equation 1B of this section.

C_I = total mass of organic HAP in the cleaning materials used in the controlled coating operation during the compliance period, kg, as calculated in Equation 1C of this section.

CE = capture efficiency of the emission capture system vented to the add-on control device, percent. Use the test methods and procedures specified in §§ 63.4164 and 63.4165 to measure and record capture efficiency.

DRE = organic HAP destruction or removal efficiency of the add-on control device, percent. Use the test methods and procedures in §§ 63.4164 and 63.4166 to measure and record the organic HAP destruction or removal efficiency.

(1) Calculate the kg of organic HAP in the coatings used in the controlled coating operation, using Equation 1A of this section:

$$A_I = \sum_{i=1}^{m}\left(Vol_{c,i}\right)\left(D_{c,i}\right)\left(W_{c,i}\right) \qquad \text{(Eq. 1A)}$$

Where:

A_I = mass of organic HAP in the coatings used in the controlled coating operation, kg.

$Vol_{c,i}$ = total volume of coating, i, used, liters.

$D_{c,i}$ = density of coating, i, kg per liter.

$W_{c,i}$ = mass fraction of organic HAP in coating, i, kg per kg.

m = number of different coatings used.

(2) Calculate the kg of organic HAP in the thinners used in the controlled coating operation, using Equation 1B of this section:

$$B_I = \sum_{j=1}^{n}\left(Vol_{t,j}\right)\left(D_{t,j}\right)\left(W_{t,j}\right) \qquad \text{(Eq. 1B)}$$

Where:

B_I = mass of organic HAP in the thinners used in the controlled coating operation, kg.

$Vol_{t,j}$ = total volume of thinner, j, used, liters.

$D_{t,j}$ = density of thinner, j, kg per liter.

$W_{t,j}$ = mass fraction of organic HAP in thinner, j, kg per kg.

n = number of different thinners used.

(3) Calculate the kg of organic HAP in the cleaning materials used in the controlled coating operation during the compliance period, using Equation 1C of this section:

$$C_I = \sum_{k=1}^{p}\left(Vol_{s,k}\right)\left(D_{s,k}\right)\left(W_{s,k}\right) \qquad \text{(Eq. 1C)}$$

Where:

C_I = mass of organic HAP in the cleaning materials used in the controlled coating operation, kg.

$Vol_{s,k}$ = total volume of cleaning material, k, used, liters.

$D_{s,k}$ = density of cleaning material, k, kg per liter.
$W_{s,k}$ = mass fraction of organic HAP in cleaning material, k, kg per kg.
p = number of different cleaning materials used.

(h) *Calculate the organic HAP emissions reduction for controlled coating operations using liquid-liquid material balance.* For each controlled coating operation using a solvent recovery system for which you conduct liquid-liquid material balances, calculate the organic HAP emissions reduction by applying the volatile organic matter collection and recovery efficiency to the mass of organic HAP contained in the coatings, thinners, and cleaning materials that are used in the coating operation controlled by the solvent recovery system during the compliance period. Perform a liquid-liquid material balance for each compliance period as specified in paragraphs (h)(1) through (6) of this section. Calculate the mass of organic HAP emission reduction by the solvent recovery system as specified in paragraph (h)(7) of this section.

(1) For each solvent recovery system, install, calibrate, maintain, and operate according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile organic matter recovered by the solvent recovery system each compliance period. The device must be initially certified by the manufacturer to be accurate to within ±2.0 percent of the mass of volatile organic matter recovered.

(2) For each solvent recovery system, determine the mass of volatile organic matter recovered for the compliance period, kg, based on measurement with the device required in paragraph (h)(1) of this section.

(3) Determine the mass fraction of volatile organic matter for each coating used in the coating operation controlled by the solvent recovery system during the compliance period, kg volatile organic matter per kg coating. You may determine the volatile organic matter mass fraction using Method 24 of 40 CFR part 60, appendix A, or an EPA approved alternative method, or you may use information provided by the manufacturer or supplier of the coating. In the event of any inconsistency between information provided by the manufacturer or supplier and the results of Method 24 of 40 CFR part 60, appendix A, or an approved alternative method, the test method results will govern.

(4) Determine the density of each coating, thinner, and cleaning material used in the coating operation controlled by the solvent recovery system during the compliance period, kg per liter, according to § 63.4151(c).

(5) Measure the volume of each coating, thinner, and cleaning material used in the coating operation controlled by the solvent recovery system during the compliance period, liters.

(6) Calculate the solvent recovery system's volatile organic matter collection and recovery efficiency, using Equation 2 of this section:

$$R_v = 100 \frac{M_{VR}}{\sum_{i=1}^{m} Vol_i D_i C_{Vi} + \sum_{j=1}^{n} Vol_j D_j + \sum_{k=1}^{p} Vol_k D_k} \quad \text{(Eq. 2)}$$

Where:
R_V = volatile organic matter collection and recovery efficiency of the solvent recovery system during the compliance period, percent.
M_{VR} = mass of volatile organic matter recovered by the solvent recovery system during the compliance period, kg.
Vol_i = volume of coating, i, used in the coating operation controlled by the solvent recovery system during the compliance period, liters.
D_i = density of coating, i, kg coating per liter coating.
C_{Vi} = mass fraction of volatile organic matter for coating, i, kg volatile organic matter per kg coating.
Vol_j = volume of thinner, j, used in the coating operation controlled by the solvent recovery system during the compliance period, liters.
D_j = density of thinner, j, kg thinner per liter thinner.
Vol_k = volume of cleaning material, k, used in the coating operation controlled by the solvent recovery system during the compliance period, liters.
D_k = density of cleaning material, k, kg cleaning material per liter cleaning material
m = number of different coatings used in the coating operation controlled by the solvent recovery system during the compliance period.
n = number of different thinners used in the coating operation controlled by the solvent recovery system during the compliance period.
p = number of different cleaning materials used in the coating operation controlled by the solvent recovery system during the compliance period.

(7) Calculate the mass of organic HAP emissions reduction for the coating operation controlled by the solvent recovery system during the compliance period, using Equation 3 of this section:

$$H_{CSR} = (A_I + B_I + C_I)\left(\frac{R_V}{100}\right) \quad \text{(Eq. 3)}$$

Where:
H_{CSR} = mass of organic HAP emissions reduction for the coating operation controlled by the solvent recovery system using a liquid-liquid material balance during the compliance period, kg.
A_I = total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 1A of this section.
B_I = total mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 1B of this section.
C_I = total mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 1C of this section.
R_V = volatile organic matter collection and recovery efficiency of the solvent recovery system, percent, from Equation 2 of this section.

(i) [Reserved]

(j) *Calculate the total volume of coating solids used.* Determine the total volume of coating solids used, liters, which is the combined volume of coating solids for all the coatings used during the compliance period, using Equation 2 of § 63.4151.

(k) *Calculate the organic HAP emission rate.* Determine the organic HAP emission rate to the atmosphere, kg organic HAP per liter coating solids used during the compliance period, using Equation 4 of this section.

$$H_{HAP} = \frac{H_e - \sum_{i=1}^{q}\left(H_{C,i}\right) - \sum_{j=1}^{r}\left(H_{CSR,j}\right)}{V_{st}} \qquad \text{(Eq. 4)}$$

Where:

H_{HAP} = organic HAP emission rate to the atmosphere during the compliance period, kg organic HAP per liter coating solids used.

H_e = total mass of organic HAP emissions before add-on controls from all the coatings, thinners, and cleaning materials used during the compliance period, kg, determined according to paragraph (e) of this section.

$H_{C,i}$ = total mass of organic HAP emissions reduction for controlled coating operation, i, during the compliance period, kg, from Equation 1 of this section.

$H_{CSR,j}$ = total mass of organic HAP emissions reduction for controlled coating operation, j, during the compliance period, kg, from Equation 3 of this section.

V_{st} = total volume of coating solids used during the compliance period, liters, from Equation 2 of § 63.4151.

q = number of controlled coating operations except those controlled with a solvent recovery system.

r = number of coating operations controlled with a solvent recovery system.

(l) To demonstrate initial compliance with the emission limit, calculated using Equation 4 of this section, must be less than or equal to the applicable emission limit in § 63.4090. You must keep all records as required by §§ 63.4130 and 63.4131. As part of the Notification of Compliance Status required by § 63.4110, you must identify the coating operation(s) for which you used the emission rate with add-on controls option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in § 63.4090, and you achieved the operating limits required by § 63.4092 and the work practice standards required by § 63.4093.

§ 63.4162 [Reserved]

§ 63.4163 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance with the applicable emission limit in § 63.4090, the organic HAP emission rate for each compliance period determined according to the procedures in § 63.4161 must be equal to or less than the applicable emission limit in § 63.4090. Each month following the initial compliance period described in § 63.4160 is a compliance period.

(b) If the organic HAP emission rate for any compliance period exceeded the applicable emission limit in § 63.4090, this is a deviation from the emission limitation for that compliance period and must be reported as specified in §§ 63.4110(b)(6) and 63.4120(g).

(c) You must demonstrate continuous compliance with each operating limit required by § 63.4092 that applies to you as specified in Table 1 to this subpart.

(1) If an operating parameter is out of the allowed range specified in Table 1 to this subpart, this is a deviation from the operating limit that must be reported as specified in §§ 63.4110(b)(6) and 63.4120(g).

(2) If an operating parameter deviates from the operating limit specified in Table 1 to this subpart, then you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation. For the purposes of completing the compliance calculations specified in § 63.4161, you must treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation. You must not include those materials in the calculation of organic HAP emissions reductions in Equation 1 of § 63.4161.

(d) You must meet the requirements for bypass lines in § 63.4168(b). If any bypass line is opened and emissions are diverted to the atmosphere when the coating operation is running, this is a deviation that must be reported as specified in §§ 63.4110(b)(6) and 63.4120(g). For the purposes of completing the compliance calculations specified in § 63.4161, you must treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation. You must not include those materials in the calculation of organic HAP emissions reductions in Equation 1 of § 63.4161.

(e) You must demonstrate continuous compliance with the work practice standards in § 63.4093. If you did not develop a work practice plan, or you did not implement the plan, or you did not keep the records required by § 63.4130(k)(9), this is a deviation from the work practice standards that must be reported as specified in §§ 63.4110(b)(6) and 63.4120(g).

(f) As part of each semiannual compliance report required in § 63.4120, you must submit a statement that you were in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in § 63.4090, and you achieved the operating limits required by § 63.4092 and the work practice standards required by § 63.4093 during each compliance period.

(g) During periods of startup, shutdown, and malfunction of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency, you must operate in accordance with the SSMP required by § 63.4100(d).

(h) Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the SSMP. The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations according to the provisions in § 63.6(e).

(i) [Reserved]

(j) You must maintain records as specified in §§ 63.4130 and 63.4131.

§§ 63.4130 and 63.4131.

§ 63.4164 What are the general requirements for performance tests?

(a) You must conduct each performance test required by § 63.4160 according to the requirements in § 63.7(e)(1) and under the conditions in this section unless you obtain a waiver of the performance test according to the provisions in § 63.7(h).

(1) *Representative coating operation operating conditions.* You must conduct the performance test under

representative operating conditions for the coating operation. Operations during periods of startup, shutdown, or malfunction and periods of nonoperation do not constitute representative conditions. You must record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation.

(2) *Representative emission capture system and add-on control device operating conditions.* You must conduct the performance test when the emission capture system and add-on control device are operating at a representative flow rate, and the add-on control device is operating at a representative inlet concentration. You must record information that is necessary to document emission capture system and add-on control device operating conditions during the test and explain why the conditions represent normal operation.

(b) You must conduct each performance test of an emission capture system according to the requirements in § 63.4165 and of an add-on control device according to the requirements in § 63.4166.

(c) The performance test to determine add-on control device organic HAP destruction or removal efficiency must consist of three runs as specified in § 63.7(e)(3) and each run must last at least 1 hour.

§ 63.4165 How do I determine the emission capture system efficiency?

You must use the procedures and test methods in this section to determine capture efficiency as part of the performance test required by § 63.4160.

(a) You may assume the capture system efficiency is 100 percent if both of the conditions in paragraphs (a)(1) and (2) of this section are met:

(1) The capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and directs all the exhaust gases from the enclosure to an add-on control device.

(2) All coatings, thinners, and cleaning materials used in the coating operation are applied within the capture system; coating solvent flash-off and coating, curing, and drying occurs within the capture system and the removal or evaporation of cleaning materials from the surfaces they are applied to occurs within the capture system. For example, this criterion is not met if parts enter the open shop environment when being moved between a spray booth and a curing oven.

(b) If the capture system does not meet both of the criteria in paragraphs (a)(1) and (2) of this section, then you must use one of the three protocols described in paragraphs (c), (d), and (e) of this section to measure capture efficiency. The capture efficiency measurements use TVH capture efficiency as a surrogate for organic HAP capture efficiency. For the protocols in paragraphs (c) and (d) of this section, the capture efficiency measurement must consist of three test runs. Each test run must be at least 3 hours duration or the length of a production run, whichever is longer, up to 8 hours. For the purposes of this test, a production run means the time required for a single part to go from the beginning to the end of production which includes surface preparation activities and drying or curing time.

(c) *Liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* The liquid-to-uncaptured-gas protocol compares the mass of liquid TVH in materials used in the coating operation, to the mass of TVH emissions not captured by the emission capture system. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (c)(1) through (6) of this section to measure emission capture system efficiency using the liquid-to-uncaptured-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions for routing to an add-on control device, such as the entrance and exit areas of an oven or spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204A or 204F of appendix M to 40 CFR part 51 to determine the mass fraction of TVH liquid input from each coating, thinner, and cleaning material used in the coating operation during each capture efficiency test run. To make the determination, substitute TVH for each occurrence of the term VOC in the methods.

(3) Use Equation 1 of this section to calculate the total mass of TVH liquid input from all the coatings, thinners, and cleaning materials used in the coating operation during each capture efficiency test run.

$$TVH_{used} = \sum_{i=1}^{n} (TVH_i)(Vol_i)(D_i) \qquad \text{(Eq. 1)}$$

Where:

TVH_{used} = total mass of TVH liquid input from all coatings, thinners, and cleaning materials used in the coating operation during the capture efficiency test run, kg.

TVH_i = mass fraction of TVH in coating, thinner, or cleaning material, i, that is used in the coating operation during the capture efficiency test run, kg TVH per kg material.

Vol_i = total volume of coating, thinner, or cleaning material, i, used in the coating operation during the capture efficiency test run, liters.

D_i = density of coating, thinner, or cleaning material, i, kg material per liter material.

n = number of different coatings, thinners, and cleaning materials used in the coating operation during the capture efficiency test run.

(4) Use Method 204D or E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system; they are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D if the enclosure is a temporary total enclosure.

(ii) Use Method 204E if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined must be shut down, but all fans and blowers must be operating normally.

(5) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system, using Equation 2 of this section:

$$CE = \frac{\left(TVH_{used} - TVH_{uncaptured}\right)}{TVH_{used}} \times 100 \qquad \text{(Eq. 2)}$$

Where:

CE = capture efficiency of the emission capture system vented to the add-on control device, percent.

TVH_{used} = total mass of TVH liquid input used in the coating operation during the capture efficiency test run, kg.

$TVH_{uncaptured}$ = total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.

(6) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(d) *Gas-to-gas protocol using a temporary total enclosure or a building enclosure.* The gas-to-gas protocol compares the mass of TVH emissions captured by the emission capture system to the mass of TVH emissions not captured. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (d)(1) through (5) of this section to measure emission capture system efficiency using the gas-to-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners, and cleaning materials are applied and all areas where emissions from these applied coatings and materials subsequently occur such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions generated by the coating operation for routing to an add-on control device, such as the entrance and exit areas of an oven or a spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204B or 204C of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions captured by the emission capture system during each capture efficiency test run as measured at the inlet to the add-on control device. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) The sampling points for the Method 204B or 204C measurement must be upstream from the add-on control device and must represent total emissions routed from the capture system and entering the add-on control device.

(ii) If multiple emission streams from the capture system enter the add-on control device without a single common duct, then the emissions entering the add-on control device must be simultaneously measured in each duct, and the total emissions entering the add-on control device must be determined.

(3) Use Method 204D or 204E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system; they are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D if the enclosure is a temporary total enclosure.

(ii) Use Method 204E if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure other than the coating operation for which capture efficiency is being determined must be shut down, but all fans and blowers must be operating normally.

(4) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system, using Equation 3 of this section:

$$CE = \frac{TVH_{captured}}{\left(TVH_{captured} + TVH_{uncaptured}\right)} \times 100 \qquad \text{(Eq. 3)}$$

Where:

CE = capture efficiency of the emission capture system vented to the add-on control device, percent.

$TVH_{captured}$ = total mass of TVH captured by the emission capture system as measured at the inlet to the add-on control device during the emission capture efficiency test run, kg.

$TVH_{uncaptured}$ = total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.

(5) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(e) *Alternative capture efficiency protocol.* As an alternative to the procedures specified in paragraphs (c) and (d) of this section, you may determine capture efficiency using any other capture efficiency protocol and test methods that satisfy the criteria of either the DQO or LCL approach as described in appendix A to subpart KK of this part.

§ 63.4166 How do I determine the add-on control device emission destruction or removal efficiency?

(a) For all types of add-on control devices, use the test methods as specified in paragraphs (a)(1) through (5) of this section.

(1) Use Method 1 or 1A of appendix A to 40 CFR part 60, as appropriate, to select sampling sites and velocity traverse points.

(2) Use Method 2, 2A, 2C, 2D, 2F, or 2G of appendix A to 40 CFR part 60, as appropriate, to measure gas volumetric flow rate.

(3) Use Method 3, 3A, or 3B of appendix A to 40 CFR part 60, as appropriate, for gas analysis to determine dry molecular weight. You may also use as an alternative to Method 3B, the manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas in ANSI/ASME, PTC 19.10–1981, ''Flue

and Exhaust Gas Analyses'' (incorporated by reference, see § 63.14).

(4) Use Method 4 of appendix A to 40 CFR part 60 to determine stack gas moisture.

(5) Methods for determining gas volumetric flow rate, dry molecular weight, and stack gas moisture must be performed, as applicable, during each test run.

(b) Measure total gaseous organic mass emissions as carbon at the inlet and outlet of the add-on control device simultaneously, using either Method 25 or 25A of appendix A to 40 CFR part 60, as specified in paragraphs (b)(1) through (3) of this section. You must use the same method for both the inlet and outlet measurements.

(1) Use Method 25 if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be more than 50 parts per million (ppm) at the control device outlet.

(2) Use Method 25A if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be 50 ppm or less at the control device outlet.

(3) Use Method 25A if the add-on control device is not an oxidizer.

(c) If two or more add-on control devices are used for the same emission stream, then you must measure emissions at the outlet of each device. For example, if one add-on control device is a concentrator with an outlet for the high-volume, dilute stream that has been treated by the concentrator, and a second add-on control device is an oxidizer with an outlet for the low-volume, concentrated stream that is treated with the oxidizer, you must measure emissions at the outlet of the oxidizer and the high-volume dilute stream outlet of the concentrator.

(d) For each test run, determine the total gaseous organic emissions mass flow rates for the inlet and the outlet of the add-on control device, using Equation 1 of this section. If there is more than one inlet or outlet to the add-on control device, you must calculate the total gaseous organic mass flow rate using Equation 1 of this section for each inlet and each outlet and then total all of the inlet emissions and total all of the outlet emissions.

$$M_f = Q_{sd} C_c [12][0.0416]\left[10^{-6}\right] \quad \text{(Eq. 1)}$$

Where:

M_f = total gaseous organic emissions mass flow rate, kg/per hour (h).

C_c = concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, parts per million by volume (ppmv), dry basis.

Q_{sd} = volumetric flow rate of gases entering or exiting the add-on control device, as determined by Method 2, 2A, 2C, 2D, 2F, or 2G, dry standard cubic meters/hour (dscm/h).

0.0416 = conversion factor for molar volume, kg-moles per cubic meter (mol/m^3) (@ 293 Kelvin (K) and 760 millimeters of mercury (mm Hg)).

(e) For each test run, determine the add-on control device organic emissions destruction or removal efficiency, using Equation 2 of this section.

$$DRE = \frac{M_{fi} - M_{fo}}{M_{fi}} \times 100 \quad \text{(Eq. 2)}$$

Where:

DRE = add-on control device organic emissions destruction or removal efficiency, percent.

M_{fi} = total gaseous organic emissions mass flow rate at the inlet(s) to the add-on control device, using Equation 1 of this section, kg/h.

M_{fo} = total gaseous organic emissions mass flow rate at the outlet(s) of the add-on control device, using Equation 1 of this section, kg/h.

(f) Determine the emission destruction or removal efficiency of the add-on control device as the average of the efficiencies determined in the three test runs and calculated in Equation 2 of this section.

§ 63.4167 How do I establish the emission capture system and add-on control device operating limits during the performance test?

During the performance test required by § 63.4160 and described in §§ 63.4164, 63.4165, and 63.4166, you must establish the operating limits required by § 63.4092 according to this section unless you have received approval for alternative monitoring and operating limits under § 63.8(f) as specified in § 63.4092.

(a) *Thermal oxidizers.* If your add-on control device is a thermal oxidizer, establish the operating limits according to paragraphs (a)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.

(2) Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature is the minimum operating limit for your thermal oxidizer.

(b) *Catalytic oxidizers.* If your add-on control device is a catalytic oxidizer, establish the operating limits according to either paragraphs (b)(1) and (2) or paragraphs (b)(3) and (4) of this section.

(1) During the performance test, you must monitor and record the temperature just before the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. These are the minimum operating limits for your catalytic oxidizer.

(3) As an alternative to monitoring the temperature difference across the catalyst bed, you may monitor the temperature just before the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in paragraph (b)(4) of this section. During the performance test, you must monitor and record the temperature just before the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer.

(4) You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s) for which you elect to monitor according to paragraph (b)(3) of this section. The plan must address, at a minimum, the elements specified in paragraphs (b)(4)(i) through (iii) of this section.

(i) Annual sampling and analysis of the catalyst activity (*i.e.,* conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures.

(ii) Monthly inspection of the oxidizer system including the burner assembly and fuel supply lines for problems and, as necessary, adjusting the equipment to assure proper air-to-fuel mixtures.

(iii) Annual internal and monthly external visual inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found, you must take corrective action consistent with the manufacturer's recommendations and conduct a new performance test to determine

destruction efficiency according to § 63.4166.

(c) *Carbon adsorbers.* If your add-on control device is a carbon absorber, establish the operating limits according to paragraphs (c)(1) and (2) of this section.

(1) You must monitor and record the total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each regeneration cycle and the carbon bed temperature after each carbon bed regeneration and cooling cycle for the regeneration cycle either immediately preceding or immediately following the performance test.

(2) The operating limits for your carbon absorber are the minimum total desorbing gas mass flow recorded during the regeneration cycle and the maximum carbon bed temperature recorded after the cooling cycle.

(d) *Condensers.* If your add-on control device is a condenser, establish the operating limits according to paragraphs (d)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the condenser outlet (product side) gas temperature at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average condenser outlet (product side) gas temperature maintained during the performance test. This average condenser outlet gas temperature is the maximum operating limit for your condenser.

(e) *Concentrators.* If your add-on control device includes a concentrator, you must establish operating limits for the concentrator according to paragraphs (e)(1) through (4) of this section.

(1) During the performance test, you must monitor and record the desorption concentrate stream gas temperature at least once every 15 minutes during each of the three runs of the performance test.

(2) Use the data collected during the performance test to calculate and record the average temperature. This is the minimum operating limit for the desorption concentrate gas stream temperature.

(3) During the performance test, you must monitor and record the pressure drop of the dilute stream across the concentrator at least once every 15 minutes during each of the three runs of the performance test.

(4) Use the data collected during the performance test to calculate and record the average pressure drop. This is the maximum operating limit for the dilute stream across the concentrator.

(f) *Emission capture system.* For each capture device that is not part of a PTE that meets the criteria of § 63.4165(a), establish an operating limit for either the gas volumetric flow rate or duct static pressure as specified in paragraphs (f)(1) and (2) of this section. The operating limit for a PTE is specified in Table 1 to this subpart.

(1) During the capture efficiency determination required by § 63.4160 and described in §§ 63.4164 and 63.4165, you must monitor and record either the gas volumetric flow rate or the duct static pressure for each separate capture device in your emission capture system at least once every 15 minutes during each of the three test runs at a point in the duct between the capture device and the add-on control device inlet.

(2) Calculate and record the average gas volumetric flow rate or duct static pressure for the three test runs for each capture device. This average gas volumetric flow rate or duct static pressure is the minimum operating limit for that specific capture device.

§ 63.4168 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?

(a) *General.* You must install, operate, and maintain each CPMS specified in paragraphs (c), (e), (f), and (g) of this section according to paragraphs (a)(1) through (6) of this section. You must install, operate, and maintain each CPMS specified in paragraphs (b) and (d) of this section according to paragraphs (a)(3) through (5) of this section.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four equally spaced successive cycles of CPMS operation in 1 hour.

(2) You must determine the average of all recorded readings for each successive 3-hour period of the emission capture system and add-on control device operation except as specified in paragraph (a)(6) of this section.

(3) You must record the results of each inspection, calibration, and validation check of the CPMS.

(4) You must maintain the CPMS at all times and have available necessary parts for routine repairs of the monitoring equipment.

(5) You must operate the CPMS and collect emission capture system and add-on control device parameter data at all times that a controlled coating operation is operating except during monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, if applicable, calibration checks and required zero and span adjustments).

(6) You must not use emission capture system or add-on control device parameter data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities when calculating data averages. You must use all the data collected during all other periods in calculating the data averages for determining compliance with the emission capture system and add-on control device operating limits.

(7) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the CPMS to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Except for periods of required quality assurance or control activities, any period during which the CPMS fails to operate and record data continuously as required by paragraph (a)(1) of this section, or generates data that cannot be included in calculating averages as specified in paragraph (a)(6) of this section, is a deviation from the monitoring requirements.

(b) *Capture system bypass line.* You must comply with the requirements of paragraphs (a)(3) through (5) and (b)(1) and (2) of this section for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

(1) You must monitor or secure the valve or closure mechanism controlling the bypass line in a nondiverting position in such a way that the valve or closure mechanism cannot be opened without creating a record that the valve was opened. The method used to monitor or secure the valve or closure mechanism must meet one of the requirements specified in paragraphs (b)(1)(i) through (iv) of this section.

(i) *Flow control position indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. The time of occurrence and flow control position must be recorded, as well as every time the flow direction is changed. The flow control position indicator must be installed at the entrance to any bypass line that could divert the emissions away from the add-on control device to the atmosphere.

(ii) *Car-seal or lock-and-key valve closures.* Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. You

must visually inspect the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position and the emissions are not diverted away from the add-on control device to the atmosphere.

(iii) *Valve closure monitoring.* Ensure that any bypass line valve is in the closed (non-diverting) position through monitoring of valve position at least once every 15 minutes. You must inspect the monitoring system at least once every month to verify that the monitor will indicate valve position.

(iv) *Automatic shutdown system.* Use an automatic shutdown system in which the coating operation is stopped when flow is diverted by the bypass line away from the add-on control device to the atmosphere when the coating operation is running. You must inspect the automatic shutdown system at least once every month to verify that it will detect diversions of flow and shutdown the coating operation.

(2) If any bypass line is opened, you must include a description of why the bypass line was opened and the length of time it remained open in the semiannual compliance reports required in § 63.4120.

(c) *Thermal oxidizers and catalytic oxidizers.* If you are using a thermal oxidizer or catalytic oxidizer as an add-on control device (including those used with concentrators or with carbon adsorbers to treat desorbed concentrate streams), you must comply with the requirements in paragraphs (a) and (c)(1) through (3) of this section:

(1) For a thermal oxidizer, install a gas temperature monitor in the firebox of the thermal oxidizer or in the duct immediately downstream of the firebox before any substantial heat exchange occurs.

(2) For a catalytic oxidizer, install a gas temperature monitor in the gas stream immediately before the catalyst bed, and if you establish operating limits according to § 63.6167(b)(1) and (2), also install a gas temperature monitor in the gas stream immediately after the catalyst bed.

(3) For each gas temperature monitoring device, you must comply with the requirements in paragraphs (c)(3)(i) through (vii) of this section.

(i) Locate the temperature sensor in a position that provides a representative temperature.

(ii) Use a temperature sensor with a measurement sensitivity of 4 degrees Fahrenheit or 0.75 percent of the temperature value, whichever is larger.

(iii) Shield the temperature sensor system from electromagnetic interference and chemical contaminants.

(iv) If a gas temperature chart recorder is used, it must have a measurement sensitivity in the minor division of at least 20 degrees Fahrenheit.

(v) Perform an electronic calibration at least semiannually according to the procedures in the manufacturer's owners manual. Following the electronic calibration, you must conduct a temperature sensor validation check in which a second or redundant temperature sensor placed nearby the process temperature sensor must yield a reading within 30 degrees Fahrenheit of the process temperature sensor's reading.

(vi) Any time the sensor exceeds the manufacturer's specified maximum operating temperature range, either conduct calibration and validation checks or install a new temperature sensor.

(vii) At least monthly, inspect components for integrity and electrical connections for continuity, oxidation, and galvanic corrosion.

(d) *Carbon adsorbers.* If you are using a carbon adsorber as an add-on control device, you must monitor the total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each regeneration cycle, the carbon bed temperature after each regeneration and cooling cycle, and comply with paragraphs (a)(3) through (5) and (d)(1) and (2) of this section.

(1) The regeneration desorbing gas mass flow monitor must be an integrating device having a measurement sensitivity of plus or minus 10 percent, capable of recording the total regeneration desorbing gas mass flow for each regeneration cycle.

(2) The carbon bed temperature monitor must have a measurement sensitivity of 1 percent of the temperature recorded or 1 degree Fahrenheit, whichever is greater, and must be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.

(e) *Condensers.* If you are using a condenser, you must monitor the condenser outlet (product side) gas temperature and comply with paragraphs (a) and (e)(1) and (2) of this section.

(1) The gas temperature monitor must have a measurement sensitivity of 1 percent of the temperature recorded or 1 degree Fahrenheit, whichever is greater.

(2) The temperature monitor must provide a gas temperature record at least once every 15 minutes.

(f) *Concentrators.* If you are using a concentrator, such as a zeolite wheel or rotary carbon bed concentrator, you must comply with the requirements in paragraphs (a) and (f)(1) and (2) of this section.

(1) You must install a temperature monitor in the desorption gas stream. The temperature monitor must meet the requirements in paragraphs (a) and (c)(3) of this section.

(2) You must install a device to monitor pressure drop across the zeolite wheel or rotary carbon bed. The pressure monitoring device must meet the requirements in paragraphs (a) and (f)(2)(i) through (vii) of this section.

(i) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure.

(ii) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(iii) Use a gauge with a minimum tolerance of 0.5 inch of water or a transducer with a minimum tolerance of 1 percent of the pressure range.

(iv) Check the pressure tap daily.

(v) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(vi) Conduct calibration checks anytime the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(vii) At least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.

(g) *Emission capture systems.* The capture system monitoring system must comply with the requirements in paragraph (a) of this section and the applicable requirements in paragraphs (g)(1) and (2) of this section.

(1) For each flow measurement device, you must meet the requirements in paragraphs (a) and (g)(1)(i) through (iv) of this section.

(i) Locate a flow sensor in a position that provides a representative flow measurement in the duct from each capture device in the emission capture system to the add-on control device.

(ii) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(iii) Conduct a flow sensor calibration check at least semiannually.

(iv) At least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.

(2) For each pressure drop measurement device, you must comply with the requirements in paragraphs (a) and (g)(2)(i) through (vi) of this section.

(i) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the

pressure drop across each opening you are monitoring.

(ii) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(iii) Check pressure tap pluggage daily.

(iv) Using an inclined manometer with a measurement sensitivity of 0.0002 inch water, check gauge calibration quarterly and transducer calibration monthly.

(v) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(vi) At least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.

Other Requirements and Information

§ 63.4180 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the EPA, or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are listed in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the work practice standards in § 63.4093 under § 63.6(g).

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.4181 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in 40 CFR 63.2, the General Provisions of this part, and in this section as follows:

Add-on control device means an air pollution control device, such as a thermal oxidizer or carbon absorber, that reduces pollution in an air stream by destruction or removal before discharge to the atmosphere.

Adhesive means any chemical substance that is applied for the purpose of bonding two surfaces together.

Capture device means a hood, enclosure, room, floor sweep, or other means of containing or collecting emissions and directing those emissions into an add-on control device.

Capture efficiency or *capture system efficiency* means the portion (expressed as a percentage) of the pollutants from an emission source that is delivered to an add-on control device.

Capture system means one or more capture devices intended to collect emissions generated by a coating operation in the use of coatings and cleaning materials, both at the point of application and at subsequent points where emissions from the coatings and cleaning materials occur, such as flashoff, drying, or curing. As used in this subpart, multiple capture devices that collect emissions generated by a coating operation are considered a single capture system.

Cleaning material means a solvent used to remove contaminants and other materials such as dirt, grease, oil, and dried or wet coating (e.g., depainting) from a substrate before or after coating application or from equipment associated with a coating operation such as spray booths, spray guns, racks, tanks, and hangers. Thus, it includes cleaning materials used for substrates or equipment or both.

Coating means a material applied to a substrate for decorative, protective, or functional purposes. For the purposes of this subpart, coatings include paints, porcelain enamels, sealants, caulks, inks, adhesives, and maskants. Decorative, protective, or functional materials that consist only of protective oils, acids, bases, or any combination of these substances are not considered coatings for the purposes of this subpart.

Coating operation means equipment used to apply cleaning materials to a substrate to prepare it for coating application or to remove dried coating (surface preparation), to apply coating to a substrate (coating application) and to dry or cure the coating after application, or to clean coating operation equipment (equipment cleaning). A single coating operation may include any combination of these types of equipment but always includes at least the point at which a coating or cleaning material is applied and all subsequent points in the affected source where organic HAP emissions from that coating or cleaning material occur. There may be multiple coating operations in an affected source. Applications of coatings using hand-held, nonrefillable aerosol containers, touchup markers, or marking pens are not coating operations for the purposes of this subpart.

Coating solids means the nonvolatile portion of the coating that makes up the dry film.

Continuous parameter monitoring system means the total equipment that may be required to meet the data acquisition and availability requirements of this subpart used to sample, condition (if applicable), analyze, and provide a record of coating operation, capture system, or add-on control device parameters.

Controlled coating operation means a coating operation from which some or all of the organic HAP emissions are routed through an emission capture system and add-on control device.

Deviation means any instance in which an affected source subject to this subpart or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart including but not limited to any emission limit, or operating limit, or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limit, or operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction regardless of whether or not such failure is permitted by this subpart.

Emission limitation means an emission limit, operating limit, or work practice standard.

Enclosure means a structure that surrounds a source of emissions and captures and directs the emissions to an add-on control device.

Exempt compound means a specific compound that is not considered a VOC due to negligible photochemical reactivity. The exempt compounds are listed in 40 CFR 51.100(s).

Facility maintenance means the routine repair or refurbishing (including surface coating) of the tools, equipment, machinery, and structures that comprise the infrastructure of the facility or that are necessary for the facility to function in its intended capacity. It does not mean cleaning of equipment that is part of a large appliances coating operation.

Heat transfer coil means a tube-and-fin assembly used in large appliance

products to remove heat from a circulating fluid.

Large appliance part means a component of a large appliance product except for the wider use parts excluded under § 63.4081(d)(1).

Large appliance product means, but is not limited to, any of the following products (except as provided under § 63.4081(d)(3)) manufactured for household, recreational, institutional, commercial, or industrial use:

(1) Cooking equipment (ovens, ranges, and microwave ovens but not including toasters, counter-top grills, and similar small products);

(2) Refrigerators, freezers, and refrigerated cabinets and cases;

(3) Laundry equipment (washers, dryers, drycleaning machines, and pressing machines);

(4) Dishwashers, trash compactors, and water heaters; and

(5) HVAC units, air-conditioning (except motor vehicle) units, air-conditioning and heating combination units, comfort furnaces, and electric heat pumps.

Specifically excluded are heat transfer coils and large commercial and industrial chillers.

Large commercial and industrial chillers means, for the purposes of this subpart, equipment designed to produce chilled water for use in commercial or industrial HVAC systems.

Manufacturer's formulation data means data on a material (such as a coating) that are supplied by the material manufacturer based on knowledge of the ingredients used to manufacture that material, rather than based on testing of the material with the test methods specified in § 63.4141. Manufacturer's formulation data may include, but are not limited to, information on density, organic HAP content, volatile organic matter content, and coating solids content.

Mass fraction of organic HAP means the ratio of the mass of organic HAP to the mass of a material in which it is contained, expressed as kg organic HAP per kg of material.

Month means a calendar month or a pre-specified period of 28 to 35 days to allow for flexibility in recordkeeping when data are based on a business accounting period.

Organic HAP content means the mass of organic HAP per volume of coating solids for a coating, calculated using Equation 2 of § 63.4141. The organic HAP content is determined for the coating in the condition it is in when received from its manufacturer or supplier and does not account for any alteration after receipt.

Permanent total enclosure (PTE) means a permanently installed enclosure that meets the criteria of Method 204 of appendix M, 40 CFR part 51, for a PTE and that directs all the exhaust gases from the enclosure to an add-on control device.

Protective oil means an organic material that is applied to a substrate for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oils includes, but is not limited to, lubricating oils, evaporative oils (including those that evaporate completely), and extrusion oils.

Research or laboratory facility means a facility whose primary purpose is for research and development of new processes and products conducted under the close supervision of technically trained personnel and is not engaged in the manufacture of final or intermediate products for commercial purposes, except in a de minimis manner.

Responsible official means responsible official as defined in 40 CFR 70.2.

Startup, initial means the first time equipment is brought online in a facility.

Surface preparation means use of a cleaning material on a portion of or all of a substrate including use of cleaning material to remove dried coating which is sometimes called ''depainting.''

Temporary total enclosure means an enclosure constructed for the purpose of measuring the capture efficiency of pollutants emitted from a given source as defined in Method 204 of appendix M, 40 CFR part 51.

Thinner means an organic solvent that is added to a coating after the coating is received from the supplier.

Total volatile hydrocarbon (TVH) means the total amount of nonaqueous volatile organic matter determined according to Methods 204 and 204A through 204F of appendix M to 40 CFR part 51 and substituting the term TVH each place in the methods where the term VOC is used. The TVH includes both VOC and non-VOC.

Uncontrolled coating operation means a coating operation from which no organic HAP emissions are routed through an emission capture system and add-on control device.

Volatile organic compound (VOC) means any compound defined as VOC in 40 CFR 51.100(s).

Volume fraction of coating solids means the ratio of the volume of coating solids (also known as volume of nonvolatiles) to the volume of coating, expressed as liters of coating solids per liter of coating.

Wastewater means water that is generated in a coating operation and is collected, stored, or treated prior to being discarded or discharged.

Tables to Subpart NNNN of Part 63

TABLE 1 TO SUBPART NNNN OF PART 63.—OPERATING LIMITS IF USING THE EMISSION RATE WITH ADD-ON CONTROLS OPTION

[If you are required to comply with operating limits by § 63.4092, you must comply with the applicable operating limits in the following table]

For following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
1. thermal oxidizer	a. the average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to § 63.4167(a).	i. collecting the combustion temperature data according to § 63.4168(c); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average combustion temperature at or above the combustion temperature limit.
2. catalytic oxidizer	a. the average temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to § 63.4167(b); and either.	i. collecting the temperature data according to § 63.4168(c); ii. reducing the data to 3-hour block before the averages; and iii. maintaining the 3-hour average temperature before the catalyst bed at or above the temperature limit.

TABLE 1 TO SUBPART NNNN OF PART 63.—OPERATING LIMITS IF USING THE EMISSION RATE WITH ADD-ON CONTROLS OPTION—Continued

[If you are required to comply with operating limits by § 63.4092, you must comply with the applicable operating limits in the following table]

For following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
	b. ensure that average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to § 63.4167(b)(2); or.	i. collecting the temperature data according to § 63.4168(c); ii. reducing the data to 3-hour block difference across averages; and iii. maintaining the 3-hour average temperature difference at or above the temperature difference limit.
	c. develop and implement an inspection and maintenance plan according to § 63.4167(b)(4).	i. maintaining an up-to-date inspection and maintenance plan, records of annual catalyst activity checks, records monthly inspections of the oxidizer system, and records of the annual internal inspections of the catalyst bed. If a problem is discovered during a monthly or annual inspection required by § 63.4167(b)(4), you must take corrective action as soon as practicable consistent with the manufacturer's recommendations.
3. carbon adsorber	a. the total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each carbon bed regeneration cycle must not fall below the total regeneration desorbing gas mass flow limit established according to § 63.4167(c).	i. measuring the total regeneration desorbing gas (e.g., steam or nitrogen) mass flow for each regeneration cycle according to § 63.4168(d); and ii. maintaining the total regeneration desorbing gas mass flow at or above the mass flow limit.
	b. the temperature of the carbon bed, after completing each regeneration and any cooling cycle, must not exceed the carbon bed temperature limit established according to § 63.4167(c).	i. measuring the temperature of the carbon bed after completing each regeneration and any cooling cycle according to § 63.4168(d); and ii. operating the carbon beds such that each carbon bed is not returned to service until the recorded temperature of the carbon bed is at or below the temperature limit.
4. condenser	a. the average condenser outlet (product side) gas temperature in any 3-hour period must not exceed the temperature limit established according to § 63.4167(d).	i. collecting the condenser outlet (product side) gas temperature according to § 63.4168(e); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average gas exceed the temperature at the outlet at or below the temperature limit.
5. concentrators, including zeolite wheels and rotary carbon adsorbers.	a. the average gas temperature of the desorption concentrate stream in any 3-hour period must not fall below the limit established according to § 63.4167(e).	i. collecting the temperature data according to 63.4168(f); ii. reducing the data to 3-hour block averaged; and iii. maintaining the 3-hour average temperature at or above the temperature limit.
	b. the average pressure drop of the dilute stream across the concentrator in any 3-hour period must not fall below the limit established according to § 63.4167(e).	i. collecting the pressure drop data according to 63.4168(f); and ii. reducing the pressure drop data to across the 3-hour block averages; and iii. maintaining the 3-hour average pressure drop at or above the pressure drop limit.
6. emission capture system that is a PTE according to § 63.4165(a).	a. the direction of the air flow at all times must be into the enclosure; and either.	i. collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to § 63.4168(g)(1) or the pressure drop across the enclosure according to § 63.4168(g)(2); and ii. maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.
	b. the average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or.	See item 6.a. of this table.
	c. the pressure drop across the enclosure must be at least 0.007 inch H2O, as established in Method 204 of appendix M to 40 CFR part 51.	See item 6.a. of this table.

TABLE 1 TO SUBPART NNNN OF PART 63.—OPERATING LIMITS IF USING THE EMISSION RATE WITH ADD-ON CONTROLS OPTION—Continued

[If you are required to comply with operating limits by § 63.4092, you must comply with the applicable operating limits in the following table]

For following device . . .	You must meet the following operating limit . . .	And you must demonstrate continuous compliance with the operating limit by . . .
7. emission capture system that is not a PTE according to § 63.4165(a).	a. the average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to § 63.4167(f).	i. collecting the gas volumetric flow rate or duct static pressure for each capture device according to § 63.4168(g); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limit.

TABLE 2 TO SUBPART NNNN OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART NNNN

[You must comply with the applicable General Provisions requirements according to the following table]

Citation	Subject	Applicable to subpart NNNN	Explanation
§ 63.1(a)(1)–(14)	General Applicability	Yes	
§ 63.1(b)(1)–(3)	Initial Applicability Determination	Yes	Applicability to subpart NNNN is also specified in § 63.4081.
§ 63.1(c)(1)	Applicability After Standard Established	Yes	
§ 63.1(c)(2)–(3)	Applicability of Permit Program for Area Sources.	No	Area sources are not subject to subpart NNNN.
§ 63.1(c)(4)–(5)	Extensions and Notifications	Yes	
§ 63.1(e)	Applicability of Permit Program Before Relevant Standard is Set.	Yes	
§ 63.2	Definitions	Yes	Additional definitions are Specified in § 63.4181.
§ 63.3(a)–(c)	Units and Abbreviations	Yes	
§ 63.4(a)(1)–(5)	Prohibited Activities	Yes	
§ 63.4(b)–(c)	Circumvention/Severability	Yes	
§ 63.5(a)	Construction/Reconstruction	Yes	
§ 63.5(b)(1)–(6)	Requirements for Existing, Newly Constructed, and Reconstructed Sources.	Yes	
§ 63.5(d)	Application for Approval of Construction/Reconstruction.	Yes	
§ 63.5(e)	Approval of Construction/Reconstruction	Yes	
§ 63.5(f)	Approval of Construction/Reconstruction Based on Prior State Review.	Yes	
§ 63.6(a)	Compliance With Standards and Maintenance Requirements—Applicability.	Yes	
§ 63.6(b)(1)–(7)	Compliance Dates for New and Reconstructed Sources.	Yes	Section 63.4083 specifies the compliance dates.
§ 63.6(c)(1)–(5)	Compliance Dates for Existing Sources	Yes	Section 63.4083 specifies the compliance dates.
§ 63.6(e)(1)–(2)	Operation and Maintenance	Yes	
§ 63.6(e)(3)	SSMP	Yes	Only sources using an add—on control device to comply with the standard must complete SSMP.
§ 63.6(f)(1)	Compliance Except During Startup, Shutdown, and Malfunction.	Yes	Applies only to sources using an and add—on control device to comply with the standards.
§ 63.6(f)(2)–(3)	Methods for Determining Compliance	Yes	
§ 63.6(g)(1)–(3)	Use of an Alternative Standard	Yes	
§ 63.6(h)	Compliance With Opacity/Visible Emission standards.	No	Subpart NNNN does not establish opacity standards and does not require continuous opacity monitoring systems (COMS).
§ 63.6(i)(1)–(16)	Extension of Compliance	Yes	
§ 63.6(j)	Presidential Compliance Exemption	Yes	
§ 63.7(a)(1)	Performance Test Requirements—Applicability.	Yes	Applies to all affected sources. Additional requirements for performance testing are specified in §§ 63.4164, 63.4165, and 63.4166.

TABLE 2 TO SUBPART NNNN OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART NNNN—Continued

[You must comply with the applicable General Provisions requirements according to the following table]

Citation	Subject	Applicable to subpart NNNN	Explanation
§ 63.7(a)(2)	Performance Test Requirements—Dates	Yes	Applies only to performance tests for caputre system and control device efficiency at sources using these to comply with the standards. Section 63.4160 specifies the schedule for performance test requirements that are earlier than those specified in § 63.7(a)(2).
§ 63.7(a)(3)	Performance Tests Required By the Administrator.	Yes	
§ 63.7(b)–(e)	Performance Test Requirements—Notification, Quality Assurance Facilities Necessary for Safe Testing, Conditions During Test.	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standard.
§ 63.7(f)	Performance Test Requirements—Use of Alternative Test Method.	Yes	Applies to all test methods except those used to determine capture system efficiency.
§ 63.7(g)–(h)	Performance Test Requirements—Data Analysis, Recordkeeping, Reporting, Waiver of Test.	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standard.
§ 63.8(a)(1)–(3)	Monitoring Requirements—Applicability	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for monitoring are specified in § 63.4168.
§ 63.8(a)(4)	Additional Monitoring Requirements	No	Subpart NNNN does not have monitoring requirements for flares.
§ 63.8(b)	Conduct of Monitoring	Yes	
§ 63.8(c)(1)–(3)	Continuous Monitoring Systems (CMS) Operation and Maintenance.	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for CMS operations and maintenance are specified in § 63.4168.
§ 63.8(c)(4)	CMS	No	Section 63.4168 specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply.
§ 63.8(c)(5)	COMS	No	Subpart NNNN does not have opacity or visible emission standards.
§ 63.8(c)(6)	CMS Requirements	No	Section 63.4168 specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply.
§ 63.8(c)(7)	CMS Out-of-Control Periods	Yes	
§ 63.8(c)(8)	CMS Out-of-Control Periods and Reporting.	No	Section 63.4120 requires reporting of CMS out-of-control periods.
§ 63.8(d)–(e)	Quality Control Program and CMS Performance Evaluation.	No	Subpart NNNN does not require the use of continuous emissions monitoring systems.
§ 63.8(f)(1)–(5)	Use of an Alternative Monitoring Method	Yes	
§ 63.8(f)(6)	Alternative to Relative Accuracy Test	No	Subpart NNNN does not require the use of continuous emissions monitoring systems.
§ 63.8(g)(1)–(5)	Data Reduction	No	Sections 63.4167 and 63.4168 specify monitoring data reduction.
§ 63.9(a)–(d)	Notification Requirements	Yes	
§ 63.9(e)	Notification of Performance Test	Yes	Applies only to capture system and add-on control device performance tests at sources using these to comply with the standard.
§ 63.9(f)	Notification of Visible Emissions/Opacity Test.	No	Subpart NNNN does not have opacity or visible emission standards.

TABLE 2 TO SUBPART NNNN OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART NNNN—Continued

[You must comply with the applicable General Provisions requirements according to the following table]

Citation	Subject	Applicable to subpart NNNN	Explanation
§ 63.9(g)(1)–(3)	Additional Notifications When Using CMS	No	Subpart NNNN does not require the use of continuous emissions monitoring systems.
§ 63.9(h)	Notification of Compliance Status	Yes	Section 63.4110 specifies the dates for submitting the notification of compliance status.
§ 63.9(i)	Adjustment of Submittal Deadlines	Yes	
§ 63.9(j)	Change in Previous Information	Yes	
§ 63.10(a)	Recordkeeping/Reporting—Applicability and General Information.	Yes	
§ 63.10(b)(1)	General Recordkeeping Requirements	Yes	Additional requirements are specified in §§ 63.4130 and 63.4131.
§ 63.10(b)(2)(i)–(v)	Recordkeeping Relevant to Startup, Shutdown, and Malfunction Periods and CMS.	Yes	Requirements for startup, shutdown, and malfunction records only apply to add-on control devices used to comply with the standard.
§ 63.10(b)(2)(vi)–(xi)		Yes	
§ 63.10(b)(2)(xii)	Records	Yes	
§ 63.10(b)(2)(xiii)		No	Subpart NNNN does not require the use of continuous emissions monitoring systems.
§ 63.10(b)(2)(xiv)		Yes	
§ 63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations.	Yes.	
§ 63.10(c)(1)–(6)	Additional Recordkeeping Requirements for Sources with CMS.	Yes	
§ 63.10(c)(7)–(8)		No	The same records are required in § 63.4120(a)(7).
§ 63.10(c)(9)–(15)		Yes	
§ 63.10(d)(1)	General Reporting Requirements	Yes	Additional requirements are specified in § 63.4120.
§ 63.10(d)(2)	Report of Performance Test Results	Yes	Additional requirements are specified in § 63.4120(b).
§ 63.10(d)(3)	Reporting Opacity or Visible Emissions Observations.	No	Subpart NNNN does not require opacity or visible emissions observations.
§ 63.10(d)(4)	Progress Reports for Sources With Compliance Extensions.	Yes	
§ 63.10(d)(5)	Startup, Shutdown, and Malfunction Reports.	Yes	Applies only to add-on control devices at sources using these to comply with the standard.
§ 63.10(e)(1)–(2)	Additional CMS Reports	No	Subpart NNNN does not require the use of continuous emissions monitoring systems.
§ 63.10(e)(3)	Excess Emissions/CMS Performance Reports.	No	Section 63.4120(b) specifies the contents of periodic compliance reports.
§ 63.10(e)(4)	COMS Data Reports	No	Subpart NNNN does not specify requirements for opacity or COMS.
§ 63.10(f)	Recordkeeping/Reporting Waiver	Yes	
§ 63.11	Control Device Requirements/Flares	No	Subpart NNNN does not specify use of flares for compliance.
§ 63.12	State Authority and Delegations	Yes	
§ 63.13	Addresses	Yes	
§ 63.14	Incorporation by Reference	Yes	
§ 63.15	Availability of Information/Confidentiality	Yes	

TABLE 3 TO SUBPART NNNN OF PART 63.—DEFAULT ORGANIC HAP MASS FRACTION FOR SOLVENTS AND SOLVENT BLENDS

[You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data.]

Solvent/solvent blend	CAS. No.	Average organic HAP mass fraction	Typical organic HAP, percent by mass
1. Toluene	108–88–3	1.0	Toluene.
2. Xylene(s)	1330–20–7	1.0	Xylenes, ethylbenzene.
3. Hexane	110–54–3	0.5	n-hexane.
4. n-Hexane	110–54–3	1.0	n-hexane.

TABLE 3 TO SUBPART NNNN OF PART 63.—DEFAULT ORGANIC HAP MASS FRACTION FOR SOLVENTS AND SOLVENT BLENDS—Continued

[You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data.]

Solvent/solvent blend	CAS. No.	Average organic HAP mass fraction	Typical organic HAP, percent by mass
5. Ethylbenzene	100–41–4	1.0	Ethylbenzene.
6. Aliphatic 140		0	None.
7. Aromatic 100		0.02	1% xylene, 1% cumene.
8. Aromatic 150		0.09	Naphthalene.
9. Aromatic naphtha	64742–95–6	0.02	1% xylene, 1% cumene.
10. Aromatic solvent	64742–94–5	0.1	Naphthalene.
11. Exempt mineral spirits	8032–32–4	0	None.
12. Ligroines (VM & P)	8032–32–4	0	None.
13. Lactol spirits	64742–89–6	0.15	Toluene.
14. Low aromatic white spirit	64742–82–1	0	None.
15. Mineral spirits	64742–88–7	0.01	Xylenes.
16. Hydrotreated naphtha	64742–48–9	0	None.
17. Hydrotreated light distillate	64742–47–8	0.001	Toluene.
18. Stoddard solvent	8052–41–3	0.01	Xylenes.
19. Super high-flash naphtha	64742–95–6	0.05	Xylenes.
20. Varsol® solvent	8052–49–3	0.01	0.5% xylenes, 0.5% ethylbenzene.
21. VM & P naphtha	64742–89–8	0.06	3% toluene, 3% xylene.
22. Petroleum distillate mixture	68477–31–6	0.08	4% naphthalene, 4% biphenyl.

TABLE 4 TO SUBPART NNNN OF PART 63.—DEFAULT ORGANIC HAP MASS FRACTION FOR PETROLEUM SOLVENT GROUPS [a]

[You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data.]

Solvent type	Average organic HAP mass fraction	Typical organic HAP, percent by mass
Aliphatic [b]	0.03	1% Xylene, 1% Toluene, and 1% Ethylbenzene.
Aromatic [c]	0.06	4% Xylene, 1% Toluene, and 1% Ethylbenzene.

[a] Use this table only if the solvent blend does not match any of the solvent blends in Table 3 to this subpart and you only know whether the blend is aliphatic or aromatic.

[b] e.g., Mineral Spirits 135, Mineral Spirits 150 EC, Naphtha, Mixed Hydrocarbon, Aliphatic Hydrocarbon, Aliphatic Naphtha, Naphthol Spirits, Petroleum Spirits, Petroleum Oil, Petroleum Naphtha, Solvent Naphtha, Solvent Blend.

[c] e.g., Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

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