

**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](http://www.regulations.gov) Web site. Although listed in the index, some information is not publicly available, i.e., CBI or other information whose disclosure is restricted by statute. Certain other 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](http://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: [edding.jim@epa.gov](mailto:edding.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).<sup>1</sup> 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

<sup>1</sup> 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).<sup>2</sup>

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.

<sup>2</sup> 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](http://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](http://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/m<sup>3</sup>. This is the acute dose-response value that we used, as reflected in table 3 (converted to 50000 ug/m<sup>3</sup>) 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. (70 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<sub>2</sub>) 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 is 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<sub>2</sub>, or Manganese from a subpart DDDDD emission unit.

$$E_{i,s} = \sum_{j=1}^t (R_{i,j} \times I_j) \quad (\text{Eq. 1})$$

Where:

E<sub>i,s</sub> = 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<sub>2</sub>, 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<sub>i,j</sub> = 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<sub>j</sub> = 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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> from any subpart DDDDD sources. Then, calculate the weighted average stack height using equation 3 of this appendix.

$$TW_s = E_{HCl,s} + E_{Cl_2,s} \left( \frac{RV_{HCl}}{RV_{Cl_2}} \right) \quad (\text{Eq. 2})$$

Where:

TW<sub>s</sub> = the toxicity-weighted emission rate (in HCl-equivalent) for each emission point s, lb/hr.

s = individual emission points  
 E<sub>HCl,s</sub> = the maximum hourly emission rate for HCl at emission point s, lb/hr  
 E<sub>Cl<sub>2</sub>,s</sub> = the maximum hourly emission rate for Cl<sub>2</sub> at emission point s, lb/hr

RV<sub>Cl<sub>2</sub></sub> = the reference value for Cl<sub>2</sub>  
 RV<sub>HCl</sub> = the reference value for HCl  
 (reference values for HCl and Cl<sub>2</sub> can be found at <http://www.epa.gov/ttn/atw/toxsource/summary.html>).

$$H_{HCl} = \frac{\sum_{s=1}^n (TW_s \times H_s)}{TW_T} \quad (\text{Eq. 3})$$

Where:

H<sub>HCl</sub> = 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<sub>s</sub> = toxicity-weighted HCl-equivalent emission rate from each emission point (from equation 2), lb/hr.  
 H<sub>s</sub> = height of each individual stack, m  
 TW<sub>T</sub> = total toxicity-weighted HCl-equivalent emission rate from the source (summed for all emission points), lb/hr.

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<sub>2</sub>, 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.

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.

(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

$$H_{Mn} = \frac{\sum_{s=1}^n (E_{Mn,s} \times H_s)}{E_{Mn,T}} \quad (\text{Eq. 4})$$

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<sub>2</sub>.

\* \* \* \* \*

(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 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.

\* \* \* \* \*

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