

## ENVIRONMENTAL PROTECTION AGENCY

## 40 CFR Part 63

[EPA-HQ-OAR-2006-0510; FRL- ]

RIN 2060-AN45

**National Emission Standards for Hazardous Air Pollutants  
for Area Sources: Polyvinyl Chloride and Copolymers  
Production, Primary Copper Smelting, Secondary Copper  
Smelting, and Primary Nonferrous Metals-Zinc, Cadmium, and  
Beryllium**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rules.

**SUMMARY:** EPA is proposing national emission standards for hazardous air pollutants (NESHAP) for four area source categories. The proposed NESHAP reflect EPA's determination that existing facilities in three of these categories are well controlled and that the emission control devices and work practices at these facilities represent the generally available control technology (GACT) for these source categories. For secondary copper smelting, we are proposing NESHAP for new area sources because there is not, and never will be, any existing source in this category.

**DATES:** Comments must be received on or before [INSERT 30 DAYS AFTER PUBLICATION], unless a public hearing is requested by [INSERT 10 DAYS AFTER PUBLICATION.] If a

hearing is requested on the proposed rules, written comments must be received by [INSERT 45 DAYS AFTER PUBLICATION].

Public Hearing. If anyone contacts EPA requesting to speak at a public hearing concerning the proposed rules by [INSERT 10 DAYS AFTER PUBLICATION], we will hold a public hearing on [INSERT 15 DAYS AFTER PUBLICATION]. If you are interested in attending the public hearing, contact Ms. Pamela Garrett at (919) 541-7966 to verify that a hearing will be held.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-HQ-OAR-2006-0510, by one of the following methods:

- Federal eRulemaking Portal:  
<http://www.regulations.gov>. Follow the on-line instructions for submitting comments.
- E-mail: [a-and-r-docket@epa.gov](mailto:a-and-r-docket@epa.gov).
- Fax: (202) 566-1741.
- Mail: National Emission Standards for Hazardous Air Pollutants for Four Area Source Categories, Docket No. EPA-HQ-OAR-2006-0510, Environmental Protection Agency, EPA Docket Center, Mailcode 6102T, 1200 Pennsylvania Ave., NW, Washington, DC 20460. Please include a total of two copies. In

addition, please mail a copy of your comments on the information collection provisions to the Office of Information and Regulatory Affairs, Office of Management and Budget (OMB), Attn: Desk Officer for EPA, 725 17th St., NW, Washington, DC 20503.

- Hand Delivery: EPA Docket Center, Public Reading Room, EPA West, Room B102, 1301 Constitution Ave., NW, Washington, DC 20460. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information. NOTE: The EPA Docket Center suffered damage due to flooding during the last week of June 2006. The Docket Center is continuing to operate. However, during the cleanup, there will be temporary changes to Docket Center telephone numbers, addresses, and hours of operation for people who wish to make hand deliveries or visit the Public Reading Room to view documents. Consult EPA's Federal Register notice at 71 FR 38147 (July 5, 2006) or the EPA Web site at <http://www.epa.gov/epahome/dockets.htm> for

current information on docket operations,  
locations and telephone numbers.

Instructions: Direct your comments to Docket ID No. EPA-HQ-OAR-2006-0510. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at <http://www.regulations.gov>, including any personal information provided, unless the comment includes information claimed to be confidential business information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through [www.regulations.gov](http://www.regulations.gov) or e-mail. The [www.regulations.gov](http://www.regulations.gov) website is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through [www.regulations.gov](http://www.regulations.gov), your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If

EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: All documents in the docket are listed in the Federal Docket Management System index at <http://www.regulations.gov>. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through [www.regulations.gov](http://www.regulations.gov) or in hard copy at the EPA Docket Center, Public Reading Room, 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 Docket is (202) 566-1742.

**FOR FURTHER INFORMATION CONTACT:** Mr. Bob Schell, U.S. EPA,

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**SUPPLEMENTARY INFORMATION:**

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

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C. Regulatory Flexibility Act

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

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

I. National Technology Transfer Advancement Act

## **I. General Information**

A. Does this action apply to me?

The regulated categories and entities potentially affected by the proposed standards include:

Category	NAICS code <sup>1</sup>	Examples of regulated entities
Industry:		
Polyvinyl chloride and copolymers production	325211	Area source facilities that polymerize vinyl chloride monomer to produce vinyl chloride and/or copolymer products.
Primary copper smelting	331411	Area source facilities that produce copper from copper sulfide ore concentrates using pyrometallurgical techniques.
Secondary copper smelting	331423 <sup>2</sup>	Area source facilities that process copper scrap in a blast furnace and converter or use another pyrometallurgical purification process to produce anode copper from copper scrap, including low-grade copper scrap.
Primary nonferrous metals - zinc, cadmium, and beryllium	331419	Area source facilities that produce zinc, zinc oxide, cadmium, or cadmium oxide from zinc sulfide ore concentrates using pyrometallurgical techniques and area source facilities that produce beryllium metal, alloy, or oxide from beryllium ore.
Federal government . . . .		Not affected.
State/local/tribal government . . . .		Not affected.

<sup>1</sup> North American Industry Classification System.

<sup>2</sup> The proposed rule applies only to secondary copper smelters and does not apply to copper, brass, and bronze ingot makers or remelters that may also be included under this NAICS code. There are no existing secondary copper smelters as defined in the proposed rule.



This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by this action. To determine whether your facility would be regulated by this action, you should examine the applicability criteria in 40 CFR 63.11140 of subpart DDDDDD (NESHAP for Polyvinyl Chloride and Copolymers Production Area Sources), 40 CFR 63.11146 of subpart EEEEEEE (NESHAP for Primary Copper Smelting Area Sources), 40 CFR 63.11153 of subpart FFFFFFF (NESHAP for Secondary Copper Smelting Area Sources), or 40 CFR 63.11160 of subpart GGGGGG (NESHAP for Primary Nonferrous Metals-- Zinc, Cadmium, and Beryllium Area Sources). If you have any questions regarding the applicability of this action to a particular entity, consult either the air permit authority for the entity or your EPA regional representative as listed in 40 CFR 63.13 of subpart A (General Provisions).

B. What should I consider as I prepare my comments to EPA?

Do not submit information containing CBI to EPA through [www.regulations.gov](http://www.regulations.gov) or e-mail. Send or deliver information identified as CBI only to the following address: Roberto Morales, OAQPS Document Control Officer (C404-02), U.S. EPA, Office of Air Quality Planning and

Standards, Research Triangle Park, North Carolina 27711, Attention Docket ID EPA-HQ-OAR-2006-0510. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD ROM that you mail to EPA, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

C. Where can I get a copy of this document and other related information?

In addition to being available in the docket, an electronic copy of these proposed actions will also be available on the Worldwide Web (WWW) through the Technology Transfer Network (TTN). Following signature, a copy of the proposed actions will be posted on the TTN's policy and guidance page for newly proposed or promulgated rules at the following address: <http://www.epa.gov/ttn/oarpg/>. The TTN provides information and technology exchange in various

areas of air pollution control.

## **II. Background Information for Proposed Area Source Standards**

Section 112(d) of the Clean Air Act (CAA) requires us to establish NESHAP for both major and area sources of hazardous air pollutants (HAP) that are listed for regulation under CAA section 112(c). A major source is a stationary source that emits or has the potential to emit 10 tons per year (tpy) or more of any HAP or 25 tpy or more of any combination of HAP. An area source is a stationary source that is not a major source (i.e., an area source does not emit and does not have the potential to emit either 10 tpy or more of any single HAP or 25 tpy or more of any combination of HAP).

Requirements for area sources are described in CAA sections 112(c)(3) and 112(k). These provisions direct EPA (1) to identify not less than 30 HAP that present the threat to public health in the largest number of urban areas and (2) to identify sufficient area source categories to ensure that sources representing 90 percent or more of the emissions of each of the 30 "listed" HAP ("urban HAP") are subject to regulation. We implemented these listing requirements through the Integrated Urban Air Toxics

Strategy (64 FR 38715, July 19, 1999).<sup>1</sup>

However, EPA has not completed the required regulatory action for all of the listed area source categories.

Pursuant to CAA section 304, Sierra Club brought suit in the district court for the District of Columbia to compel EPA to complete this action (Sierra Club v. U.S. Environmental Protection Agency, no. 01-1537, DC Cir.). On March 31, 2006, the court issued an order requiring, among other things, that we complete regulatory action for a specified number of area source categories every 6 months starting December 15, 2006, and complete regulatory action of all remaining categories by June 15, 2009. The order requires that, by December 15, 2006, we complete regulatory action for four area source categories. The four area source categories that we have selected to meet this obligation and are therefore subject of this proposal are as follows: (1) Primary Copper Smelting; (2) Secondary Copper Smelting; (3) Polyvinyl Chloride and Copolymers Production; and (4) Primary Nonferrous Metals - Zinc, Cadmium, and Beryllium.

On June 26, 2002, we amended the area source category

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<sup>1</sup> Since its publication in the Integrated Urban Air Toxics Strategy in 1999, the area source category list has undergone several amendments.

list by adding additional source categories, including Polyvinyl Chloride and Copolymers Production, Secondary Copper Smelting, and Cadmium Refining and Cadmium Oxide Production source categories (67 FR 43112, 43113). On November 22, 2002, we further amended the category list by, among other things, adding Primary Copper Smelting (67 FR 70427, 70428). We also expanded the Cadmium Refining and Cadmium Oxide Production source category to include primary zinc and beryllium production and renamed the category accordingly as Primary Nonferrous Metals -- Zinc, Cadmium, and Beryllium.

The inclusion of each of the four source categories on the area source category list is based on data from the CAA section 112(k) inventory, which represents 1990 urban air data. The Polyvinyl Chloride and Copolymers Production source category listing was based on vinyl chloride emissions. The Primary Copper Smelting source category listing was based on HAP metal emissions (arsenic, cadmium, chromium, lead, and nickel), while Secondary Copper Smelting was based on HAP emissions of cadmium, lead, and dioxin. The listing of the Primary Nonferrous Metals--Zinc, Cadmium, and Beryllium source category was based on emissions of arsenic, cadmium, lead, manganese, and nickel.

Section 112(k)(3)(B) of the CAA requires that EPA ensure that sources representing 90 percent of the emissions of each of the 30 urban HAP are subject to standards pursuant to section 112(d). Under CAA section 112(d)(5), the Administrator may, in lieu of standards requiring maximum achievable control technology (MACT) under section 112(d)(2), elect to promulgate standards or requirements for area sources "which provide for the use of generally available control technologies ["GACT"] or management practices by such sources to reduce emissions of hazardous air pollutants." Under section 112(d)(5), the Administrator has the discretion to use GACT in lieu of MACT. Pursuant to section 112(d)(5), I have decided not to issue MACT standards and concluded that GACT is appropriate for these four source categories.

Legislative history describes GACT as standards reflecting application of generally available control technology, that is, "methods, practices and techniques which are commercially available and appropriate for application by the sources in the category considering economic impacts and the technical capabilities of the firms to operate and maintain the emissions control systems" (Senate Report Number 101-228, December 20, 1989).

In addition to technical capabilities of the facilities and availabilities of control measures, legislative history suggests that we may consider costs and economic impacts in determining GACT, which is particularly important when developing regulations for source categories that may have few establishments and many small businesses, or when determining whether additional control is necessary for sources with emissions that are already well controlled as a result of other existing or applicable standards.

Existing facilities in three of these source categories are currently well controlled as a result of State and national standards and permitting requirements for criteria pollutants that obtain co-control of HAP. There are no existing sources in the secondary copper smelting source category. New and existing area sources of polyvinyl chloride (PVC) and copolymer plants are subject to the National Emission Standard for Vinyl Chloride (40 CFR part 61, subpart F). The vinyl chloride standard requires that new and existing area sources also comply with the National Emission Standard for Equipment Leaks (Fugitive Emission Sources) in 40 CFR part 61, subpart V. New and existing area sources that process beryllium ore, beryllium, beryllium oxide, beryllium alloys, or beryllium-

containing waste are subject to the National Emission Standard for Beryllium (40 CFR part 61, subpart C). One of the two primary zinc production area sources is subject to the new source performance standard (NSPS) at 40 CFR part 60, subpart Q, and primary copper smelting area sources are subject to the NSPS at 40 CFR part 60, subpart P. These NSPS, as well as other applicable Federal and State requirements, are incorporated into and enforced under these primary zinc production and primary copper smelting area sources' title V permits.

Except for dioxin emissions from secondary copper smelting, the urban HAP emissions from the three area source categories for nonferrous metals are all metal HAP. Under the Federal standards mentioned above that are applicable to these three categories, we are able to control the urban metal HAP emissions by controlling emissions of particulate matter (PM), which provide co-control of the HAP metals for PM. The Secondary Copper Smelting source category does not have any existing plants -- plants that were operating in 1990 have permanently closed, and no new plants have started. As discussed in more detail in sections III through VI of this preamble, we conclude that, with the exception of secondary copper



smelting, GACT is equivalent to the levels of control that are currently required and being implemented by sources in the other three categories. Because there is not currently any, nor is there expected to be any existing source of secondary copper smelting, we are not proposing a standard for existing sources but are proposing a standard for new area sources of secondary copper smelting.

### **III. Proposed NESHAP for Polyvinyl Chloride and Copolymers Production Area Sources**

#### **A. What area source category is affected by the proposed NESHAP?**

The Polyvinyl Chloride and Copolymers Production area source category includes facilities that polymerize vinyl chloride monomer alone or in combination with other materials to produce PVC and copolymers. Sources in this area source category are currently subject to the National Emission Standard for Vinyl Chloride (40 CFR part 61, subpart F). The vinyl chloride standard applies to all new and existing major and area sources of PVC and copolymer production.

We estimate that there are approximately 28 major sources of PVC and copolymer production facilities operating in the U.S. Although we do not know of any

existing area sources in this category, we cannot say conclusively that there are not and never will be any area sources in this category. Consequently, we are proposing standards for both new and existing area sources. We are requesting comments on whether there are or ever will be any area sources in this source category.

B. What HAP are emitted from polyvinyl chloride and copolymers production?

The resins used to make PVC and copolymer products are produced in batch reactor processes where vinyl chloride is polymerized with itself as a homopolymer or copolymerized with varying amounts of vinyl acetate, ethylene, propylene, vinylidene chloride, or acrylates. The resulting resins are generally dried into nontoxic powders or granules that are compounded with auxiliary ingredients and converted into a variety of plastic end products. These end products can be used in a large number of applications, including latex paints, coatings, adhesives, clear plastics, rigid plastics, and flooring.

The urban HAP emitted from PVC and copolymer production is vinyl chloride, which is used as a primary feedstock. The copolymer feedstocks (e.g., vinyl acetate and vinylidene chloride) are also HAP under CAA section

112(b) but are not listed as urban HAP. HAP may be released from an opening or leak in the process equipment. Residual HAP (i.e., unreacted vinyl chloride) in the product may also become airborne.

C. What are the proposed requirements for area sources?

1. Applicability and Compliance Dates

The proposed NESHAP apply to both new and existing PVC and copolymer plants that are area sources. Because existing area sources, if there are any, would already be operating subject to emissions limits and work practice standards that are the same as those in this proposed NESHAP, we are proposing that owners or operators of existing sources comply with all the requirements of the area source NESHAP by [DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]. The owner or operator of a new source would be required to comply with the area source NESHAP by [DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER] or at startup, whichever is later.

2. Emissions Limitations and Work Practice Standards

We are proposing to adopt as the NESHAP for the Polyvinyl Chloride and Copolymer Production area source category 40 CFR part 61, subpart F. Subpart F establishes numerical emissions limits for reactors; strippers; mixing,

weighing, and holding containers; monomer recovery systems; emissions sources following the stripper(s); and reactors used as strippers. Subpart F also establishes both emissions limits and work practice requirements that apply to discharges from manual vent valves on a PVC reactor and relief valves in vinyl chloride service, fugitive emissions sources, and equipment leaks. Subpart F requires a new or existing source to comply with the requirements at 40 CFR part 61, subpart V for the control of equipment leaks.

### 3. Compliance Requirements

We are proposing to include in this proposed NESHAP the monitoring, testing, recordkeeping, and reporting requirements in 40 CFR part 61, subpart F. The proposed NESHAP requires a vinyl chloride continuous emissions monitoring system (CEMS) for the regulated emissions sources (except for sources following the stripper) and for any control system to which reactor emissions or fugitive emissions must be ducted. Plants using a stripper to comply with the NESHAP must also determine the daily average vinyl chloride concentration for each type of resin. The proposed NESHAP requires the owner or operator to submit quarterly reports containing information on emissions or resin concentrations that exceed the

applicable limits. Records are required to demonstrate compliance, including a daily operating log for each reactor. Plants also would be required to comply with the testing, monitoring, recordkeeping, and reporting requirements in the part 61 General Provisions (40 CFR part 61, subpart A). We are also proposing that the owner or operator comply with the requirements for startup, shutdown, and malfunction (SSM) plans and reports in 40 CFR 63.6(e)(3). We have explicitly identified in the proposed NESHAP the applicable General Provisions of both 40 CFR parts 61 and 63.

D. What is our rationale for selecting the proposed standards for area sources?

1. Selection of Proposed Standards

Stripping is the primary control measure used at major sources of PVC and copolymer production facilities to control HAP emissions and meet the vinyl chloride emissions limits required by 40 CFR part 61, subpart F, which applies to both major and area sources in this category. Stripping at the production stage to recover unreacted feedstock reduces the air emissions from the product by reducing the residual HAP in the product. In addition to stripping, other HAP control measures that may be employed to meet the

subpart F standards include: (1) operating under a closed-vent system with add-on control (e.g., flare) to incinerate HAP gases not returning to the process, and (2) minimizing the presence of HAP before opening a reactor or piece of process equipment containing vinyl chloride monomer and other HAP. Subpart F also requires facilities to comply with the work practice standards for ongoing leak detection and repair prescribed in 40 CFR part 61, subpart V. As shown in major source facilities, these conventional control techniques and work practices are readily available and highly effective in controlling vinyl chloride emissions at PVC and copolymer production facilities. Although we are not aware of any existing area source, we have no reason to believe that the conventional control techniques employed at major sources to meet the emissions limits and work practice standards in subpart F are infeasible, impractical, or inappropriate for area sources. Therefore, we have determined that the emissions control requirements at 40 CFR part 61, subpart F represent GACT for new and existing sources in the Polyvinyl Chloride and Copolymer Production area source category.

## 2. Selection of Proposed Compliance Requirements

We have reviewed the compliance requirements in the

vinyl chloride standard and part 61 General Provisions applicable to this proposed NESHAP and concluded that these requirements are sufficient to ensure compliance with the proposed emissions limits and work practice standards. Therefore, we are including the part 61, subpart F performance test, monitoring requirements, and recordkeeping requirements in this proposed rule.

The General Provisions applicable to the subpart F standard (40 CFR part 61, subpart A), are necessary for effective application of the subpart F standard and are therefore incorporated into this proposed rule as well. We are also incorporating certain provisions in the General Provisions of part 63, subpart A to address aspects of this proposed rule not covered by the part 61 General Provisions. Specifically, we need to incorporate certain provisions in §§63.1 and 63.5 of the part 63 General Provisions which delineate applicability, construction, and reconstruction. However, we are not applying provisions within 40 CFR 63.1 and 63.5 that are already covered by part 61 General Provisions. We are proposing to apply the provisions in 40 CFR 63.1(a) except for the provisions in 40 CFR 63.1(a)(11) and (12) regarding notices, time periods, and postmarks; 40 CFR 63.1(b) except paragraph

(b)(3); 40 CFR 63.1(c); 40 CFR 63.1(e); and 40 CFR 63.5 except for the references to 40 CFR 63.6 for compliance procedures and the references to 40 CFR 63.9 for notification procedures. Because the part 61 General Provisions do not include requirements for SSM plans and reports, we are also proposing to require the owner or operator of a new or existing area source to comply with the SSM requirements in 40 CFR 63.6(e)(3) except for the requirement in 40 CFR 63.6(e)(3)(ix) to include the SSM provisions in the title V permit.

E. What is our rationale for exempting polyvinyl chloride and copolymers production area sources from the CAA title V permit requirements?

Section 502(a) of the CAA provides that EPA may exempt one or more area sources from the requirements of title V if EPA finds that compliance with such requirements is "impracticable, infeasible, or unnecessarily burdensome" on such area sources. EPA must determine whether to exempt an area source from title V at the time we issue the relevant section 112 standard (40 CFR 70.3(b)(2)). We are proposing in this action to exempt PVC and copolymers production area sources from the requirements of title V. PVC and copolymers production area sources would not be required to



obtain title V permits solely as a function of being the subject of the proposed NESHAP; however, if they were otherwise required to obtain title V permits, such requirement(s) would not be affected by the proposed exemption.

Consistent with the statute, EPA has found that compliance with title V permitting is "unnecessarily burdensome" for PVC and copolymers production area sources. EPA's inquiry into whether this criterion was satisfied was based primarily upon consideration of the following four factors: (1) whether title V would result in significant improvements to the compliance requirements that we are proposing for this area source category; (2) whether title V permitting would impose a significant burden on these area sources and whether that burden would be aggravated by any difficulty these sources may have in obtaining assistance from permitting agencies; (3) whether the costs of title V permitting for these area sources would be justified, taking into consideration any potential gains in compliance likely to occur for such sources; and (4) whether there are implementation and enforcement programs in place that are sufficient to assure compliance with this NESHAP without relying on title V permits.

Additionally, EPA also considered, consistent with the guidance provided by the legislative history of CAA section 502(a)<sup>2</sup>, whether exempting PVC and copolymers production area sources would adversely affect public health, welfare or the environment. We first determined the extent to which these factors were present for this area source category. We then determined whether those factors collectively demonstrated that compliance with title V requirements would be unnecessarily burdensome for PVC and copolymer production area sources.

The first factor is whether title V would result in significant improvements to the compliance requirements we are proposing for this area source category. We looked at the compliance requirements of the proposed NESHAP to see if they were substantially equivalent to the monitoring, recordkeeping and reporting requirements of title V (see 40 CFR 70.6 and 71.6) that we believe are important for assuring compliance with the NESHAP. The purpose of this review was to determine if title V is "unnecessary" to improve compliance with this NESHAP. A finding that title

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<sup>2</sup> The legislative history of section 502(a) suggests that EPA should not grant title V exemptions where doing so would adversely affect public health, welfare, or the environment. (See Chafee-Baucus Statement of Senate Managers, Environment and Natural Resources Policy Division 1990 CAA Leg. Hist. 905, Compiled November, 1993.)

V would not result in significant improvements to the compliance requirements in the proposed NESAHP would support a conclusion that title V permitting is "unnecessary" for area sources in this category. One way that title V may improve compliance is by requiring monitoring (including recordkeeping designed to serve as monitoring) to assure compliance with the emission limitations and control technology requirements imposed in the standard. The authority for adding new monitoring in the permit is in the "periodic monitoring" provisions of 40 CFR 70.6(a)(3)(i)(B) and 40 CFR 71.6(a)(3)(i)(B), which allow new monitoring to be added to the permit when the underlying standard does not already require "periodic testing or instrumental or noninstrumental monitoring (which may consist of recordkeeping designed to serve as monitoring)." In addition, title V imposes a number of recordkeeping and reporting requirements that may be important for assuring compliance. These include requirements for a monitoring report at least every 6 months, prompt reports of deviations, and an annual compliance certification. See 40 CFR 70.6(a)(3) and 40 CFR 71.6(a)(3), 40 CFR 70.6(c)(1) and 40 CFR 71.6(c)(1), and 40 CFR 70.6(c)(5) and 40 CFR 71.6(c)(5).

To determine whether title V permits would add significant compliance requirements to the proposed NESHAP for PVC and copolymer area sources, we compared the title V monitoring, recordkeeping, and reporting requirements mentioned above to those requirements in the proposed NESHAP for the Polyvinyl Chloride and Copolymer Production area source category, which adopts the compliance requirements in the National Emission Standard for Vinyl Chloride. See 40 CFR 61.60. We also reviewed the part 61 compliance requirements (specifically 40 CFR 61.67 through 61.71) applicable to this proposed NESHAP. The proposed NESHAP would require a vinyl chloride CEMS for the regulated emissions sources (except for sources following the stripper) and for any control system to which reactor emissions or fugitive emissions must be ducted. Plants using a stripper to comply with the NESHAP must also determine the daily average vinyl chloride concentration for each type of resin. Because both the continuous and noncontinuous monitoring methods required by the proposed NESHAP would provide periodic monitoring, title V would not add any monitoring to the proposed NESHAP.

We also considered the extent to which title V could enhance compliance for area sources through recordkeeping

or reporting requirements, including title V requirements for a 6-month monitoring report, deviation reports, and an annual compliance certification in 40 CFR 70.6 and 71.6. The proposed NESHAP requires the owner or operator to submit quarterly reports containing information on emissions or resin concentrations that exceed the applicable limits. Records are required to demonstrate compliance, including a daily operating log for each reactor, all emissions measurements, and leak detection and repair. The information required in the proposed NESHAP is similar to the information that must be provided in the deviation reports and semiannual monitoring reports required under 40 CFR 70.6(a)(3) and 40 CFR 71.6(a)(3). The proposed NESHAP does not require an annual compliance certification report, which is a requirement of a title V permit. See 40 CFR 70.5(c)(9)(iii) and 40 CFR 71.6(c)(5)(i). EPA believes that the annual certification reporting requirement is not a significant compliance requirement because the quarterly reports are adequate to ensure compliance.

The monitoring, recordkeeping and reporting requirements in the proposed NESHAP for the Polyvinyl Chloride and Copolymers Production area source category are

substantially equivalent to such requirements under title V. Therefore, we conclude that title V would not result in significant improvements to the compliance requirements we are proposing for this area source category.

The second factor we considered is whether title V permitting would impose significant burdens on these area sources and whether that burden would be aggravated by any difficulty these sources may have in obtaining assistance from permitting agencies. The information collection request (ICR) for parts 70 and 71 describes the title V burdens and costs in the aggregate, and although they do not focus on area sources, they do describe the various activities undertaken by title V sources, including area sources, so many of the same burdens and costs described in the ICR will also apply to area sources. Some examples of this burden include reading and understanding permit program guidance and regulations, completing the permit application, preparing and submitting applications for permit revisions every 5 years, and paying permit fees. We believe that this cost is a significant burden for these area sources based on our general assessment of this area source category.

The third factor we considered is whether the costs of

title V permitting for these area sources would be justified, taking into consideration any potential gains in compliance likely to occur for such sources. We found above that the costs of title V would be a significant burden on these area sources. Also, based on our consideration of factor 1 (described above) and factor 4 (described below), we did not identify potential gain in compliance with this proposed NESHAP from title V permitting. Therefore, we conclude that the costs of title V permitting for this area source category are not justified.

The fourth factor we considered is whether there are implementation and enforcement programs in place that are sufficient to assure compliance with this NESHAP without relying on title V permits. A conclusion that this criteria can be met would support a conclusion that Title V permitting is "unnecessary" for these area sources. See 70 FR 15254. There are State programs in place to enforce this area source NESHAP. We believe that these programs are sufficient to assure compliance with this NESHAP. In addition, EPA retains authority to enforce this NESHAP anytime under CAA sections 112, 113 and 114. In light of the above, we conclude that title V permitting is

"unnecessary" to assure compliance with this NESHAP because the statutory requirements for implementation and enforcement of this NESHAP by the delegated States and EPA are sufficient to assure compliance with this area source NESHAP, in all parts of the U.S., without title V permits. In addition, small business assistance programs required by CAA section 507 may be used to assist area sources that have been exempted from title V permitting. Also, States and EPA often conduct voluntary compliance assistance, outreach, and education programs (compliance assistance programs), which are not required by statute. These additional programs supplement and enhance the success of compliance with this area source NESHAP. In light of all of the above, we conclude that there are implementation and enforcement programs in place that are sufficient to assure compliance with this NESHAP without relying on title V permitting.

In addition to evaluating whether compliance with title V requirements is "unnecessarily burdensome", EPA also considered, consistent with guidance provided by the legislative history of section 502(a), whether exempting PVC and copolymer production area sources from title V requirements would adversely affect public health, welfare,



or the environment. One of the primary purposes of the title V permitting program is to clarify, in a single document, the various and sometimes complex regulations that apply to sources in order to improve understanding of these requirements and to help sources to achieve compliance with the requirements. In this case, however, we do not believe that a title V permit is necessary for us to understand all requirements applicable to PVC and copolymers production area sources. To our knowledge, currently the only applicable requirements to these area sources are 40 CFR part 61, subpart F. This proposal would not add new requirements to PVC and copolymers production area sources. We have determined that the subpart F requirements reflect GACT and thus adopted them in this proposed rule. Furthermore, we do not find subpart F standards to be very complicated to understand or implement. For these reasons, we do not find that title V permitting is necessary to improve understanding of and achieve compliance with these standards. Therefore, we conclude that exempting these area sources from title V permitting requirements in this proposed rule would not adversely affect public health, welfare, or the environment.

Based on the above analysis, we conclude that title V permitting would be "unnecessarily burdensome" for PVC and copolymer production area sources. We are, therefore, proposing that this area source category be exempt from title V permitting requirements.

#### **IV. Proposed NESHAP for Primary Copper Smelting Area**

##### **Sources**

##### **A. What area source category is affected by the proposed NESHAP?**

###### **1. Source Category Description**

Copper metal produced directly from copper ore is referred to as "primary copper." The primary copper smelting source category includes facilities that produce copper from copper sulfide ore concentrates using a pyrometallurgical process.

Currently, there are three primary copper smelters operating in the U.S. Two of these smelters are major sources of HAP emissions and are subject to the NESHAP for primary copper smelters in 40 CFR part 63, subpart QQQ. The third smelter is an area source and is not subject to the NESHAP in subpart QQQ, which only applies to major sources.

Each of the three primary copper smelters is located

in relatively close proximity to the copper mines supplying the copper ore. Copper ore excavated from mines is beneficiated to produce copper ore concentrate. The ore concentrates are first dried to reduce the moisture content. The dried concentrate then is blended with fluxes and secondary copper-bearing materials. This mixture is fed to a flash smelting furnace where the ore is melted and reacts to produce copper matte, a molten solution of copper sulfide mixed with iron sulfide.

The copper matte from the smelting furnace is converted to blister copper (approximately 98 percent pure copper) by oxidization to remove the sulfur as sulfur dioxide ( $\text{SO}_2$ ) gas and the iron as a ferrous oxide slag. The molten slag from converting is cooled and may be processed in slag concentrators to remove residual copper before on-site disposal. The  $\text{SO}_2$  gases from smelting and converting are vented to a sulfuric acid plant. Copper converting is conducted as a batch process in which molten matte is charged to large horizontal, cylindrical vessels or as a continuous process in which solid matte granules are fed to a flash smelting furnace-like vessel.

Molten blister copper is transferred from the converting vessel to an anode furnace for refining to

further remove residual impurities and oxygen. The blister copper is reduced in the anode furnace to remove oxygen, typically by injecting natural gas and steam to produce a high purity copper. The molten copper from the anode furnace is poured into molds to produce solid copper ingots called anodes. The anode copper is sent to a copper refinery, either on-site or at another location, where it is further purified using an electrolytic process to obtain the high-purity copper that is sold as a product.

The overall function of a primary copper smelter, regardless of the technologies used, is to produce anode copper from copper ore concentrates. However, there are key differences between how the anode copper is produced at a smelter using flash copper converting technology compared to smelters use batch copper converting technology. These differences allow a smelter using flash copper converting technology to have inherently lower potential HAP emissions than a smelter using batch copper converting technology.

## 2. Existing Sources

The primary copper smelter that is an area source uses flash copper converting technology. At this smelter, molten copper matte tapped from a flash smelting furnace is not transferred as molten material directly to the

converting vessel as is performed at the two major source smelters that use batch copper converting technology. Instead, the matte is first quenched with water to form solid granules of copper matte. These matte granules are then ground to a finer texture and fed to the flash converting furnace. This furnace differs significantly in design and operation from the cylindrical batch converters operated at the other U.S. smelters. Also, only one flash converting furnace is needed at the area source smelter compared to multiple batch copper converter vessels at the other smelters.

Most of the process fugitive emissions associated with smelters using batch copper converting do not occur in the flash copper converting process. There are no crane transfers of molten material in open ladles between the smelting, converting, and anode refining departments. In addition, because flash copper converting is conducted in an enclosed vessel as a continuous process, no process off-gases escape capture, which occurs during the cyclic rolling-out of the batch copper converters for charging, skimming, and pouring.

While potential HAP emissions are overall lower from flash copper converting due to the elimination of emissions

points, the blister copper produced by the continuous flash copper converter may contain higher levels of residual metal HAP impurities than that produced by the batch copper converting technology. At the smelter using flash copper converting, however, the anode furnaces and casting operations are vented to emissions control equipment that is effective in controlling metal HAP emissions from these processes that follow the flash copper converting process.

### 3. New Sources

Record-high commodity prices for refined copper are motivating companies to expand copper production capacity in the U.S. and other countries to meet higher demand. The announcement of several new copper mine projects in the southwestern U.S. indicates that primary copper production will be increasing in the foreseeable future. For example, three copper mine projects currently are planned for development in southeastern Arizona. Production at two of these mines is planned to start within the next several years.

Increased copper mine development in the U.S. does not automatically trigger the building of new primary copper smelters. For instance, there have been no announcements that new smelters are planned to be built or would be

necessary to process the copper ore from the new mine developments. The output from these new mines will probably be processed using the alternative hydrometallurgical process because of economic and technological advantages. This wet process involves leaching, solvent extraction, and electrowinning steps instead of the high temperature smelting and converting steps used for the pyrometallurgical process.

The hydrometallurgical process is conducted in facilities built near the mine site. This process is preferable for low copper content ores because of lower production costs compared to the costs of smelting and refining the ore. Further, because it is a wet process and does not use any operations involving high temperatures and the handling of molten materials, the potential for emission of HAP metals to the atmosphere is very low. Hydrometallurgical processes are not included in the Primary Copper Smelting area source category.

Although smelters will not be used in association with the new mining projects mentioned above, we recognize that the record-high commodity prices for refined copper may encourage construction of new primary copper smelters in the U.S. Currently, copper smelting technologies other

than the batch and flash copper converting technologies are commercially available and are being selected for new smelters in other countries. Because these smelting technologies are more technologically advanced and cost effective in producing copper than the technologies currently employed at the three existing U.S. smelters, they would likely be used in the U.S. if new smelters are constructed.

B. What HAP are emitted from primary copper smelters?

Metals other than copper naturally occur in copper ore deposits, and some of these metals are listed as HAP under CAA section 112(b). In general, the HAP metals that have been found in larger quantities in copper ore mined and smelted in the U.S. are lead and arsenic. Lesser quantities of antimony, beryllium, cadmium, chromium, cobalt, manganese, mercury, nickel, and selenium have also been detected. As previously mentioned, the primary copper smelting area source category was listed for regulation under CAA sections 112(c)(3) and 112(k)(3)(B) due to emissions of the urban HAP arsenic, cadmium, chromium, nickel, and lead.

HAP metals in the copper ore are released into the atmosphere in the form of PM during certain high temperature operations. The composition and quantity of the potential



HAP emissions from a given smelter are directly related to the level of metal impurities in the copper concentrate processed at the smelter.

C. What are the proposed requirements for area sources?

1. Applicability and Compliance Dates

The proposed NESHAP applies to each new or existing primary copper smelter that is an area source of HAP. Because the one existing area source is already operating subject to PM control requirements that are the same as those in this proposed NESHAP, we are proposing that an existing affected source comply by [DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]. A new affected source would be required to comply by [DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER] or upon initial startup, whichever is later.

2. Emissions Limits and Work Practice Standards

The owner or operator of an existing area source would be required to control HAP emissions from copper concentrate drying, copper concentrate smelting, copper matte drying and grinding, copper matte converting, and copper anode refining and casting operations. The proposed NESHAP requires that gases and fumes generated by these processes be captured and vented through one or more PM

control devices. Total PM emissions from the captured gas streams from all of these processes would be limited on a smelter-wide basis to no greater than 89.5 pounds per hour (lb/hr) as determined on a 24-hour average basis.

Similarly, the owner or operator of a new area source would be required to control HAP emissions from all primary copper smelting processes, including but not limited to those processes mentioned above that are applicable to the new sources's smelter design. The proposed standard requires that gases and fumes generated by these processes at a new source be captured and vented through one or more PM control devices. However, instead of the 89.5 lb/hr emissions limit, we would require a new source to achieve a facility input-based emission rate for total PM no greater than a daily (24-hour) average of 0.6 pounds per ton (lb/ton) of copper concentrate feed charged to the smelting vessel.

The proposed NESHAP also require a secondary gas system for each smelting vessel and converting vessel that collects the gases and fumes released during the molten material transfer operations and conveys the collected gas stream to a control device. Capture systems that collect gas and fumes and convey them to a control device also

would be required for operations in the anode refining and casting department.

### 3. Compliance Requirements

For existing area sources, we are proposing to apply the testing, monitoring, recordkeeping, and reporting requirements for PM emissions currently applicable to the only existing area source smelter. Compliance with the proposed emissions limit for existing area sources would be based on the daily average PM emissions measured by a PM CEMS. The owner or operator would submit reports of deviations within two weeks of the date the deviation occurred, monthly summaries of monitoring data, and semiannual monitoring reports. We are also proposing that the owner or operator comply with the requirements in 40 CFR 63.6(e)(3) for SSM plans and reports.

The owner or operator of an existing area source would be required to comply with notification requirements in 40 CFR 63.9 of the General Provisions (40 CFR part 63, subpart A). In the notification of compliance status required in 40 CFR 63.9(h), the owner or operator would be allowed to certify initial compliance with the proposed emissions limit based on monitoring data collected during the previous month. The owner or operator would also certify

initial compliance with the work practice standards.

The owner or operator of a new primary copper smelter would be required to install, operate, and maintain a CEMS to measure and record PM concentrations and gas stream flow rates for each emissions source subject to the emissions limit. The proposed NESHAP requires that the PM CEMS meet EPA Performance Specification 11 (40 CFR part 60, appendix B). A device to measure and record the weight of the copper concentrate feed charged to the smelting furnace each day also would be required. The owner or operator would be required to continuously monitor PM emissions, determine and record the daily (24-hour) value for each day, and calculate and record the daily average pounds of total PM per ton of copper concentrate feed charged to the smelting furnace. A monthly summary report of the daily averages of PM per ton of copper concentrate feed charged to the smelting vessel also would be required. All notification, monitoring, testing, operation and maintenance, recordkeeping, and reporting requirements of the part 63 General Provisions would apply to the owner or operator of a new source.

D. What is our rationale for selecting the proposed standards for area sources?

## 1. Selection of Pollutants

The HAP emissions from primary copper smelters originate primarily from metal impurities that naturally occur in copper ore concentrates. During the smelting process and the subsequent converting process to produce blister copper, these HAP metal species either are eliminated in the molten slag tapped from the process vessels or are vaporized and discharged in the off-gases vented from the vessels. HAP metals may also be emitted from other processes that contain molten materials, such as anode refining and the casting operation. Upon cooling of the process off-gas, the volatilized HAP metal species condense, form aerosols, and behave as PM.

The composition and amounts of metal HAP in the copper ore concentrates can vary from one smelter to another, as well as over time at individual smelters depending on the ore deposit from which the copper ore concentrate is obtained. This inherent variability and unpredictability of the metal HAP compositions and amounts in copper ore concentrates have a material effect on the composition and amount of HAP metals in the process off-gas emissions at the smelter. As a result, establishing individual numerical emissions limits for each HAP metal species is

difficult given the level of uncertainty about the individual metal HAP compositions of the copper ores processed at a smelter.

An emissions characteristic common to all smelters and similar source categories is that metal HAP are a component of the PM contained in the process off-gas discharged from smelting, converting, anode refining, and casting operations. Emissions limits established to achieve control of PM will also achieve control of metal HAP other than mercury. Consequently, we chose to use PM as a surrogate for the urban HAP, which are metal HAP, in establishing emissions limits. This approach is consistent with the approach we used for the emissions limits established in the NESHAP for primary copper smelters in 40 CFR part 63, subpart QQQ.

## 2. Selection of Proposed Standards

We are aware of only one existing primary copper smelter that is an area source. This smelter was built in the mid-1990's and uses flash copper converting technology. The smelter was originally designed to use the most advanced controls that were available at that time to achieve emissions reductions that met or exceeded levels required to comply with the existing State and Federal

requirements to control PM emissions. Extensive emissions controls and work practices are used for all process and fugitive PM emissions sources at this smelter to control PM and therefore metal HAP emissions.

The existing area source smelter operates emissions control systems that capture and control off-gases from the copper concentrate drying, smelting, converting, and anode refining and casting operations. All process gases from these copper smelting operations are routed to control devices (for many sources, a series of control devices) that achieve high-efficiency removal of PM and metal HAP from the gas stream before being discharged through a single main stack. Also included in the combined gas stream vented through this main stack are captured gases and fumes from the smelting and converting furnaces' tapping ports and launders and from the matte drying and grinding operations.

The work practices described above to control PM and metal HAP emissions are requirements in this area source smelter's current title V permit. The smelter's ability to demonstrate compliance with these requirements on a long-term basis indicates that the facility owner has the technical and economic capabilities to implement these

requirements, which are highly effective in controlling PM and metal HAP emissions. Therefore, we conclude that these requirements reflect GACT for primary copper area source smelters.

The source has a total PM emissions limit for the main stack gases. This facility-wide PM emissions limit for the smelter process off-gases is based on the operating practices and the emissions control system configurations used at this area source smelter. The maximum allowable PM emissions level for the smelter as measured at the main stack is 89.5 lb/hr based on a 24-hour average. A continuous sampling system that measures PM is installed in the main stack. Results from this continuous sampler are used to calculate the 24-hour average for each day of the month with a summary of the 24-hour averages reported to the State each month for the previous month.

PM and metal HAP emissions are effectively controlled at this existing area source by its compliance with the facility-wide emissions limit and work practice standards mentioned above, which are requirements in its title V permit. Although these requirements in certain aspects are specific to this facility, we think it is appropriate to adopt these requirements as the standards for existing



sources of primary copper production because this is the only existing area source in this source category.

We are not certain that a new smelter would use flash copper converting technology, and if it did, that it would be in the configuration installed at the existing smelter. A new smelter may use one of the other commercially available continuous smelting and converting technologies that are based on bath smelting technology or an innovative new continuous copper smelting and converting process that is not yet in commercial operation.

Because a new primary copper smelter may use a distinctly different converting technology from the flash copper converting technology, the format of the emissions limit we are proposing to adopt as an existing source requirement is not appropriate for a new source. For reasons set forth below, we believe that an input-based emissions limit is appropriate for new sources.

Emissions limits based on production levels can be input-based (i.e., based on raw materials consumed in making a product) or output-based (i.e., based on amount of product made). Because the composition and quantity of the potential metal HAP emissions from a given smelter are directly related to the level of metal impurities in the

copper concentrate, we decided that an input-based emissions limit would be appropriate for new sources. Using the nominal design feed charge rate for the smelting furnace, we calculated that the 89.5 lb/hr PM emissions limit for the primary copper smelter would correspond to an input-based PM emissions limit of 0.6 lb/ton of copper concentrate feed. We are proposing that compliance with this emissions limit be determined on a daily basis. Because this input-based emissions limit is derived from the 89.5 lb/hr daily average emissions limit, it would ensure that emissions from a new source are limited at a level equivalent to the emissions limit for the existing source.

### 3. Selection of Proposed Compliance Requirements

For existing area sources, we are proposing to adopt the testing, monitoring, recordkeeping, and reporting requirements for PM emissions currently applicable to the only existing area source smelter. We reviewed these requirements as specified in the source's title V permit and concluded that these requirements are sufficient to ensure compliance with the proposed facility-wide emissions limit and work practice standards. These requirements include a PM CEMS, reports of deviations, monthly summaries

of monitoring data, and semiannual monitoring reports.

For new area sources, we would apply the notification, testing, monitoring, operation and maintenance, recordkeeping, and reporting requirements in the General Provisions (40 CFR part 63, subpart A). The General Provisions (40 CFR part 63, subpart A) are necessary for effective application of the standard for new area sources and are therefore incorporated into the proposed rule. These requirements are sufficient to ensure compliance with the proposed emissions limit and work practice standards.

Because permit information for the existing facility does not identify requirements for an SSM plan, we are proposing that the owner or operator of an existing or new area source be required to comply with the SSM requirements in 40 CFR 63.6(e)(3). Section 63.6(e)(3)(ix) of the General Provisions requires that the title V permit for a source include provisions for an SSM plan. According to Section 63.6(e)(3)(ix), the permit may fulfill this requirement by citing the relevant paragraphs of 40 CFR 63.6(e). Revisions made to the plan do not constitute permit revisions and the elements of the plan are not applicable requirements under 40 CFR 70.2 and 71.2.

#### **V. Proposed NESHAP for Secondary Copper Smelting Area**

**Sources****A. What source category is affected by the proposed NESHAP?****1. Source Category Description**

A significant amount of copper metal consumed in the U.S. has been produced historically by remelting, smelting, and refining scrap materials containing copper. These scrap materials can be recycled post-industrial wastes, such as copper trimmings from manufacturing processes or post-consumer wastes such as recovered old consumer products containing copper. Copper metal produced from copper scrap is referred to as "secondary copper."

There is a variety of types of copper scrap with varying copper contents. High-quality unalloyed copper scrap often contains more than 99 percent copper and is remelted directly. Other types of copper scrap have lower copper contents and must be processed before they can be reused in manufacturing copper products. Types of copper scrap with lower copper contents include scrap from copper alloys (e.g., brass and bronze scrap) and industrial residuals that contain copper (e.g., skimmings, ashes, refining slag, flue dusts). The prices paid for copper scrap materials depend on the commodity price for refined

copper and the type of scrap. In general, prices for scrap copper track refined copper price trends with higher prices being paid for copper scrap categories with higher copper purity.

Copper scrap referred to as old scrap is obtained from used, worn out, or obsolete copper products that are recycled or recovered. This scrap is obtained by collecting discarded, dismantled or obsolete copper-containing products at the end of their service lives. Another source of old scrap is copper building materials salvaged from demolition sites. Examples of old scrap include recycled electrical cable and wiring, copper plumbing pipes from building demolitions, windings from worn electric motors, salvaged automobile radiators, dismantled printed circuit boards, obsolete telephone switching gear, recovered ammunition casings, and copper-based spent catalysts. In general, the copper content of old scrap ranges from less than 30 to more than 98 percent copper depending on the source. Old scrap typically requires some pre-treatment, such as cleaning and consolidation, in preparation for smelting.

The other major category of copper scrap, referred to as new scrap, is scrap generated during manufacturing

processes and from other copper materials that have never entered the consumer markets. Examples of new scrap include machining turnings, stampings, and cuttings from manufacturing processes, as well as defective products pulled prior to shipment. New scrap can often be recycled directly with little or no pretreatment. New scrap may be collected and sold to third-party secondary copper processors or may be recycled directly within the manufacturing facility that generates the copper scrap.

Facilities that process copper scrap can be classified into three general categories: smelters, ingot makers, and remelters. The listing of this source category included only secondary copper smelters, which are the subject of this proposed NESHAP. Secondary copper smelters process copper scrap in a blast furnace and converter or use another pyrometallurgical purification process to produce anode copper from copper scrap, including low grade copper scrap. The distinguishing features of secondary copper smelters are the type of pyrometallurgical process used and the final product, which is anode copper. Most U.S. copper smelters charged low grade copper scrap along with fluxes into a cupola blast furnace followed by additional purification in copper converters. One facility processed

low-grade copper scrap using a combined smelting and converting process conducted in a top blown rotary converter. All of these plants fire refined the copper to produce anode copper.<sup>3</sup>

Secondary copper smelters may have on-site pretreatment processes to clean and consolidate the copper scrap in preparation for smelting. Concentrating can be performed either manually or mechanically and can include sorting, stripping, shredding, and magnetic separation. The scrap can be further refined using sweating, insulation burning, drying, flotation, and leaching. The type of pretreatment processes used depends on the type and source of the copper scrap.

A similarity with primary copper producers is that the molten copper is transferred from the converting vessel to an anode furnace for additional fire refining to further remove residual impurities and oxygen. The molten copper from the anode furnace is poured into molds to produce solid copper called anodes. The anode copper is sent to a copper refinery, either on-site or at another location, where it is further purified using an electrolytic process

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<sup>3</sup> There are no existing secondary copper smelters as defined in the proposed rule.

to obtain the high-purity copper that is used for manufacturing products.

Secondary copper smelters are part of the broad standard industrial classification (SIC) code 3341 (secondary nonferrous metals), which also includes copper, brass, and bronze ingot makers as well as producers of several other secondary nonferrous metals. The area source category listing of secondary copper smelting, a small subset of SIC 3341, was based on the contribution of secondary copper smelters to emissions of the urban HAP cadmium, lead and dioxin. For several national emission standards, EPA has defined source categories and applicability based on the types of processes in place rather than defining applicability in terms of the broad definition of an SIC code. In this case, ingot makers and other producers of certain secondary nonferrous metals (other than secondary copper smelters as defined in this proposed rule) are not included in the secondary copper smelting area source category.

## 2. Existing Sources

The secondary copper smelting plants that served as the basis for emissions estimates for the secondary copper smelting area source category were Gaston Recycling



Industries (Gaston, South Carolina), Franklin Smelting and Refining (Philadelphia, Pennsylvania), Cerro Copper Products (Sauget, Illinois), Southwire Company (Carrollton, Illinois), and Chemetco, Inc. (Hartford, Illinois). All of these plants have shut down, and no similar secondary copper smelters have been constructed. There are also no existing major source secondary copper smelters.

Secondary copper smelting was once a thriving industrial sector in the U.S. with smelters operating in many regions of the country. However, the last of the smelters closed in the late 1990's and early 2000's during a period of depressed prices for refined copper, increased production costs, and other site-specific factors. In addition, scrap copper collected in the U.S. was increasingly exported to China and other countries with little or no processing, which increased the prices U.S. secondary copper smelters paid for scrap copper. The last U.S. secondary copper smelter (Chemetco) closed in 2001. Our information indicates that equipment and operations for secondary copper production at these previously operating smelters have all been dismantled. Therefore, there is not any, nor would there ever be, an existing source secondary copper smelter that would be subject to the proposed rule.

### 3. New Sources

While there are no existing secondary copper smelters in the U.S., secondary copper smelters are operating in several other countries. Secondary copper smelting technologies currently being developed and utilized are significantly different from the processes once used at U.S. smelters. These new technologies provide better control of air emissions and produce inherently lower HAP emission levels because they do not have many of the fugitive emissions points associated with the older smelting technologies.

Record-high commodity prices for refined copper are motivating companies to expand primary copper production capacity in the U.S. If the rebound in refined copper commodity prices is stimulating the development of primary copper production, it is possible that these higher copper prices will also encourage the return of the secondary copper smelting industry to the U.S. New secondary copper smelting operations could be built by independent companies to produce refined copper for sale or by companies that use copper as a raw material in their manufacturing processes (e.g., electrical wire and cable manufacturers).

The average price spread between refined copper and

copper scrap has returned to the levels in the mid-1990's during which secondary copper smelters operated profitably in the U.S. The price spread levels that supported the U.S. secondary copper smelting industry in the past might have changed in the late 1990's because of new cost considerations such as more stringent pollution abatement requirements, increased competition for the U.S. scrap copper supply by foreign smelters, and other factors. Based on the information we have collected, however, we conclude that the economic conditions for secondary copper smelters are more favorable today than they were in the late 1990's and early 2000's when the last U.S. smelters closed. Therefore, it is possible that the industry will reemerge in the U.S.

B. What HAP are emitted from secondary copper smelters?

Copper scrap that is collected and reprocessed may contain HAP metals, including the urban HAP metals cadmium and lead, for which secondary copper smelters are listed for regulation under CAA sections 112(c)(3) and 112(k)(3)(B). HAP metals occur in the scrap as a result of other metals used in conjunction with copper for certain industrial and consumer applications, such as the use of lead solders for assembling copper plumbing pipes. Metal

HAP can be released into the atmosphere in the form of PM during certain high-temperature copper scrap smelting operations.

As with metal HAP emissions from primary copper smelters (see section IV.B of this preamble), the presence and concentrations of specific HAP metals in a copper scrap material vary depending on the material source.

Consequently, the potential HAP emissions from a given secondary copper smelter are directly related to the level of HAP metals in the copper scrap material processed.

Secondary copper smelters were also listed for emissions of the urban HAP dioxin. Dioxins may form when chlorinated plastics in the scrap are heated to high temperatures in smelting furnaces.

In EPA's March 2005 Dioxin Reassessment (available at <http://www.epa.gov/ncea/pdfs/dioxin/2k-update/>), secondary copper smelters were identified as contributors to the U.S. inventory of dioxin emissions in 1995 when three secondary copper smelters were operating. Secondary copper smelters have a high potential for dioxin emissions because of the abundance of chlorinated plastics in the copper scrap that is used as feed material.

C. What are the proposed requirements for area sources?

### 1. Applicability and Compliance Dates

The proposed NESHAP apply to each new secondary copper smelter that is an area source of HAP. A new affected source would be required to comply by [DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER] or upon initial startup, whichever is later.

### 2. Emission Limit and Work Practice Standards

We are proposing that any new secondary copper smelter apply a capture and control system for PM emissions to any process operation that melts copper scrap, alloys, or other metals or that processes molten material. Emissions of PM from the control device must not exceed 0.002 grains per dry standard cubic feet (gr/dscf). The owner or operator must also prepare and follow a written plan for the selection, inspection, and pretreatment of copper scrap to minimize, to the extent practicable, the amount of oil and plastics in the scrap that is charged to smelting or melting furnaces.

### 3. Compliance Requirements

Fabric filters (baghouses) are expected to be needed to meet the proposed emission limit. Consequently, we are proposing monitoring requirements that include bag leak detection systems when baghouses are used. The owner or

operator would keep records to document conformance with requirements in the written plan for the selection, inspection, and pretreatment of copper scrap. If a control device other than a baghouse is used, the owner or operator would submit a monitoring plan to the permitting authority for approval. The monitoring plan would include performance test results showing compliance with the PM emission limit, a plan for operation and maintenance of the control device, a list of operating parameters that will be monitored, and operating parameter limits that were established during the performance test.

The owner or operator would conduct a performance test to demonstrate initial compliance with the PM emissions limit and report the results in the notification of compliance status required by 40 CFR 63.9(h) of the General Provisions. The PM concentration would be determined using EPA Method 5 (for negative pressure baghouses) or Method 5D (for positive pressure baghouses) in 40 CFR part 60, appendix A. Repeat performance tests would be required every 5 years to demonstrate compliance with the PM emissions limit. All requirements of the part 63 General Provisions would apply to the owner or operator of a new source.

D. What is our rationale for selecting the proposed standards for area sources?

1. Selection of Proposed Standards

As discussed above, there is not and will never be any existing area source secondary copper smelter. Copper production processes at all of the previously existing secondary copper smelters have been dismantled.

Construction or reconstruction would be necessary should there be an attempt to restart secondary copper production at any of these facilities. Currently there is not any such construction or reconstruction at these facilities, and construction or reconstruction that occurs after this proposal would qualify the operation as a new source.

Because there is not, nor will there ever be, any existing area source secondary copper smelter, a standard for existing area sources of secondary copper smelters would never have any application. We do not believe that Congress intended that we issue regulations that will not have any application. Therefore, we are not proposing standards for existing area sources of secondary copper smelters.

In the 1990 Amendments to the CAA, Congress directed EPA to identify 30 HAP that present the greatest threat to

public health in the largest number of urban areas (urban HAP). (See sections 112(c)(3) and 112(k)(3)(B) of the CAA.) The 1990 Amendments also directed EPA to list sufficient area source categories to account for 90 percent or more of the emissions of each urban HAP and to address the urban HAP emissions from the listed sources through regulation. Secondary copper smelting area sources contributed to emissions of the urban HAP dioxin, cadmium and lead; therefore, their urban HAP emissions are among those that EPA is directed to address. Pursuant to this statutory obligation, we have studied this area source category and have concluded that emissions of dioxin, cadmium and lead from these sources have been eliminated and therefore adequately addressed by the shutdown of these facilities.

However, we are proposing standards for new sources to ensure that any potential emissions of these urban HAP from future secondary copper smelting area sources will be appropriately controlled. For new secondary copper smelters, we reviewed technologies that have been applied to similar scrap melting processes in the U.S. For example, almost all electric arc furnaces at steel mills that melt and recycle iron and steel scrap are controlled



by baghouses, several are subject to a PM limit of 0.002 gr/dscf or less, and over 90 percent of the PM test data collected for the entire industry show that PM emissions are less than 0.002 gr/dscf. In addition, baghouses were identified as the most effective PM control device used for emissions from cupolas (the same type of furnace as that used at secondary copper smelters) that melt metal scrap at iron and steel foundries. The NESHAP for iron and steel foundries (40 CFR part 63, subpart EEEEE) established a PM limit of 0.002 gr/dscf for new cupolas that melt metal scrap. We chose to apply a PM limit of 0.002 gr/dscf as GACT to all melting furnaces and other furnaces that process molten metal at a new secondary copper smelter. This limit has been demonstrated as achievable by both new and existing similar furnaces that process metal scrap, and it represents the level of performance provided by the recommended technology for PM in this application (i.e., a baghouse). The GACT determination for new sources is also consistent with the United Nations Environment Programme's guidelines on performance standards for new secondary copper smelters (available at [http://www.pops.int/documents/batbep\\_advance/intersessional\\_work/default.htm](http://www.pops.int/documents/batbep_advance/intersessional_work/default.htm).) The guidelines recommend high

efficiency PM removal systems (such as fabric filters or baghouses) and state that such systems should achieve a PM level of 5 milligrams per cubic meter (0.002 gr/dscf) for new secondary copper smelters. As discussed earlier, the last secondary copper smelter (as defined for this source category) shut down several years ago, and new secondary copper facilities are not likely to use the older technology that would subject them to this proposed rule. However, we are requesting comment on whether the proposed standard for new sources is accurate representation of GACT for new sources.

The United Nations Environment Programme has published guidelines on best available techniques to reduce dioxin emissions from metallurgical processes, including secondary copper smelting available at [http://www.pops.int/documents/batbep\\_advance/intersessional\\_work/default.htm](http://www.pops.int/documents/batbep_advance/intersessional_work/default.htm). One of the pollution prevention measures is pre-sorting of feed materials (scrap) to reduce the presence of oils, plastics, and chlorine. Other pollution prevention methods include thermal de-coating and de-oiling, milling and grinding with density or pneumatic separation, and stripping cable insulation. Emission control devices include fume collection with high

efficiency PM removal (such as fabric filters). The stringent proposed PM emissions limit (0.002 gr/dscf) would ensure that high efficiency control devices for PM would be used. We selected the pollution prevention measures and the PM emissions limit as GACT for dioxin emissions from new secondary copper smelters. The owner or operator of any new smelter must develop and implement a written plan for the selection, inspection, and pretreatment of copper scrap to minimize, to the extent practicable, the amount of oil and plastics in the scrap that is charged to the smelting furnace. This is accomplished by preparing and following a scrap management plan, training scrap inspectors, and keeping records to show the plan is implemented.

## 2. Selection of Proposed Compliance Requirements

We are proposing to base the compliance requirements on the testing, monitoring, operation and maintenance, recordkeeping, and reporting requirements in the General Provisions (40 CFR part 63, subpart A). The General Provisions are necessary for effective application of the standard for new area sources and are therefore incorporated into the proposed rule. These requirements are sufficient to ensure compliance with the proposed

emissions limit and work practice standards.

**VI. Proposed NESHAP for Primary Nonferrous Metals - Zinc, Cadmium, and Beryllium Area Sources**

A. What area source category is affected by the proposed NESHAP?

The Primary Nonferrous Metals—Zinc, Cadmium, and Beryllium source category includes establishments primarily engaged in smelting and refining of three nonferrous metals -- zinc, cadmium, and beryllium. There are only two primary zinc smelters that are currently operating in the U.S., and both are area sources. One of the smelters is subject to the NSPS for primary zinc smelters (40 CFR part 60, subpart Q), which applies to SO<sub>2</sub> emissions from roasters and PM emissions from sintering machines. Both facilities have title V operating permits including requirements for the control of PM and SO<sub>2</sub>.

There are no cadmium smelters in the U.S., and we do not expect any to be built in the future. Cadmium minerals are not found alone in commercially viable deposits. Instead, cadmium is produced as a by-product of zinc smelting processes. Only one of the two U.S. primary zinc smelters produces cadmium as a by-product; the other plant shutdown and dismantled their cadmium recovery process

equipment.

All new and existing primary beryllium production facilities are subject to the National Emissions Standard for Beryllium at 40 CFR part 61, subpart C. Recent data indicate that there are no primary beryllium production facilities (major or area sources) currently operating in the U.S. The last U.S. beryllium production facility, which was a major source due to emissions of tetrachloroethylene, shutdown all primary beryllium operations at its manufacturing plant in June 2000. In the event that this plant restarts the primary beryllium production operation, the plant would probably continue to be a major source rather than an area source due to tetrachloroethylene emissions.

B. What is primary zinc production and what HAP are emitted?

Primary zinc smelters process zinc sulfide ore concentrates to produce metallic zinc or zinc oxide. Primary zinc production facilities also process zinc scrap and zinc oxide materials, and although these may be considered secondary zinc processes, they are part of this area source category when they are located at the primary zinc production facility. The two U.S. primary zinc

producers process zinc sulfide ore concentrate by smelting the ore in a roaster to produce impure zinc oxide (calcine) followed by hydrometallurgical reduction processes that include leaching, purification, and electrolysis to produce metallic zinc. During roasting, most of the sulfur in the ore concentrate is removed as  $\text{SO}_2$ . The roaster off-gases containing PM and  $\text{SO}_2$  are processed through a series of gas cleaning devices to remove the PM (cyclones, electrostatic precipitators, and venturi scrubbers), and the cleaned gas is routed to a sulfuric acid plant where the  $\text{SO}_2$  is converted to sulfuric acid. Any HAP metals that volatilize during the roasting process are removed by the PM control equipment prior to the acid plant. The PM removal equipment is an important and inherent part of the production process because the PM must be removed before the gas is processed in the acid plant (e.g., to protect and maintain the catalyst in the acid plant).

In the electrolytic deposition process, the desulfurized calcine from the roaster is first processed through a series of leaching and purification operations to dissolve the zinc oxide into an electrolyte solution. The solution is poured into cells where metallic zinc is recovered in a batch operation by passing current through

the electrolyte solution causing zinc to deposit on an aluminum cathode.

During the acid leaching step, cadmium is precipitated from the solution by adding zinc dust. The cadmium precipitate is filtered and formed into a cake. The cake may be sold as a recyclable product or further purified and cadmium metal recovered using an electrolytic process similar to that used for zinc. Recovered cadmium may be melted in a furnace and poured into casting molds. Molten cadmium can also be charged to a second oxidizing furnace that converts cadmium metal into cadmium oxide.

Although HAP metals are present in the PM from the roaster's exhaust, the roaster is not a significant source of HAP metal emissions because of the extensive cleaning of the gas to remove PM prior to the acid plant. Melting furnaces also generate metal HAP emissions and PM emissions because of the high temperatures used to heat the materials. These furnaces are used to melt the pure zinc from electrolysis, alloys, and zinc scrap and dust for recycling. Both plants use baghouses to control PM and HAP metal emissions from the various melting furnaces. The HAP metals that have been reported from primary zinc production include arsenic, cadmium, lead, manganese, mercury, and

nickel, all of which are identified by EPA as urban HAP. As previously mentioned, the primary nonferrous area source category was listed for regulation under CAA sections 112(c)(3) and 112(k)(3)(B) due to emissions of all of these HAP except for mercury.

C. What are the proposed requirements for primary zinc production area sources?

1. Applicability and Compliance Dates

The proposed NESHAP applies to the owner or operator of a new or existing primary zinc production facility that is an area source of HAP emissions. Because the two existing sources are already operating subject to PM control requirements that are the same as those in the proposed NESHAP, we are proposing that an existing affected source comply by [DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]. A new affected source would be required to comply by [DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER] or upon initial startup, whichever is later.

2. Emissions Limits and Work Practice Standards

We are proposing a work practice standard for roasters at new and existing sources. The proposed NESHAP requires the owner or operator to exhaust roaster off-gases to PM



removal equipment and a sulfuric acid plant. Bypassing the sulfuric acid plant during charging of the roaster would be prohibited.

Emissions limits are proposed for the different types of melting furnaces at primary zinc production facilities. For existing sources, we are proposing PM limits of 0.93 lb/hr for zinc cathode melting furnaces; 0.1 lb/hr for furnaces that melt zinc dust, chips, and off-specification zinc materials; and 0.228 lb/hr for the combined exhaust from furnaces that melt zinc scrap and alloys. For new sources, we are proposing a PM limit of 0.005 gr/dscf for the furnaces mentioned above. In addition, we are proposing limits of 0.014 gr/dscf for anode casting furnaces and 0.015 gr/dscf for cadmium melting furnaces at new and existing sources.

Emissions limits also are proposed for any sintering machine at a new or existing area source facility. If there is a sintering machine, the proposed NESHAP requires the owner or operator to comply with the PM limit at 40 CFR 60.172 and the opacity limit at 40 CFR 60.174(a) of the NSPS for primary zinc smelters (40 CFR part 60, subpart Q).

### 3. Proposed Compliance Requirements

We are proposing to adopt for existing area sources

certain monitoring, recordkeeping, and reporting requirements already applicable to the two existing facilities that relate to PM emissions control. The owner or operator of an existing area source would monitor baghouse pressure drop, perform routine baghouse maintenance, and keep records to document compliance. In addition, we are proposing to require repeat performance tests (at least once every 5 years) for existing sources. The proposed NESHAP also would require a continuous opacity monitoring system (COMS) for any sintering machine in accordance with 40 CFR 60.175.

The owner or operator of an existing area source would be required to comply with initial notification requirements in 40 CFR 63.9 of the General Provisions. In the notification of compliance status required by 40 CFR 63.9(h), the owner or operator would be allowed to certify initial compliance with the proposed HAP emissions limits based on the results of a PM performance test for each of the regulated emissions sources conducted within the past 5 years. The owner or operator would also certify initial compliance with the work practice standards.

If an existing source has not conducted a performance test to demonstrate compliance with the emissions limits

for a furnace, the proposed NESHAP requires that the facility conduct a test according to the requirements at 40 CFR 63.7 using EPA Method 5 (40 CFR part 60, appendix A) to determine the PM concentration or an alternative method previously approved by the permitting authority. For a sintering machine, the owner or operator would conduct a performance test according to the procedures in 40 CFR 60.176(b) using EPA Method 5 to determine the PM concentration and EPA Method 9 (40 CFR part 60, appendix B) to determine the opacity of emissions.

As required in the existing permits, the owner or operator would be required to submit a notification to the permitting authority of any deviation from the requirements of the NESHAP. The notification must describe the probable cause of the deviation and any corrective actions or preventative measures taken. Existing facilities would also submit semiannual monitoring reports which clearly describe any deviations. Records of all required monitoring data and support information also would be required. The owner or operator of an existing area source would also be required to comply with the requirements in 40 CFR 63.6(e)(3) of the General Provisions for SSM plans and reports.

The owner or operator of a new area source would be required to install and operate a bag leak detection system for each baghouse used to comply with a PM emissions limit. In addition, we are proposing to require repeat PM performance tests (once every 5 years) for each furnace at a new source. The owner or operator would also be required to install, operate, and maintain a COMS for each sintering machine according to EPA Performance Specification 1 (40 CFR part 60, appendix B).

The owner or operator of a new affected source would demonstrate initial compliance with the applicable emissions limits by conducting a performance test according to the requirements at 40 CFR 63.7 and using EPA 5 or 5D (40 CFR part 60, appendix A), as applicable, to determine the PM concentration. An initial performance test would also be required for a sintering machine according to the methods and procedures in 40 CFR 60.176(b). All of the testing, monitoring, operation and maintenance, recordkeeping, and reporting requirements of the part 63 General Provisions would apply to a new area source.

D. What is our rationale for selecting the proposed standards for primary zinc production area sources?

1. Selection of PM as a Surrogate for Metal HAP

Because the types and quantities of metal HAP vary in zinc ore, it is not practical to establish individual standards for each specific metal HAP listed as an urban HAP that could be present in zinc ore. Instead, we decided to establish standards using PM as a surrogate for these urban HAP metal emissions. Controlling PM emissions will also control the metal HAP since these compounds are contained within the PM, i.e., they are in the particulate form as opposed to the gaseous form. The available air pollution controls for the particulate HAP metals are the same as those used for PM controls at primary zinc production plants. These controls capture particulate HAP metals non-preferentially along with other PM, thus making PM a reasonable surrogate for these HAP metals. We have used this approach in several other NESHAP in which PM was determined to be a surrogate for the HAP metals in the PM.

## 2. Selection of Proposed Standards

The release of metal HAP from primary zinc production occurs from three types of emissions sources: the roasting of the zinc sulfide ore; the use of furnaces to melt zinc, materials containing zinc (e.g., dust, scrap), alloys, and cadmium; and the operation of sintering machines. The high temperatures inherent in the roasters, melting furnaces,

and sintering machines are sufficient to temporarily volatilize metals that can then become entrained in the exhaust gases from the process. The other major processes performed at primary zinc production facilities include leaching, purification, and electrowinning. These are wet processes and are not considered to be sources of metal HAP emissions.

Roasters. The proposed rule requires that metal HAP generated by roasters under high temperatures be removed with PM in the off-gases. The off-gases from roasters would be controlled by removing PM and HAP metals in the form of PM in a series of PM removal devices, and then the SO<sub>2</sub>-rich off-gases would be exhausted to a sulfuric acid plant. These controls, including a sulfuric acid plant, have been installed at the two existing sources to comply with the National Ambient Air Quality Standards for SO<sub>2</sub>, as well as the NSPS for primary zinc smelters (40 CFR part 60, subpart Q) for one source.

While the sulfuric acid plants were originally installed to recover sulfuric acid as a by-product and to control SO<sub>2</sub> emissions, the inherent design and operating requirements of these plants also provide effective control of PM and metal HAP contained in roaster off-gases. The

sulfuric acid production process involves the catalytic conversion of the  $\text{SO}_2$  contained in the off-gases to produce liquid sulfuric acid. To optimize the process performance and prevent extensive damage to the catalysts and other critical process equipment, the first step of the process requires that the roaster off-gases be pre-cleaned and conditioned. These operations involve first passing the gas stream through multiple control devices for the removal of PM and to reduce gas stream temperature. By using multiple PM control devices in series (multicyclones, electrostatic precipitators, and venturi scrubbers) to treat roaster exhaust gases before entering the sulfuric acid plant, very high overall PM and metal HAP removal efficiencies are achieved. Consequently, there is little or no PM or metal HAP emitted in the tail gas from the sulfuric acid plant. The primary constituent of the final tail gas from the acid plant is sulfuric acid mist, which is not a HAP.

Both of the existing primary zinc production facilities treat their roaster off-gases using multiple control and conditioning technologies to remove PM and metal HAP prior to the roaster off-gases entering the catalytic conversion beds. Because neither facility's

permit contains non-sulfuric acid PM limits and because we have no PM emissions test data, we determined that a work practice standard was appropriate for the control of roaster off-gases. The work practice standard requires the roaster's off-gases be exhausted to PM removal equipment and a sulfuric acid plant, thus ensuring a consistently high level of metal HAP control for the off-gases. In light of the effective control of PM and metal HAP at these two existing facilities, we decided that the work practice standard currently being implemented at these facilities represents GACT for existing and new area sources of primary zinc production.

We are not proposing emissions limits for HAP metals or PM in the tail gases from the sulfuric acid plants because we do not believe such limits are necessary. The vast majority of PM exiting with the tail gas is sulfuric acid mist, which is not a HAP. Because rigorous treatment of the roaster off-gases to remove PM and metal HAP is a necessary operating condition for the sulfuric acid plant, requiring that cleaned gases be vented to a sulfuric acid plant ensures that emissions of HAP metals are either nonexistent or limited to trace amounts.

Furnaces. Potential sources of metal HAP emissions at



primary zinc production facilities include a variety of high temperature furnaces operated for the purpose of melting zinc; cadmium; zinc scrap, dust, or chips; alloying metals; and producing anodes used in the electrowinning process. All of the melting furnaces currently in operation at the two existing primary zinc production facilities control emissions with baghouses, which are highly effective in controlling PM and metal HAP emissions. Baghouses are widely used throughout the metallurgical industry to control emissions from primary and secondary metal processes. Therefore, we conclude that GACT for controlling metal HAP emissions from the furnaces at primary zinc production facilities is proper operation of a baghouse. We believe that the emissions limits for these furnaces that we are proposing to adopt reflect the level of emissions control that can be achieved by well-operated and well-maintained baghouses.

The two existing primary zinc production facilities currently hold title V operating permits issued by their respective State permitting agencies; both permits contain PM emissions limits for all furnace operations. We determined that the PM emissions limits applicable to these emissions sources are consistent with the expected

performance of such operations controlled by well-operated and maintained baghouses. The PM emissions limits vary somewhat among furnace operations, which is indicative of differences in processes associated with the function of each furnace rather than any real difference in performance of the baghouse control devices. Therefore, we decided that the PM emissions limits in the operating permits represent the performance capabilities of baghouses at existing affected sources. Because baghouse technology is the best technology that can be applied to these sources, the permit limits that apply to the existing furnaces controlled by baghouses also represent the performance that can be expected at new sources.

We are proposing a PM emissions limit of 0.93 lb/hr for zinc cathode melting furnaces at existing facilities. This emissions limit is the permit limit in effect for the zinc cathode melting furnace at one of the primary zinc production facilities. The other facility has a permit limit for PM of 0.67 lb/hr. We selected the 0.93 lb/hr limit because it is achievable by zinc cathode melting furnaces at both facilities, both facilities use baghouses to reduce PM emissions, and there is very little difference in the magnitude of the PM emissions limits for the two

plants. The proposed PM limit for zinc cathode melting furnaces at existing facilities will ensure that the baghouses will be operated and maintained in a manner that will continue to effectively reduce PM emissions and metal HAP emissions.

We considered trying to develop an emissions limit in a PM concentration format, but decided against that approach because concentration limits were not available for both facilities, and there was no basis on which to derive a concentration-based limit that would be appropriate for zinc cathode melting furnaces at both plants. We also considered a limit expressed as lb/ton melted in the furnace. However, our review and discussions with plant personnel indicated that a short term melting rate is difficult to determine and can be subject to significant inaccuracies. The plants do not weigh the charge materials, and melting is a batch process that involves charging the furnace, melting, and tapping. Also, the furnaces are operated intermittently. All of these factors make it difficult to determine an accurate melting rate in tons per hour for the furnace during a performance test run that typically lasts for one hour.

For new sources, it is not practical to prescribe an

emissions limit in lb/hr because we do not know what the size and configuration of the process will be. One of the primary zinc facilities has a concentration limit of 0.005 gr/dscf for the zinc cathode melting furnace that is applied in combination with their lb/hr PM emissions limit. This concentration limit has been met by baghouses in many similar applications at existing sources, such as electric arc furnaces at steel plants (most are subject to a limit of 0.0052 gr/dscf), iron and steel foundries, and other metal processing operations. We chose the limit of 0.005 gr/dscf as GACT for new zinc cathode melting furnaces because it can be achieved by properly designed and operated baghouses.

One of the facilities has a baghouse applied to treat the combined exhaust from electric furnaces used to melt scrap zinc and zinc alloys. This baghouse is subject to a PM emissions limit of 0.228 lb/hr. The other facility operates a smaller furnace for melting zinc dust, zinc chips, and off-specification zinc materials. This furnace is equipped with a baghouse and is subject to a PM emissions limit of 0.1 lb/hr. These emissions limits will ensure that the GACT technology (baghouses) or equally effective control device will be used, well-maintained, and

well-operated to control PM and HAP metal emissions from these furnaces at existing sources. Therefore, we are proposing to adopt these emissions limits as the standards for existing sources of primary zinc production.

As with a zinc cathode furnace at a new source, it is similarly impractical to prescribe PM emissions limits in lb/hr for any of the other melting furnaces because we do not know the size and configuration of any new process, which is necessary information for establishing such a limit. Further, we have no test data, nor do the title V permits for existing sources contain limits in concentration units that might be applied to these types of melting furnaces for new sources. However, like zinc cathode melting furnaces, these furnaces are used to melt materials containing zinc. Thus, the concentration of PM emissions is expected to be similar to that from the zinc cathode melting furnace. Consequently, we are proposing to adopt the 0.005 gr/dscf limit that is required for the zinc cathode melting furnace at one existing facility as the standard in the proposed rule for furnaces melting zinc scrap, alloys, dust, chips, or off-specification zinc materials at new sources. This limit has been demonstrated as achievable at other similar melting processes, and in

this case, it can be achieved by properly designed and operated baghouses.

Only one primary zinc production facility recovers cadmium and operates a cadmium melting furnace. The other facility has stopped cadmium production and dismantled the equipment. Emissions from the one cadmium melting furnace are controlled by a baghouse, which is subject to a PM limit of 0.015 gr/dscf. Similarly, only one facility operates an anode casting furnace, and this furnace is controlled by a baghouse and subject to a PM emissions limit of 0.014 gr/dscf. Because PM and metal HAP emissions are effectively controlled at these furnaces, we are proposing to include as the standards for both new and existing sources the PM limits of 0.015 gr/dscf for cadmium melting furnaces and 0.014 gr/dscf for anode casting furnaces. These limits are achievable by using baghouses, the technology we have identified as GACT for new and existing sources, and will ensure effective control for PM and HAP metals.

Sintering machine. Although neither of the existing primary zinc production facilities currently operates a sintering machine, it is possible that one could be installed at a new or existing facility. The NSPS for

primary zinc production established a PM emission limit (0.022 gr/dscf) for new sintering machines. We continue to believe that this PM emissions limit will ensure that HAP metals in the PM emissions from new sintering machines will be well controlled. We have no reason to believe that this limit is infeasible, impractical or inappropriate. Therefore, we chose this emissions limit as GACT for sintering machines at new and existing area sources.

### 3. Selection of Proposed Compliance Requirements

The title V permits of the two existing area source smelters include general recordkeeping and reporting requirements for the facility and detailed testing and monitoring requirements for PM emissions from the regulated emissions sources. We reviewed these requirements and concluded that they are sufficient to ensure proper operation and maintenance of baghouses and compliance with the proposed work practice standards for existing sources. For example, both plants monitor pressure drop to ensure baghouses are operating properly, and there is little benefit from retrofitting additional monitoring technology to these existing sources.

We are proposing to require bag leak detection systems to monitor the performance of baghouses at new area

sources. These systems can be incorporated into the design and operation for new sources and would not require retrofitting or duplicative monitoring as would be the case if they were applied to existing sources.

The part 63 General Provisions are necessary for effective application of the standard to existing sources and are therefore incorporated into the proposed rule. We would require that the plants comply with the initial notification requirements in 40 CFR 63.9. The initial notification requirements would be supplemented by other reporting requirements that include notification of any deviation and semiannual monitoring reports, along with recordkeeping requirements for baghouse maintenance, monitoring data, and other supporting information.

Section 63.6(e)(3)(ix) of the General Provisions requires that the title V permit for a source include provisions for an SSM plan. Because permit information for the existing facilities do not identify requirements for an SSM plan, the proposed NESHAP require the owner or operator of an existing area source to comply with the SSM requirements in 40 CFR 63.6(e)(3). According to 40 CFR 63.6(e)(3), the permit may fulfill this requirement by citing the relevant paragraphs of 40 CFR 63.6(e).



Revisions made to the plan do not constitute permit revisions and the elements of the plan are not applicable requirements under 40 CFR 70.2 and 71.2.

The part 63 General Provisions are necessary for effective application of the standard for new area sources and are, therefore, incorporated into the proposed rule. For new area sources, we are proposing to apply the notification, testing, monitoring, operation and maintenance, recordkeeping, and reporting requirements in the part 63 General Provisions. These requirements are sufficient to ensure compliance with the proposed emissions limit and work practice standards.

E. What is primary beryllium production and what HAP are emitted?

In the primary beryllium production process, the ores bertrandite and beryl are converted to a beryllium sulfate and processed into beryllium hydroxide at the mine site. A primary beryllium production facility processes the beryllium hydroxide to form metallic beryllium, beryllium alloy, and/or beryllium oxide.

Primary beryllium production processes differ according to the end product (i.e., metallic beryllium, beryllium oxide, alloys). For metallic beryllium, the

beryllium hydroxide is first dissolved in an ammonia-fluoride solution. The solution is neutralized, heated to remove aluminum, and filtered. The solution is then crystallized; using centrifugation and light washing, the crystals are continuously removed and remaining solution is sent to an evaporator. The crystals (ammonium fluoroberyllate) are charged into furnaces where they are decomposed to beryllium fluoride and ammonium fluoride. The ammonium fluoride is recycled to the process, and the molten beryllium fluoride is removed from the furnace and solidified; magnesium is added to facilitate reduction. The mixture is heated, causing beryllium to separate and float on top of the slag. Both the beryllium and slag are poured into a graphite pot to solidify. Afterwards, the product undergoes crushing and water leaching in a ball mill. The resulting beryllium pebbles contain 98 percent beryllium along with slag and unreacted magnesium. Impurities are removed by melting the pebbles in induction furnaces under vacuum. Excess magnesium and beryllium fluoride from the slag vaporize and are collected in filters. Nonvolatiles, such as beryllium oxide and magnesium fluoride, separate from the metal as dross by adhering to the bottom of the crucibles. The purified

metal is then poured and cast into ingots.

To make beryllium oxide, the beryllium hydroxide is dissolved in water and sulfuric acid, resulting in a beryllium sulfate solution. The solution is filtered, evaporated, and crystallized. The crystals are separated and the beryllium sulfate is calcined in furnaces to produce beryllium oxide. To make beryllium-copper master alloys, beryllium hydroxide, electrolytic copper, and carbon are melted in an electric arc furnace. The alloy is then melted and cast into ingots. The master alloy ingots are re-melted with additional copper and other elements to produce alloys with the desired metallic characteristics.

The Toxics Release Inventory indicates that the metal HAP emitted from beryllium production processes include primarily beryllium with lower levels of the urban HAP nickel and lead. HAP metals are emitted from the high temperature furnaces that melt and process beryllium compounds and those that are used for producing beryllium alloys. These furnaces include fluoride decomposition furnaces that produce beryllium fluoride from crystals of ammonium fluoroberyllate, reduction furnaces that process beryllium fluoride to produce beryllium metal that is subsequently processed into pebbles, vacuum induction

furnaces used to purify the beryllium pebbles, furnaces that calcine beryllium sulfate to produce beryllium oxide, and electric arc furnaces used to produce beryllium alloys such as beryllium-copper master alloys. Baghouses (some in combination with high efficiency particulate air filters) and scrubbers are used to control emissions of PM and HAP metals from these furnaces.

F. What are the proposed requirements for primary beryllium production area sources?

1. Applicability and Compliance Dates

We are proposing to adopt as GACT for beryllium production area sources all of the requirements in the National Emission Standard for Beryllium at 40 CFR part 61, subpart C. Because any existing area source would have already been operating in accordance with the part 61 standard, we are proposing that the owner or operator of an existing source comply with the area source NESHAP by [DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]. The owner or operator of a new area source would be required to comply by [DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER] or at startup, whichever is later.

2. Emissions Limits

We are proposing to adopt the part 61, subpart C standard as the area source NESHAP for both new and existing primary beryllium production facilities. The part 61, subpart C standard limits emissions from extraction plants (i.e., primary beryllium production facilities) to 10 grams (0.022 lb) of beryllium over a 24-hour period. Alternatively, the owner or operator of a beryllium production facility may request to meet an ambient concentration limit instead of the emissions limit.

### 3. Compliance Requirements

We are proposing to include in the proposed NESHAP the testing, monitoring, recordkeeping, and reporting requirements in 40 CFR part 61, subpart C. The owner or operator would be required to conduct a performance test using EPA Method 103 or 104 (40 CFR part 61, appendix B) to demonstrate initial compliance with the emissions limit. The proposed NESHAP would not allow any changes, which could potentially increase emissions above the level determined in the most recent performance test until a new emissions test has been estimated by calculation and reported to EPA. An owner or operator subject to the ambient concentration limit must operate air sampling sites to continuously monitor the concentrations of beryllium in

the ambient air according to an EPA-approved plan. The owner or operator must comply with recordkeeping requirements in the proposed NESHAP and the testing, monitoring, recordkeeping, and reporting requirements in the part 61 General Provisions in 40 CFR part 61, subpart A. We are also proposing that the owner or operator comply with certain requirements in the part 63 General Provisions in 40 CFR part 63, subpart A, including the requirements for SSM plans and reports in 40 CFR 63.6(e)(3). We have explicitly identified in the proposed NESHAP the applicable General Provisions of both 40 CFR parts 61 and 63.

G. What is our rationale for selecting the proposed standards for primary beryllium area sources?

1. Selection of Pollutants

The major metal HAP reported by the only primary beryllium plant when it was operating its primary beryllium process was beryllium. Nickel and lead, which are urban HAP, were the only other metal HAP reported (at much smaller quantities than beryllium). Each of these metal HAP are components of PM, and the PM emission controls installed for beryllium control other metal HAP in the PM. Consequently, we chose to use beryllium as a surrogate for all of the HAP metal in the PM. The emissions limits for

beryllium and the PM controls installed to meet the limits will ensure that all HAP metals in the PM from primary beryllium processes are well controlled.

## 2. Selection of Proposed Standards

Currently no primary beryllium production facilities operate in the U.S. In recent years, there has been only one U.S. producer, and this facility shutdown all primary beryllium operations in June 2000. This plant was a major source due to emissions of tetrachloroethylene. In the event this plant restarted the primary beryllium production operation, the plant would probably continue to be a major source rather than an area source due to emissions of tetrachloroethylene. Although all area source primary beryllium production facilities that previously existed have ceased to operate, we do not have information that would suggest that beryllium production cannot be restarted at these facilities. Therefore, we see a need to establish standards for existing sources in the proposed rule to regulate any previously existing source that may restart its beryllium production. Similarly, we do not have any information that would suggest that there are unlikely to be any new area source production facilities. Therefore, we also need to establish standards for new sources.

We are proposing to adopt the part 61, subpart C standard as the NESHAP for the primary beryllium production area source category. The part 61, subpart C standard, which applies to new and existing major and area sources, is a stringent and effective air emissions regulation. As a result of the part 61, subpart C standard, the last primary beryllium production facility in the U.S. was highly effective in controlling beryllium, PM, and metal HAP emissions. As shown in this facility, to meet the part 61, subpart C standard, beryllium processing operations were controlled using multiple air cleaning systems that were also highly effective in controlling emissions of PM and HAP metals. For example, beryllium oxide furnaces were controlled by baghouses, packed tower scrubbers and demisters; alloy induction furnaces were controlled by baghouses and cartridge filters; reduction furnaces were controlled by wet cyclones and venturi scrubbers; and vacuum casting was controlled by cyclones, baghouses, and cartridge filters. The highly effective control of beryllium, PM, and metal HAP emissions at this last facility indicates that the part 61, subpart C emissions limits are effective as well as feasible. Although that facility was a major source, we have no reason to believe



that such control is not appropriate for an area source. The fact that the part 61, subpart C standard already applies to both major and area sources suggest that they are appropriate for area sources as well. Therefore, we have determined that the emissions limits in the part 61, subpart C standard represents GACT for new and existing beryllium production area sources.

### 3. Selection of Proposed Compliance Requirements

We have reviewed the performance test and monitoring requirements in the part 61, subpart C standard and reconfirmed their adequacy and propriety for ensuring compliance with the proposed emission limits. Therefore, we are including the part 61, subpart C performance test and monitoring requirements in the proposed rule.

The General Provisions applicable to the subpart C standard (40 CFR part 61, subpart A), are necessary for effective application of the subpart C standard and are therefore incorporated into the proposed rule as well. We are also incorporating certain provisions in the General Provisions of part 63, subpart A to address aspects of the proposed rule not covered by the part 61 General Provisions. Specifically, we need to incorporate certain provisions in 40 CFR 63.1 and 63.5 that delineate

applicability, construction, and reconstruction. However, we are not applying provisions within 40 CFR 63.1 and 63.5 that are already covered by part 61 General Provisions. We are proposing to apply the provisions in 40 CFR 63.1(a) except for the provisions in 40 CFR 63.1(a)(11) and (12) regarding notices, time periods, and postmarks; 40 CFR 63.1(b) except paragraph (b)(3); 40 CFR 63.1(c); 40 CFR 63.1(e); and 40 CFR 63.5 except for the references to 40 CFR 63.6 for compliance procedures and the references to 40 CFR 63.9 for notification procedures.

Because the part 61 General Provisions do not include requirements for SSM plans and reports, we are also proposing to require the owner or operator of a new or existing area source to comply with the requirements in 40 CFR 63.6(e)(3). According to 40 CFR 63.6(e)(3), the permit may fulfill this requirement by citing the relevant paragraphs of 40 CFR 63.6(e). Revisions made to the plan do not constitute permit revisions and the elements of the plan are not applicable requirements under 40 CFR 70.2 and 71.2.

## **VII. Statutory and Executive Order Reviews**

### **A. Executive Order 12866: Regulatory Planning and Review**

Under Executive Order 12866 (58 FR 51735,

October 4, 1993), this action is a "significant regulatory action" because it may raise novel legal or policy issues. Accordingly, EPA submitted this action to OMB for review under Executive Order 12866, and any changes made in response to OMB recommendations have been documented in the docket for this action.

B. Paperwork Reduction Act

The proposed NESHAP for Polyvinyl and Copolymers Production Area Sources do not impose any new information collection burden. New and existing plants that are area sources would be required to comply with the same testing, monitoring, reporting, and recordkeeping requirements as those in the National Emission Standards for Vinyl Chloride (40 CFR part 61, subpart F), to which these area sources are currently subject, and the information collection requirements in the part 61 NESHAP General Provisions (40 CFR part 61, subpart A), which are incorporated into the proposed NESHAP. The OMB has previously approved the information collection requirements in 40 CFR part 61, subpart F, under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. and has assigned OMB control number 2060-0071, EPA Information Collection Request (ICR) number 0186.10.

A copy of the OMB-approved ICR for the National Emission Standards for Vinyl Chloride and Beryllium may be obtained from Susan Auby, Collection Strategies Division, U.S. EPA (2822T), 1200 Pennsylvania Ave., NW, Washington, DC 20460, by e-mail at [auby.susan@epa.gov](mailto:auby.susan@epa.gov), or by calling (202) 566-1672.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, disclose, or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

The OMB control numbers for EPA's regulations in 40 CFR part 63 are listed in 40 CFR part 9.

The proposed requirements for primary beryllium production facilities in the proposed NESHAP for Primary Nonferrous Metals Area Sources do not impose any new information collection burden. New and existing plants that are area sources would be required to comply with the same testing, monitoring, recordkeeping, and reporting requirements as those in the National Emission Standards for Beryllium (40 CFR part 61, subpart C), to which these area sources are currently subject, and the information collection requirements in the part 61 General Provisions (40 CFR part 61, subpart A), which are incorporated into the proposed NESHAP for these sources. The OMB has previously approved these information collection requirements in 40 CFR part 61, subpart C, under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. and has assigned OMB control number 2060-0092, EPA ICR number 0193.08.

A copy of the OMB-approved ICR for the National Emission Standards for Vinyl Chloride and Beryllium may be obtained from Susan Auby, Collection Strategies Division, U.S. EPA (2822T), 1200 Pennsylvania Ave., NW, Washington,

DC 20460, by e-mail at [auby.susan@epa.gov](mailto:auby.susan@epa.gov), or by calling (202) 566-1672.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, disclose, or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR part 63 are listed in 40 CFR part 9.

The information requirements in the proposed NESHAP for Polyvinyl Chloride and Copolymers Production Area

Sources, Primary Copper Smelting Area Sources, Secondary Copper Smelting Area Sources, and Primary Nonferrous Metals-Zinc, Cadmium, and Beryllium Area Sources have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. The ICR document prepared by EPA has been assigned EPA ICR number 2240.01.

The proposed information collection requirements are based on the current title V permitting requirements for existing sources and the information collection requirements in the part 63 General Provisions (40 CFR part 63, subpart A), most of which are incorporated into the proposed NESHAP for new sources. The ICR document includes the burden estimates for all applicable General Provisions. These recordkeeping and reporting requirements are mandatory pursuant to section 114 of the CAA (42 U.S.C. 7414). All information submitted to EPA pursuant to the information collection requirements for which a claim of confidentiality is made is safeguarded according to CAA section 114(c) and the Agency's implementing regulations at 40 CFR part 2, subpart B.

The PM testing, monitoring, recordkeeping, and reporting requirements with which existing primary copper smelting and primary zinc smelting area sources would be

required to comply under the proposed NESHAP are the same as the requirements that are in these facilities' current title V operating permits. The only new information collection requirements that would apply to these area sources would consist of initial notifications and SSM plan, reporting, and recordkeeping requirements. Any new primary zinc production facility, primary copper smelter, or secondary copper smelter area source would be subject to all information collection requirements in the part 63 General Provisions.

The annual burden for this information collection averaged over the first 3 years of this ICR is estimated to total 9 labor hours per year at a cost of \$771 for the one existing primary copper smelting area source and 18.5 labor hours per year at a cost of \$1,566 for the two existing primary zinc smelting area sources. No capital/startup costs or operation and maintenance costs are associated with the proposed requirements. No costs or burden hours are estimated for new primary copper smelters, secondary copper smelters, or primary zinc production area sources because no new sources are estimated during the 3-year period of the ICR. No new sources have been constructed in more than 10 years, no new construction has been announced,



and we have no indication there will be any new sources in the next 3 years.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, disclose, or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR part 63 are listed in 40 CFR part 9.

To comment on the Agency's need for this information, the accuracy of the provided burden estimates, and any

suggested methods for minimizing respondent burden, including the use of automated collection techniques, EPA has established a public docket for this action, which includes this ICR, under Docket ID number EPA-HQ-OAR-2006-0510. Submit any comments related to the ICR for the proposed rules to EPA and OMB. See "Addresses" section at the beginning of this notice for where to submit comments to EPA. Send comments to OMB at the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street NW, Washington, DC 20503, Attention: Desk Officer for EPA. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after [INSERT DATE OF PUBLICATION OF THE PROPOSED RULES IN THE FEDERAL REGISTER], a comment to OMB is best assured of having its full effect if OMB receives it by [INSERT DATE 30 DAYS AFTER PUBLICATION OF THE PROPOSED RULES IN THE FEDERAL REGISTER]. The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment

rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule would not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and small governmental jurisdictions.

For the purposes of assessing the impacts of the proposed area source NESHAP on small entities, small entity is defined as: (1) a small business that meets the Small Business Administration size standards for small businesses found at 13 CFR 121.201 (less than 1,000 employees for primary copper smelting and less than 750 employees for PVC and copolymers production, secondary copper smelting, and primary nonferrous metals manufacturing); (2) a small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of the proposed rules on small entities, I certify that this action will not have a significant economic impact on a substantial

number of small entities. There would not be adverse impacts on existing area sources of PVC and copolymer production facilities, primary copper smelters, and non-ferrous metal production facilities because the proposed rules do not create any new requirements or burdens other than minimal notification requirements for existing sources. There would be no adverse impacts on existing secondary copper area sources because there are no existing sources in the category. Although the proposed NESHAP contain emission control requirements for new area sources in all four source categories, we are not aware of any new sources being constructed now or planned in the near future, and consequently, we did not estimate any impacts for new sources.

We continue to be interested in the potential impacts of the proposed action on small entities and welcome comments on issues related to such impacts.

#### 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 to the private sector, of \$100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small

governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

EPA has determined that the proposed rules 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 one year. As discussed earlier in this preamble, the estimated expenditures for the private sector in any 1 year are less than \$2,500. Thus, the proposed rules are not subject to the requirements of sections 202 and 205 of the UMRA. In addition, the proposed rules do not significantly or uniquely affect small governments. The proposed rules contain no requirements that apply to such governments, impose no obligations upon them, and would not result in expenditures by them of \$100 million or more in any one year or any disproportionate impacts on them. Therefore, the proposed rules 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 proposed rules do not have federalism implications. They would not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. The proposed rules impose requirements on owners and operators of specified area sources and not State and local governments. Thus, Executive Order 13132 does not apply to the proposed rules.

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

Executive Order 13175 (65 FR 67249, November 6, 2000), requires EPA to develop an accountable process to ensure

"meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." The proposed rules do not have tribal implications, as specified in Executive Order 13175. They would not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175. The proposed rules impose requirements on owners and operators of specified area sources and not tribal governments. Thus, Executive Order 13175 does not apply to the proposed rules.

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

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



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

EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5-501 of the Executive Order has the potential to influence the regulation. The proposed rules are not subject to the Executive Order. They are based on control technology and not on health or safety risks.

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

The proposed rules are not a "significant energy action" as defined in Executive Order 13211 (66 FR 28355, May 22, 2001) because they are not likely to have a significant adverse effect on the supply, distribution, or use of energy. Further, we have concluded that these proposed rules are not likely to have any adverse energy effects because energy requirements would remain at existing levels. No additional pollution controls or other equipment that would consume energy are required by the proposed rules.

I. National Technology Transfer Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Public Law No. 104-113, Section 12(d), 15 U.S.C. 272 note) directs EPA to use voluntary consensus standards (VCS) in its regulatory activities, unless to do so would be inconsistent with applicable law or otherwise impractical. The VCS are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by VCS bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency does not use available and applicable VCS.

The proposed rules involve technical standards. The EPA cites the following standards: EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 3A, 3B, 4, 5, 5D, and 9 in 40 CFR part 60, appendix A; and Performance Specification (PS) 1 and 11 in 40 CFR part 60, appendix B. Consistent with the NTTAA, EPA conducted searches to identify voluntary consensus standards in addition to these EPA methods. No applicable VCS were identified for EPA Methods 1A, 2A, 2D, 2F, 2G, 5D or 9. The search and review results are in the docket for this rule.

The search identified one VCS as an acceptable alternative to EPA Method 3B. The method ASME PTC 19.10-

1981, "Flue and Exhaust Gas Analyses," (incorporated by reference-see 40 CFR 63.14) is cited in this rule for its manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of the exhaust gas. This part of ASME PTC 19.10-1981 is an acceptable alternative to EPA Method 3B.

The standard ASTM D6216 (1998), "Standard Practice for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications," was designated an acceptable alternative for the design specifications given in EPA's PS-1 (promulgated in March 1983). As a result, EPA incorporated ASTM D6216-98 by reference into PS-1 as the design specifications for opacity monitors in August 2000.

The search for emissions measurement procedures identified 13 other VCS. The EPA determined that these 13 standards identified for measuring emissions of the HAP or surrogates subject to emission standards in this proposed rule were impractical alternatives to EPA test methods. Therefore, EPA does not intend to adopt these standards for this purpose. The reasons for the determinations for the 13 methods are in the docket for this proposed rule.

For the methods required or referenced by the proposed

rules, a source may apply to EPA for permission to use alternative test methods or alternative monitoring requirements in place of any required testing methods, performance specifications, or procedures under §63.7(f) and §63.8(f) of subpart A of the General Provisions.

National Emission Standards for Hazardous Air Pollutants  
for Area Sources: Polyvinyl Chloride and Copolymers  
Production, Primary Copper Smelting, Secondary Copper  
Smelting, and Primary Nonferrous Metals—Zinc, Cadmium, and  
Beryllium

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List of Subjects in 40 CFR Part 63

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

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Dated:

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Stephen L. Johnson,  
Administrator.

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

**PART 63--[AMENDED]**

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

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

**Subpart A--[AMENDED]**

2. Section 63.14 is amended by revising paragraph (i)(1) to read as follows:

§63.14 Incorporations by reference.

\* \* \* \* \*

(i) \* \* \*

(1) ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]," IBR approved for §§63.309(k)(1)(iii), 63.865(b), 63.3166(a)(3), 63.3360(e)(1)(iii), 63.3545(a)(3), 63.3555(a)(3), 63.4166(a)(3), 63.4362(a)(3), 63.4766(a)(3), 63.4965(a)(3), 63.5160(d)(1)(iii), 63.9307(c)(2), 63.9323(a)(3), 63.11155(e)(3), 11162(f)(3)(iii) and (f)(4), 11163(g)(1)(iii) and (g)(2), and Table 5 of subpart DDDDD of this part.

\* \* \* \* \*

3. Part 63 is amended by adding subpart DDDDDD to read as follows:

**Subpart DDDDDD--National Emission Standards for Hazardous Air Pollutants for Polyvinyl Chloride and Copolymers Production Area Sources**

Sec.

**Applicability and Compliance Dates**

63.11140 Am I subject to this subpart?

63.11141 What are my compliance dates?

**Standards and Compliance Requirements**

63.11142 What are the standards and compliance requirements for new and existing sources?

**Other Requirements and Information**

63.11143 What General Provisions apply to this subpart?

63.11144 What definitions apply to this subpart?

63.11145 Who implements and enforces this subpart?

**Applicability and Compliance Dates**

§63.11140 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate a plant specified in 40 CFR 61.61(c) that produces polyvinyl chloride (PVC) or copolymers and is an area source of hazardous air pollutant (HAP) emissions. Your plant is an area source if it does not emit and does not have the potential to emit either 10 tons per year (tpy) or

more of any single HAP or 25 tpy or more of any combination of HAP.

(b) This subpart applies to each new or existing affected source. The affected source is the collection of all equipment and activities in vinyl chloride service necessary to produce PVC and copolymers. An affected source does not include portions of your PVC and copolymers production operations that meet the criteria in 40 CFR 61.60(b) or (c).

(1) An affected source is existing if you commenced construction or reconstruction of the affected source before [INSERT DATE OF PUBLICATION OF THIS PROPOSED RULE IN THE FEDERAL REGISTER].

(2) An affected source is new if you commenced construction or reconstruction of the affected source on or after [INSERT DATE OF PUBLICATION OF THIS PROPOSED RULE IN THE FEDERAL REGISTER].

(c) This subpart does not apply to research and development facilities, as defined in section 112(c)(7) of the Clean Air Act (CAA).

(d) You are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not otherwise required by law to obtain a permit under



40 CFR 70.3(a) or 40 CFR 71.3(a). Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart.

§63.11141 What are my compliance dates?

(a) If you own or operate an existing affected source, you must achieve compliance with the applicable provisions in this subpart by [DATE OF PUBLICATION OF FINAL RULE IN THE FEDERAL REGISTER].

(b) If you own or operate a new affected source, you must achieve compliance with the applicable provisions in this subpart by the dates in paragraphs (b)(1) and (2) of this section.

(1) If you startup a new affected source on or before [DATE OF PUBLICATION OF FINAL RULE IN THE FEDERAL REGISTER], you must achieve compliance with the applicable provisions in this subpart not later than [DATE OF PUBLICATION OF FINAL RULE IN THE FEDERAL REGISTER].

(2) If you startup a new affected source after [DATE OF PUBLICATION OF FINAL RULE IN THE FEDERAL REGISTER], you must achieve compliance with the provisions in this subpart upon startup of your affected source.

**Standards and Compliance Requirements**

§63.11142 What are the standards and compliance

requirements for new and existing sources?

You must meet all the requirements in 40 CFR part 61, subpart F, except for 40 CFR 61.62 and 40 CFR 61.63.

**Other Requirements and Information**

§63.11143 What General Provisions apply to this subpart?

(a) All the provisions in 40 CFR part 61, subpart A, apply to this subpart.

(b) The provisions in 40 CFR part 63, subpart A, applicable to this subpart are specified in paragraphs (b)(1) through (4) of this section.

(1) §63.1(a)(1) through (10).

(2) §63.1(b) except paragraph (b)(3), §63.1(c), and §63.1(e).

(3) §63.5 (preconstruction review and notification requirements) except for the references to §63.6 (compliance with standards and maintenance requirements) procedures and the references to §63.9 (notification requirements).

(4) §63.6(e)(3) except for §63.6(e)(3)(ix).

§63.11144 What definitions apply to this subpart?

The terms used in this subpart are defined in the CAA; 40 CFR 61.02; 40 CFR 61.61; and §63.2 for terms used in the applicable provisions of part 63, subpart A, as specified

in §63.11143(b).

§63.11145 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. EPA or a delegated authority such as a State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or tribal agency, then that Agency has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to a State, local, or tribal agency within your State.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the approval authorities contained in paragraphs (b)(1) through (4) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(1) Approval of an alternative means of emission limitation under 40 CFR 61.12(d).

(2) Approval of a major change to test methods under 40 CFR 61.13(h). A "major change to test method" is defined in §63.90.

(3) Approval of a major change to monitoring under 40

CFR 61.14(g). A "major change to monitoring" is defined in §63.90.

(4) Approval of a major change to recordkeeping/reporting under 40 CFR 61.10. A "major change to recordkeeping/reporting" is defined in §63.90.

4. Part 63 is amended by adding subpart EEEEEEE to read as follows:

**Subpart EEEEEEE--National Emission Standards for Hazardous Air Pollutants for Primary Copper Smelting Area Sources**  
Sec.

**Applicability and Compliance Dates**

63.11146 Am I subject to this subpart?

63.11147 What are my compliance dates?

**Standards and Compliance Requirements**

63.11148 What are the standards and compliance requirements for existing sources?

63.11149 What are the standards and compliance requirements for new sources?

**Other Requirements and Information**

63.11150 What General Provisions apply to this subpart?

63.11151 What definitions apply to this subpart?

63.11152 Who implements and enforces this subpart?

**Tables to Subpart EEEEEEE of Part 63**

Table 1 to Subpart EEEEEEE of Part 63--Applicability of General Provisions to Subpart EEEEEEE

**Applicability and Compliance Dates**§63.11146 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate a primary copper smelter that is an area source of hazardous air pollutant (HAP) emissions. Your primary copper smelter is an area source if it does not emit and does not have the potential to emit either 10 tons per year (tpy) or more of any single HAP or 25 tpy or more of any combination of HAP.

(b) This subpart applies to each new or existing affected source. The affected source is each primary copper smelter.

(1) An affected source is existing if you commenced construction or reconstruction of the affected source before [INSERT DATE OF PUBLICATION OF THIS PROPOSED RULE IN THE FEDERAL REGISTER].

(2) An affected source is new if you commenced construction or reconstruction of the affected source on or after [INSERT DATE OF PUBLICATION OF THIS PROPOSED RULE IN THE FEDERAL REGISTER].

(c) This subpart does not apply to research and development facilities, as defined in section 112(c)(7) of the Clean Air Act (CAA).

(d) If you own or operate an area source subject to this subpart, you must obtain a permit under 40 CFR part 70 or 40 CFR part 71.

§63.11147 What are my compliance dates?

(a) If you own or operate an existing affected source, you must achieve compliance with the applicable provisions of this subpart by [DATE OF PUBLICATION OF FINAL RULE IN THE FEDERAL REGISTER].

(b) If you own or operate a new affected source, you must achieve compliance with the applicable provisions of this subpart by the dates in paragraphs (b)(1) and (2) of this section.

(1) If you startup a new affected source on or before [DATE OF PUBLICATION OF FINAL RULE IN THE FEDERAL REGISTER], you must achieve compliance with the applicable provisions of this subpart not later than [DATE OF PUBLICATION OF FINAL RULE IN THE FEDERAL REGISTER].

(2) If you startup a new affected source after [DATE OF PUBLICATION OF FINAL RULE IN THE FEDERAL REGISTER], you must achieve compliance with the applicable provisions of this subpart upon startup of your affected source.

**Standards and Compliance Requirements**

§63.11148 What are the standards and compliance

requirements for existing sources?

(a) You must not discharge to the atmosphere through any combination of stacks or other vents captured process exhaust gases from the copper concentrate dryers, smelting vessels, converting vessels, matte drying and grinding plants, secondary gas systems, and anode refining and casting department that contain total particulate matter (PM) in excess of 89.5 pounds per hour (24-hour average).

(b) For each smelting vessel and converting vessel at your primary copper smelter, you must operate a secondary gas system that collects the gases and fumes released during the molten material transfer operations and conveys the collected gas stream to a control device.

(c) For operations in the anode refining and casting department at your primary copper smelter, you must meet the requirements in paragraphs (c)(1) and (2) of this section.

(1) For each vessel used to refine blister copper, remelt anode copper or anode scrap, or hold molten anode copper, you must collect the gases and fumes vented from the vessel and convey the collected gas stream to a control device.

(2) For each anode casting wheel, you must collect

gases and fumes vented when casting molten anode copper and convey the collected gas stream to a control device.

(d) You must operate a continuous emissions monitoring system (CEMS) to measure and record PM concentrations and gas stream flow rates for the exhaust gases discharged to the atmosphere from each emissions source subject to the emissions limit in paragraph (a) of this section. A single PM CEMS may be used for the combined exhaust gas streams at a point before the gases are discharged to the atmosphere. Measured results must be expressed as pounds of PM emitted per hour calculated at the end of each calendar day for the preceding 24-hour period. Collected PM CEMS data must be made available for inspection on a daily basis.

(e) You must demonstrate initial compliance with the PM emissions limit in paragraph (a) of this section based on the results of a 24-hour average from the PM CEMS. You may certify initial compliance with the PM emissions limit based on the results of sampling conducted during the previous month.

(f) You must submit to the permitting authority by the 20<sup>th</sup> day of each month a summary of the 24-hour averages for the previous month.



(g) You must submit written notification to the permitting authority of any deviation from the requirements of this subpart, including those attributable to upset conditions, the probable cause of such deviations, and any corrective actions or preventative measures taken. You must submit this notification within 14 days of the date the deviation occurred.

(h) You must submit semiannual monitoring reports to your permitting authority. All instances of deviations from the requirements of this subpart must be clearly identified in the reports.

(i) You must retain records of all required monitoring data and support information. Support information includes all calibration and maintenance records, all original strip charts or appropriate recordings for continuous monitoring instrumentation, and copies of all reports required by this subpart. For all monitoring requirements, the owner or operator must record the following information, where applicable:

(1) The date, place, and time of sampling or measurement, the date analyses were performed, the company or entity that performed the analyses, the analytical techniques or methods used, the results of such analyses,

and the operating conditions existing at the time of sampling or measurement.

(2) Records of activities performed to assure proper operation and maintenance of air emissions control systems and monitoring systems or devices.

§63.11149 What are the standards and compliance requirements for new sources?

(a) You must not discharge to the atmosphere through any combination of stacks or other vents process exhaust gases from the copper concentrate dryers, smelting vessels, converting vessels, matte drying and grinding plants, secondary gas systems, and anode refining and casting department that contain total PM in excess of 0.6 pound per ton of copper concentrate feed charged to the smelting vessel (24-hour average).

(b) For each smelting vessel and converting vessel at your primary copper smelter, you must operate a secondary gas system that collects the gases and fumes released during molten material transfer operations and convey the collected gas stream to a control device.

(c) For operations in the anode refining and casting department at your primary copper smelter, you must meet the requirements in paragraphs (c)(1) and (2) of this

section.

(1) For each vessel used to refine blister copper, remelt anode copper or anode scrap, or hold molten anode copper, you must collect the gases and fumes vented from the vessel and convey the collected gas stream to a control device.

(2) For each anode casting wheel, you must collect gases and fumes vented when casting molten anode copper and convey the collected gas stream to a control device.

(d) You must install, operate, and maintain a PM CEMS to measure and record PM concentrations and gas stream flow rates for the exhaust gases discharged to the atmosphere from each emissions source subject to the emissions limit in paragraph (a) of this section. You must also install, operate, and maintain a weight measurement system to measure and record the weight of the copper concentrate feed charged to the smelting furnace on a daily basis. A single PM CEMS may be used for the combined exhaust gas streams at a point before the gases are discharged to the atmosphere. For each PM CEMS used to comply with this paragraph, you must meet the requirements specified in paragraphs (d)(1) through (3) of this section.

(1) You must install, certify, operate, and maintain

the PM CEMS according to the applicable specification and testing requirements of EPA Performance Specification 11 in 40 CFR part 60, appendix B, and the quality assurance requirements of Procedure 2 in 40 CFR part 60, appendix F.

(2) You must conduct an initial performance evaluation of the PM CEMS according to the requirements of Performance Specification 11 in 40 CFR part 60, appendix B. Thereafter, you must perform the performance evaluations as required by Procedure 2 in 40 CFR part 60, appendix F.

(3) You must perform quarterly accuracy determinations and daily calibration drift tests for the PM CEMS according to Procedure 2 in 40 CFR part 60, appendix F.

(e) To demonstrate compliance with the PM emissions limit in paragraph (a) of this section, you must continuously monitor and record PM emissions, determine and record the daily (24-hour) value for each day, and calculate and record the daily average pounds of total PM per ton of copper concentrate feed charged to the smelting furnace. The daily average must be calculated at the end of each calendar day for the preceding 24-hour period. You must maintain records of the calculations of daily averages with supporting information and data, including

measurements of the weight of copper concentrate feed charged to the smelting vessel. Collected PM CEMS data must be made available for inspection on a daily basis.

(f) You must demonstrate initial compliance with the emissions limit in paragraph (a) of this section using the procedures in paragraph (e) of this section. You must complete this initial compliance demonstration within 180 days after startup and report the results in your notification of compliance status no later than 30 days after the end of the compliance demonstration.

(g) You must submit to the permitting authority by the 20<sup>th</sup> day of each month a summary of the daily average PM per ton of copper concentrate feed charged to the smelting vessel for the previous month.

#### **Other Requirements and Information**

##### 63.11150 What General Provisions apply to this subpart?

(a) If you own or operate an existing or new affected source, you must comply with the requirements of the General Provisions (40 CFR part 63, subpart A) as specified in Table 1 to this subpart and paragraphs (a)(1) through (4) of this section.

(1) If you own or operate an existing affected source and you certify initial compliance with the PM emissions

limit in §63.11148(a) based on monitoring data from the previous month, your notification of compliance status required by §63.9(h) must include this certification of compliance, signed by a responsible official: "This facility complies with the PM emissions limit in §63.11148(a) based on monitoring data that were collected during the previous month."

(2) If you conduct a new performance test to demonstrate initial compliance with the PM emissions limit in §63.11148(a), your notification of compliance status required by §63.9(h) must include the results of the performance test, including required monitoring data.

(3) Your notification of compliance status required by §63.9(h) must include this certification of compliance, signed by a responsible official, for the work practice standard in §63.11148(b): "This facility complies with the requirement to operate a secondary gas system for each smelting vessel and converting vessel in accordance with §63.11148(b)."

(4) Your notification of compliance status required by §63.9(h) must include this certification of compliance, signed by a responsible official, for the work practice standard in §63.11148(c): "This facility complies with the

requirement to capture gases from operations in the anode refining and casting department and duct them to a control device in accordance with §63.11148(c)."

(b) If you own or operate a new affected source, you must comply with the requirements of the General Provisions (40 CFR part 63, subpart A) as specified in Table 1 to this subpart and paragraphs (b)(1) through (3) of this section.

(1) Your notification of compliance status required by §63.9(h) must include the results of the initial performance test and monitoring data collected during the test that demonstrate compliance with the emissions limit in §63.11149(a).

(2) Your notification of compliance status required by §63.9(h) must include this certification of compliance, signed by a responsible official, for the work practice standard in §63.11149(b): "This facility complies with the requirement to operate a secondary gas system for each smelting vessel and converting vessel in accordance with §63.11149(b)."

(3) Your notification of compliance status required by §63.9(h) must include this certification of compliance, signed by a responsible official, for the work practice standard in §63.11149(c): "This facility complies with the

requirement to capture gases from operations in the anode refining and casting department and duct them to a control device in accordance with §63.11149(c)."

§63.11151 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in 40 CFR 63.2, and in this section as follows:

Anode refining and casting department means the area at a primary copper smelter in which anode copper refining and casting operations are performed. Emissions sources in the anode refining and casting department include anode refining furnaces, anode shaft furnaces, anode holding furnaces, and anode casting wheels.

Capture system means the collection of components used to capture gases and fumes released from one or more emissions points and then convey the captured gas stream to a control device. A capture system may include, but is not limited to, the following components as applicable to a given capture system design: duct intake devices, hoods, enclosures, ductwork, dampers, manifolds, plenums, and fans.

Control device means air pollution control equipment used to remove PM from a gas stream.

Converting vessel means a furnace, reactor, or other



type of vessel in which copper matte is oxidized to form blister copper.

Copper concentrate means copper ore that has been beneficiated or treated to remove waste and increase the copper content of the treated material.

Copper concentrate dryer means a vessel in which copper concentrates are heated in the presence of air to reduce the moisture content of the material. Supplemental copper-bearing feed materials and fluxes may be added or mixed with the copper concentrates fed to a copper concentrate dryer.

Copper concentrate feed means the mixture of copper concentrate, secondary copper-bearing materials, recycled slags and dusts, fluxes, and other materials blended together for feeding to the smelting vessel.

Copper matte means a material predominately composed of copper and iron sulfides produced by smelting copper ore concentrates.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to

any emissions limitation or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emissions limitation or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Matte drying and grinding plant means the area at a primary copper smelter in which wet granulated matte copper is ground in a mill, dried by blowing heated air through the mill, and then separated from the drying air stream using a control device such as a baghouse.

Primary copper smelter means any installation or any intermediate process engaged in the production of copper from copper sulfide ore concentrates through the use of pyrometallurgical techniques.

Responsible official means responsible official as defined at 40 CFR 70.2.

Secondary gas system means a capture system that collects the gases and fumes released when removing and transferring molten materials from smelting vessels and

converting vessels using tapping ports, launders, and other openings in the vessels. Examples of molten material include, but are not limited to: copper matte, slag, and blister copper.

Smelting vessel means a furnace, reactor, or other type of vessel in which copper ore concentrate and fluxes are melted to form a molten mass of material containing copper matte and slag. Other copper-bearing materials may also be charged to the smelting vessel.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof.

§63.11152 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as a State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or tribal agency, then that Agency has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to a State, local, or tribal agency within your State.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal

agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are listed in paragraphs (c)(1) through (4) of this section.

(1) Approval of an alternative non-opacity emission standard under §63.6(g).

(2) Approval of a major change to a test method under §63.7(e)(2)(ii) and (f). A "major change to test method" is defined in §63.90.

(3) Approval of a major change to monitoring under §63.8(f). A "major change to monitoring" is defined in §63.90.

(4) Approval of a major change to recordkeeping/reporting under §63.10(f). A "major change to recordkeeping/reporting" is defined in §63.90.

**Tables to Subpart EEEEEEE of Part 63**

TABLE 1 TO SUBPART EEEEEEE OF PART 63--APPLICABILITY OF GENERAL PROVISIONS TO SUBPART EEEEEEE

As required in §63.11150(a) and (b), you must comply with the requirements of the NESHAP General Provisions (40 CFR part 63, subpart A) as shown in the following table.

Citation	Subject	Applies to	Explanation
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		Subpart EEEEEE?	
63.1(a)(1), (a)(2), (a)(3), (a)(4), (a)(6), (a)(10)-(a)(12) (b)(1), (b)(3), (c)(1), (c)(2), (c)(5), (e)	Applicability	Yes.	
63.1(a)(5), (a)(7)-(a)(9), (b)(2), (c)(3), (c)(4), (d)	Reserved	No.	
63.2	Definitions	Yes.	
63.3	Units and Abbreviations	Yes.	
63.4	Prohibited Activities and Circumvention	Yes.	
63.5	Preconstruction Review and Notification Requirements	No.	
63.6(a), (b)(1)-(b)(5), (b)(7), (c)(1), (c)(2), (c)(5), (e)(1), (e)(3)(i), (e)(3)(iii)- (e)(3)(ix), (f), (g), (i), (j)	Compliance with Standards and Maintenance Requirements	Yes.	
63.6(b)(6), (c)(3), (c)(4), (d), (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv)	Reserved	No.	
63.6(h)(1)- (h)(4), (h)(5)(i)- (h)(5)(iii), (h)(6)-(h)(9)		No...	Subpart EEEEEEE does not include opacity or visible emissions standards.
63.7(a), (e), (f), (g), (h)	Performance Testing Requirements	Yes.	
63.7(b), (c)		Yes/No...	Notification of performance tests

			and quality assurance program apply to new sources but not existing sources.
63.8(a)(1), (a)(2), (b), (c), (f), (g)	Monitoring Requirements	Yes.	
63.8(a)(3)	Reserved	No.	
63.8(a)(4)		No.	Subpart EEEEEEE does not require flares.
63.8(d), (e)		Yes/No...	Requirements for quality control program and performance evaluations apply to new sources but not existing sources.
63.9(a), (b)(1), (b)(2), (b)(5), (c), (d), (h)(1)- (h)(3), (h)(5), (h)(6), (i), (j)	Notification Requirements	Yes.	
63.9(b)(3), (h)(4)	Reserved	No.	
63.9(b)(4), (f)		No.	
63.9(e), (g)		Yes/No...	Requirement for notification of performance test and for use of continuous monitoring systems apply to new sources but not existing sources.
63.10(a), (b)(1), (d)(1), (d)(2), (d)(4), (d)(5), (f)	Recordkeeping and Reporting Requirements	Yes.	
63.10(b)(2), (b)(3), (c)(1) (c)(5)-(c)(8), (c)(10)- (c)(15), (e)(1), (e)(2)		Yes/No...	Recordkeeping and reporting requirements apply to new sources but not existing sources.

63.10(c)(2)- (c)(4), (c)(9)	Reserved	No.	
63.10(d)(3), (e)(4)		No...	Subpart EEEEE does not contain opacity or visible emissions standards.
63.10(e)(3)		Yes/No...	Reporting requirements apply to new sources but not existing sources.
63.11	Control Device Requirements	No...	Subpart EEEEEEE does not require flares.
63.12	State Authorities and Delegations.	Yes.	
63.13	Addresses.	Yes.	
63.14	Incorporations by Reference.	Yes.	
63.15	Availability of Information and Confidentiality	Yes.	
63.16	Performance Track Provisions	Yes.	

5. Part 63 is amended by adding subpart FFFFFFFF to read as follows:

**Subpart FFFFFFFF--National Emission Standards for Hazardous Air Pollutants for Secondary Copper Smelting Area Sources**  
Sec.

**Applicability and Compliance Dates**

63.11153 Am I subject to this subpart?

63.11154 What are my compliance dates?

**Standards and Compliance Requirements**

63.11155 What are the standards and compliance requirements for new sources?

63.11156 [Reserved]

**Other Requirements and Information**

63.11157 What General Provisions apply to this subpart?

63.11158 What definitions apply to this subpart?

63.11159 Who implements and enforces this subpart?

**Tables to Subpart FFFFFFFF of Part 63**

Table 1 to Subpart FFFFFFFF of Part 63--Applicability of General Provisions to Subpart FFFFFFFF

**Applicability and Compliance Dates**

§63.11153 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate a new secondary copper smelter that is an area source of hazardous air pollutant (HAP) emissions. Your



secondary copper smelter is an area source if it does not emit and does not have the potential to emit either 10 tons per year (tpy) or more of any single HAP or 25 tpy or more of any combination of HAP.

(b) This subpart applies to each new affected source. The affected source is each secondary copper smelter. Your secondary copper smelter is a new affected source if you commenced construction or reconstruction of the affected source before [INSERT DATE OF PUBLICATION OF THIS PROPOSED RULE IN THE FEDERAL REGISTER].

(c) This subpart does not apply to research and development facilities, as defined in section 112(c)(7) of the CAA.

(d) If you own or operate an area source subject to this subpart, you must obtain a permit under 40 CFR part 70 or 40 CFR part 71.

§63.11154 What are my compliance dates?

(a) If you startup a new affected source on or before [DATE OF PUBLICATION OF FINAL RULE IN THE FEDERAL REGISTER], you must achieve compliance with the applicable provisions of this subpart not later than [DATE OF PUBLICATION OF FINAL RULE IN THE FEDERAL REGISTER].

(b) If you startup a new affected source after [DATE

OF PUBLICATION OF FINAL RULE IN THE FEDERAL REGISTER], you must achieve compliance with the applicable provisions of this subpart upon startup of your affected source.

### **Standards and Compliance Requirements**

§63.11155 What are the standards and compliance requirements for new sources?

(a) You must not discharge to the atmosphere any gases which contain particulate matter (PM) in excess of 0.002 grains per dry standard cubic foot (gr/dscf) from the exhaust vent of any capture system for a smelting furnace, melting furnace, or other vessel that contains molten material and any capture system for the transfer of molten material.

(b) For each smelting furnace, melting furnace, or other vessel that contains molten material, you must install and operate a capture system that collects the gases and fumes from the vessel and from the transfer of molten material and convey the collected gas stream to a control device.

(c) You must prepare and operate at all times according to a written plan for the selection, inspection, and pretreatment of copper scrap to minimize, to the extent practicable, the amount of oil and plastics in the scrap

that is charged to the smelting furnace. Your plan must include a training program for scrap inspectors. You must keep records to demonstrate continuous compliance with the requirements of your plan. You must keep a current copy of your pollution prevention plan onsite and available for inspection.

(d) You must install, operate, and maintain a bag leak detection system on all baghouses used to comply with the PM emissions limit in paragraph (a) of this section according to paragraph (d)(1) of this section, prepare and operate by a site-specific monitoring plan according to paragraph (d)(2) of this section, take corrective action according to paragraph (d)(3) of this section, and record information according to paragraph (d)(4) of this section.

(1) Each bag leak detection system must meet the specifications and requirements in paragraphs (d)(1)(i) through (viii) of this section.

(i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per actual cubic meter (0.00044 grains per actual cubic foot) or less.

(ii) The bag leak detection system sensor must provide output of relative PM loadings. The owner or

operator shall continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger.)

(iii) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (d)(1)(iv) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(iv) In the initial adjustment of the bag leak detection system, you must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.

(v) Following initial adjustment, you shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority except as provided in paragraph (d)(1)(vi) of this section.

(vi) Once per quarter, you may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to

the procedures identified in the site-specific monitoring plan required by paragraph (d)(2) of this section.

(vii) You must install the bag leak detection sensor downstream of the baghouse and upstream of any wet scrubber.

(viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(2) You must develop and submit to the Administrator or delegated authority for approval a site-specific monitoring plan for each bag leak detection system. You must operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. For each bag leak detection system that operates on the triboelectric effect, the monitoring plan must be consistent with the recommendations contained in the "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015) currently available at <http://www.epa.gov/ttn.emc01/cem/tribo.pdf>. Each monitoring plan must describe the items in paragraphs (d)(2)(i) through (vi) of this section.

(i) Installation of the bag leak detection system;

(ii) Initial and periodic adjustment of the bag leak

detection system, including how the alarm set-point will be established;

(iii) Operation of the bag leak detection system, including quality assurance procedures;

(iv) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;

(v) How the bag leak detection system output will be recorded and stored; and

(vi) Corrective action procedures as specified in paragraph (d)(3) of this section. In approving the site-specific monitoring plan, the Administrator or delegated authority may allow owners and operators more than 3 hours to alleviate a specific condition that causes an alarm if the owner or operator identifies in the monitoring plan this specific condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate this specific condition within 3 hours of the time the alarm occurs, and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.

(3) For each bag leak detection system, you must initiate procedures to determine the cause of every alarm

within 1 hour of the alarm. Except as provided in paragraph (d)(2)(vi) of this section, you must alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:

- (i) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in particulate emissions;
- (ii) Sealing off defective bags or filter media;
- (iii) Replacing defective bags or filter media or otherwise repairing the control device;
- (iv) Sealing off a defective baghouse compartment;
- (v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or
- (vi) Shutting down the process producing the particulate emissions.

(4) You must maintain records of the information specified in paragraphs (d)(4)(i) through (iii) of this section for each bag leak detection system.

- (i) Records of the bag leak detection system output;
- (ii) Records of bag leak detection system adjustments, including the date and time of the adjustment,

the initial bag leak detection system settings, and the final bag leak detection system settings; and

(iii) The date and time of all bag leak detection system alarms, the time that procedures to determine the cause of an alarm were initiated, whether procedures were initiated within 1 hour of the alarm, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and whether the alarm was alleviated within 3 hours of the alarm.

(e) You must conduct a performance test to demonstrate initial compliance with the PM emissions limit within 180 days after startup and report the results in your notification of compliance status. You must conduct each PM test according to §63.7(e)(1) using the test methods and procedures in paragraphs (e)(1) through (5) of this section.

(1) Method 1 or 1A (40 CFR part 60, appendix A) to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(2) Method 2, 2A, 2C, 2D, 2F, or 2G (40 CFR part 60,



appendix A) to determine the volumetric flow rate of the stack gas.

(3) Method 3, 3A, or 3B (40 CFR part 60, appendix A) to determine the dry molecular weight of the stack gas. You may use ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses (incorporated by reference—see §63.14) as an alternative to EPA Method 3B.

(4) Method 4 (40 CFR part 60, appendix A) to determine the moisture content of the stack gas.

(5) Method 5 (40 CFR part 60, appendix A) to determine the PM concentration for negative pressure baghouses and Method 5D (40 CFR part 60, appendix A) for positive pressure baghouses. The sampling time and volume for each run must be at least 60 minutes and 0.85 dry standard cubic meters (30 dry standard cubic feet). A minimum of three valid test runs are needed to comprise a PM performance test.

(f) You must conduct subsequent performance tests to demonstrate compliance with the PM emissions limit at least once every 5 years.

(g) If you use a control device other than a baghouse, you must prepare and submit a monitoring plan to the Administrator for approval. Each plan must contain the

information in paragraphs (g)(1) through (5) of this section.

(1) A description of the device;

(2) Test results collected in accordance with paragraph (e) of this section verifying the performance of the device for reducing PM to the levels required by this subpart;

(3) Operation and maintenance plan for the control device (including a preventative maintenance schedule consistent with the manufacturer's instructions for routine and long-term maintenance) and continuous monitoring system.

(4) A list of operating parameters that will be monitored to maintain continuous compliance with the applicable emission limits; and

(5) Operating parameter limits based on monitoring data collected during the performance test.

§63.11156 [Reserved]

#### **Other Requirements and Information**

§63.11157 What General Provisions apply to this subpart?

(a) If you own or operate a new affected source, you must comply with the requirements of the General Provisions in 40 CFR part 63, subpart A as specified in Table 1 to

this subpart.

(b) Your notification of compliance status required by §63.9(h) must include the results of the initial performance tests and monitoring data collected during the test.

(c) Your notification of compliance status required by §63.9(h) must include this certification of compliance, signed by a responsible official, for the work practice standard in §63.11155(b): "This facility complies with the requirement for a written plan for the selection, inspection, and pretreatment of copper scrap in accordance with §63.11155(b)."

(d) Your notification of compliance status required by §63.9(h) must include this certification of compliance, signed by a responsible official, for the work practice standard in §63.11155(c)(9): "This facility has an approved monitoring plan in accordance with §63.11155(c)(9)."

(e) If you use control devices other than baghouses, your notification of compliance status required by §63.9(h) must include this certification of compliance, signed by a responsible official for the monitoring plan requirements in §63.11163(i): "This facility has an approved monitoring

plan in accordance with §63.11163(i)."

§63.11158 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in 40 CFR 63.2, and in this section as follows:

Anode copper means copper that is cast into anodes and refined in an electrolytic process to produce high purity copper.

Capture system means the collection of components used to capture gases and fumes released from one or more emissions points and then convey the captured gas stream to a control device. A capture system may include, but is not limited to, the following components as applicable to a given capture system design: duct intake devices, hoods, enclosures, ductwork, dampers, manifolds, plenums, and fans.

Melting furnace means any furnace, reactor, or other type of vessel that heats solid materials and produces a molten mass of material.

Secondary copper smelter means a facility that processes copper scrap in a blast furnace and converter or that uses another pyrometallurgical purification process to produce anode copper from copper scrap, including low-grade copper scrap. A facility where recycled copper scrap or

copper alloy scrap is melted to produce ingots or for direct use in a manufacturing process is not a secondary copper smelter.

Smelting furnace means any furnace, reactor, or other type of vessel in which copper scrap and fluxes are melted to form a molten mass of material containing copper and slag.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof.

§63.11159 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as a State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or tribal agency, then that Agency has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to a State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by

the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are listed in paragraphs (c)(1) through (4) of this section.

(1) Approval of an alternative non-opacity emissions standard under §63.6(g).

(2) Approval of a major change to test methods under §63.7(e)(2)(ii) and (f). A "major change to test method" is defined in §63.90.

(3) Approval of a major change to monitoring under §63.8(f). A "major change to monitoring" is defined in §63.90.

(4) Approval of a major change to recordkeeping/reporting under §63.10(f). A "major change to recordkeeping/reporting" is defined in §63.90.

**Tables to Subpart FFFFFF of Part 63**

TABLE 1 TO SUBPART FFFFFFF OF PART 63--APPLICABILITY OF  
GENERAL PROVISIONS TO SUBPART FFFFFFF

As required in §63.11157(a), you must comply with the requirements of the General Provisions (40 CFR part 63, subpart A) as shown in the following table.

Citation	Subject	Applies to Subpart FFFFFFF?	Explanation
63.1(a)(1), (a)(2), (a)(3), (a)(4), (a)(6), (a)(10)-(a)(12) (b)(1), (b)(3), (c)(1), (c)(2), (c)(5), (e)	Applicability	Yes.	
63.1(a)(5), (a)(7)-(a)(9), (b)(2), (c)(3), (c)(4), (d)	Reserved	No.	
63.2	Definitions	Yes.	
63.3	Units and Abbreviations	Yes.	
63.4	Prohibited Activities and Circumvention	Yes.	
63.5	Preconstruction Review and Notification Requirements	No.	
63.6(a), (b)(1)- (b)(5), (b)(7), (c)(1), (c)(2), (c)(5), (e)(3)(i), (e)(3)(iii)- (e)(3)(ix), (f), (g), (i), (j)	Compliance with Standards and Maintenance Requirements	Yes.	
63.6(b)(6), (c)(3), (c)(4), (d), (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv)	Reserved	No.	
63.6(h)(1)-(h)(4), (h)(5)(i)- (h)(5)(iii), (h)(6)-(h)(9)		No.	Subpart FFFFFFF does not include opacity or visible emissions

			standards.
63.7	Performance Testing Requirements	Yes.	
63.8(a)(1), (a)(2), (b), (f)(1)-(5)	Monitoring Requirements	Yes.	
63.8(a)(3)	Reserved	No.	
63.8(c), (d), (e), (f)(6), (g)		No.	Subpart FFFFFFFF does not require a continuous monitoring system.
63.8(a)(4)		No..	Subpart FFFFFFFF does not require flares.
63.9(a), (b)(1), (b)(2), (b)(5), (c), (d), (e), (f), (g), (h)(1)-(h)(3), (h)(5), (h)(6), (i), (j)	Notification Requirements	Yes.	
63.9(b)(3), (h)(4)	Reserved	No.	
63.9(b)(4)		No.	
63.9(f)		No..	Subpart FFFFFFFF does not include opacity or visible emissions standards.
63.9(g)		No..	Subpart FFFFFFFF does not require a continuous monitoring system.
63.10(a), (b)(2)(i)-(b)(2)(v), (b)(2)(xiv), (d)(1), (d)(2), (d)(4), (d)(5), (e)(1), (e)(2), (f)	Recordkeeping and Reporting Requirements	Yes.	
63.10(c)(2)-(c)(4), (c)(9)	Reserved	No.	
63.10(b)(2)(vi)-			Subpart FFFFFFFF



(b)(2)(xiii), (c)(1), (c)(5)- (c)(14), (e)(1)- (e)(2), (e)(4)			does not require a continuous monitoring system.
63.10(d)(3)		No...	Subpart FFFFFFFF does not include opacity or visible emissions standards.
63.10(e)(3)		Yes.	
63.11	Control Device Requirements	No...	Subpart FFFFFFFF does not require flares.
63.12	State Authorities and Delegations.	Yes.	
63.13	Addresses.	Yes.	
63.14	Incorporations by Reference.	Yes.	
63.15	Availability of Information and Confidentiality.	Yes.	
63.16	Performance Track Provisions.	Yes.	

6. Part 63 is amended by adding subpart GGGGGG to read as follows:

**Subpart GGGGGG--National Emission Standards for Hazardous Air Pollutants for Primary Nonferrous Metals Area Sources--  
Zinc, Cadmium, and Beryllium**

Sec.

**Applicability and Compliance Dates**

63.11160 Am I subject to this subpart?

63.11161 What are my compliance dates?

**Primary Zinc Production Facilities**

63.11162 What are the standards and compliance requirements for existing sources?

63.11163 What are the standards and compliance requirements for new sources?

63.11164 What General Provisions apply to primary zinc production facilities?

**Primary Beryllium Production Facilities**

63.11165 What are the standards and compliance requirements for new and existing sources?

63.11166 What General Provisions apply to primary beryllium production facilities?

**Other Requirements and Information**

63.11167 What definitions apply to this subpart?

63.11168 Who implements and enforces this subpart?

**Applicability and Compliance Dates**

§63.11160 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate a primary zinc production facility or primary beryllium production facility that is an area source of hazardous air pollutant (HAP) emissions. Your primary zinc or primary beryllium production facility is an area source if it does not emit and does not have the potential to emit either 10 tons per year (tpy) or more of any single HAP or 25 tpy or more of any combination of HAP.

(b) The affected source is each existing or new primary zinc production facility or primary beryllium production facility.

(1) An affected source is existing if you commenced construction or reconstruction of the affected source before [INSERT DATE OF PUBLICATION OF THIS PROPOSED RULE IN THE FEDERAL REGISTER].

(2) An affected source is new if you commenced construction or reconstruction of the affected source on or after [INSERT DATE OF PUBLICATION OF THIS PROPOSED RULE IN THE FEDERAL REGISTER].

(c) If you own or operate a new or existing affected source, you must obtain a permit under 40 CFR part 70 or 71.

§63.11161 What are my compliance dates?

(a) If you have an existing affected source, you must achieve compliance with applicable provisions in this subpart by [DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]. If you startup a new sintering machine at an existing affected source after [DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], you must achieve compliance with the applicable provisions in this subpart not later than 180 days after startup.

(b) If you have a new affected source, you must achieve compliance with applicable provisions in this subpart according to the dates in paragraphs (b)(1) and (2) of this section.

(1) If you startup a new affected source on or before [DATE OF PUBLICATION OF FINAL RULE IN THE FEDERAL REGISTER], you must achieve compliance with applicable provisions in this subpart not later than [DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER].

(2) If you startup a new affected source after [DATE OF PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], you must achieve compliance with applicable provisions in this subpart upon initial startup.

#### **Primary Zinc Production Facilities**

§63.11162 What are the standards and compliance

requirements for existing sources?

(a) You must exhaust the off-gases from each roaster to a particulate matter (PM) control device and to a sulfuric acid plant, including during the charging of the roaster.

(b) You must not discharge to the atmosphere any gases which contain PM in excess of the emissions limits in paragraphs (b)(1) through (5) of this section.

(1) 0.93 pound per hour (lb/hr) from the exhaust vent of a zinc cathode melting furnace.

(2) 0.1 lb/hr from the exhaust vent of a furnace that melts zinc dust, zinc chips, and/or other materials containing zinc.

(3) 0.228 lb/hr from the vent for the combined exhaust from a furnace melting zinc scrap and an alloy furnace.

(4) 0.014 grains per dry standard cubic foot (gr/dscf) from the exhaust vent of an anode casting furnace.

(5) 0.015 gr/dscf from the exhaust vent of a cadmium melting furnace.

(c) You must establish an operating range for pressure drop for each baghouse applied to a furnace

subject to an emissions limit in paragraph (b) of this section based on the minimum and maximum values recorded during a performance test that demonstrates compliance with the applicable PM emissions limit. Alternatively, you may use an operating range that has been previously established and approved by your permitting authority within the past 5 years. You must monitor the pressure drop daily, maintain the pressure drop for each baghouse within the established operating range, and record the pressure drop measurement in a daily log. You must perform routine maintenance on each baghouse and record maintenance activities in a baghouse maintenance log. Baghouse maintenance logs must include, but are not limited to, inspections, criteria for changing bag filters, and dates on which the bag filters are replaced. Both logs must be maintained in a suitable permanent form and kept available for inspection.

(d) If you own or operate a sintering machine at your facility, you must comply with the PM emissions limit in 40 CFR 60.172(a) and the opacity emissions limit in 40 CFR 60.174(a) for that sintering machine.

(e) If you own or operate a sintering machine at your facility, you must install and operate a continuous opacity monitoring system (COMS) for each sintering machine

according to the requirements in 40 CFR 60.175(a). Each COMS must meet Performance Specification 1 (40 CFR part 60, appendix B).

(f) For each furnace at your facility, you must demonstrate initial compliance with the applicable PM emissions limit in paragraph (b) of this section based on the results of a performance test for that furnace. If you own or operate a sintering machine, you must also demonstrate initial compliance with the PM and opacity emissions limits in paragraph (d) of this section based on the results of a performance test for that sintering machine.

(1) You may certify initial compliance for a furnace (and sintering machine, if applicable) based on the results of a previous performance test conducted during the past 5 years.

(2) If you have not conducted a performance test to demonstrate compliance with the applicable emissions limits during the past 5 years, you must conduct a performance test within 180 days of your compliance date and report the results in your notification of compliance status.

(3) You must conduct each PM test for a furnace according to §63.7(e)(1) using the test methods and

procedures in paragraphs (f)(3)(i) through (v) of this section.

(i) Method 1 or 1A (40 CFR part 60, appendix A) to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G (40 CFR part 60, appendix A) to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B (40 CFR part 60, appendix A) to determine the dry molecular weight of the stack gas. You may use ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses (incorporated by reference—see §63.14) as an alternative to EPA Method 3B.

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

(v) Method 5 (40 CFR part 60, appendix A) to determine the PM concentration for a negative pressure baghouse, Method 5D (40 CFR part 60, appendix A) for a positive pressure baghouse, or an alternative method previously approved by your permitting authority. A



minimum of three valid test runs are needed to comprise a PM performance test.

(4) You must conduct each PM test for a sintering machine according to §63.7(e)(1) and 40 CFR 60.176(b)(1) using the test methods in paragraph (f)(3) of this section. You must determine the PM concentration using EPA Method 5 (40 CFR part 60, appendix A). You may use ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses" (incorporated by reference—see §63.14) as an alternative to EPA Method 3B.

(5) You must conduct each opacity test for a sintering machine according to the requirements in §63.6(h)(7). You must determine the opacity of emissions using EPA Method 9 (40 CFR part 60, appendix A).

(g) For each furnace subject to an emissions limit in paragraph (b) of this section, you must conduct subsequent performance tests according to the requirements in paragraph (f)(3) of this section to demonstrate compliance with the applicable PM emissions limit for the furnace every 5 years.

(h) You must submit a notification to your permitting authority of any deviation from the requirements of this subpart within 30 days after the deviation. The

notification must describe the probable cause of the deviation and any corrective actions or preventative measures taken.

(i) You must submit semiannual monitoring reports to your permitting authority containing the results for all monitoring required by this subpart. All deviations that occur during the reporting period must be clearly identified.

(j) You must keep records of all required monitoring data and support information. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation and copies of all reports required by this subpart.

§63.11163 What are the standards and compliance requirements for new sources?

(a) You must exhaust the off-gases from each roaster to a PM control device and to a sulfuric acid plant, including the charging of the roaster.

(b) You must not discharge to the atmosphere any gases which contain PM in excess of the emissions limits in paragraphs (b)(1) through (3) of this section.

(1) 0.005 gr/dscf from the exhaust vent of a zinc

cathode melting furnace; scrap zinc melting furnace; furnace melting zinc dust, zinc chips, and other materials containing zinc; and alloy melting furnace.

(2) 0.014 gr/dscf from the exhaust vent of an anode casting furnace.

(3) 0.015 gr/dscf from the exhaust vent of a cadmium melting furnace.

(c) For each melting furnace, you must install and operate a capture system that collects gases and fumes from the melting furnace and from the transfer of molten materials and conveys the collected gases to a control device.

(d) You must install, operate, and maintain a bag leak detection system on all baghouses used to comply with the PM emissions limit in paragraph (b) of this section according to paragraph (d)(1) of this section, prepare and operate by a site-specific monitoring plan according to paragraph (d)(2) of this section, take corrective action according to paragraph (d)(3) of this section, and record information according to paragraph (d)(4) of this section.

(1) Each bag leak detection system must meet the specifications and requirements in paragraphs (d)(1)(i) through (viii) of this section.

(i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per actual cubic meter (0.00044 grains per actual cubic foot) or less.

(ii) The bag leak detection system sensor must provide output of relative PM loadings. The owner or operator shall continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger.)

(iii) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (d)(1)(iv) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(iv) In the initial adjustment of the bag leak detection system, you must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.

(v) Following initial adjustment, you shall not adjust the averaging period, alarm set point, or alarm

delay time without approval from the Administrator or delegated authority except as provided in paragraph (d)(1)(vi) of this section.

(vi) Once per quarter, you may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by paragraph (d)(2) of this section.

(vii) You must install the bag leak detection sensor downstream of the baghouse and upstream of any wet scrubber.

(viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(2) You must develop and submit to the Administrator or delegated authority for approval a site-specific monitoring plan for each bag leak detection system. You must operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. For each bag leak detection system that operates on the triboelectric effect, the monitoring plan must be consistent with the recommendations contained in the "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-

015) currently available at

<http://www.epa.gov/ttn.emc01/cem/tribo.pdf>. Each

monitoring plan must describe the items in paragraphs

(d)(2)(i) through (vi) of this section.

(i) Installation of the bag leak detection system;

(ii) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point will be established;

(iii) Operation of the bag leak detection system, including quality assurance procedures;

(iv) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;

(v) How the bag leak detection system output will be recorded and stored; and

(vi) Corrective action procedures as specified in paragraph (d)(3) of this section. In approving the site-specific monitoring plan, the Administrator or delegated authority may allow owners and operators more than 3 hours to alleviate a specific condition that causes an alarm if the owner or operator identifies in the monitoring plan this specific condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate

this condition within 3 hours of the time the alarm occurs, and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.

(3) For each bag leak detection system, you must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. Except as provided in paragraph (d)(2)(vi) of this section, you must alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:

- (i) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in particulate emissions;
- (ii) Sealing off defective bags or filter media;
- (iii) Replacing defective bags or filter media or otherwise repairing the control device;
- (iv) Sealing off a defective baghouse compartment;
- (v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or
- (vi) Shutting down the process producing the particulate emissions.

(4) You must maintain records of the information specified in paragraphs (d)(4)(i) through (iii) of this section for each bag leak detection system.

(i) Records of the bag leak detection system output;

(ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and

(iii) The date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, if procedures were initiated within 1 hour of the alarm, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and if the alarm was alleviated within 3 hours of the alarm.

(e) If there is a sintering machine at your primary zinc production facility, you must comply with the PM emissions limit in 40 CFR 60.172(a) and the opacity emissions limit in 40 CFR 60.174(a) for that sintering machine.

(f) If there is a sintering machine at your primary zinc production facility, you must install and operate a COMS for each sintering machine according to the



requirements in 40 CFR 60.175(a). Each COMS must meet EPA Performance Specification 1 (40 CFR part 60, appendix B).

(g) For each furnace (and sintering machine, if applicable) at your facility, you must conduct a performance test to demonstrate initial compliance with each applicable PM emissions limit for that furnace (and the PM and opacity limits for a sintering machine, if applicable) within 180 days after startup and report the results in your notification of compliance status.

(1) You must conduct each PM test for a furnace according to §63.7(e)(1) using the test methods and procedures in paragraphs (g)(1)(i) through (v) of this section.

(i) Method 1 or 1A (40 CFR part 60, appendix A) to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G (40 CFR part 60, appendix A) to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B (40 CFR part 60, appendix

A) to determine the dry molecular weight of the stack gas. You may use ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses (incorporated by reference—see §63.14) as an alternative to EPA Method 3B.

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

(v) Method 5 (40 CFR part 60, appendix A) to determine the PM concentration for negative pressure baghouses or Method 5D (40 CFR part 60, appendix A) for positive pressure baghouses. A minimum of three valid test runs are needed to comprise a PM performance test.

(2) You must conduct each PM test for a sintering machine according to §63.7(e)(1) and 40 CFR 60.176(b)(1) using the test methods in paragraph (g)(1) of this section. You must determine the PM concentration using EPA Method 5 (40 CFR part 60, appendix A). You may use ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses" (incorporated by reference—see §63.14) as an alternative to EPA Method 3B.

(3) You must conduct each opacity test for a sintering machine according to the requirements in §63.6(h)(7). You must determine the opacity of emissions using EPA Method 9 (40 CFR part 60, appendix A).

(h) You must conduct subsequent performance tests according to the requirements in paragraph (g)(1) of this section for each furnace subject to an emissions limit in paragraph (b) of this section to demonstrate compliance at least once every 5 years.

(i) If you use a control device other than a baghouse, you must prepare and submit a monitoring plan to the Administrator for approval. Each plan must contain the information in paragraphs (i)(1) through (5) of this section.

(1) A description of the device;

(2) Test results collected in accordance with paragraph (g) of this section verifying the performance of the device for reducing PM and opacity to the levels required by this subpart;

(3) Operation and maintenance plan for the control device (including a preventative maintenance schedule consistent with the manufacturer's instructions for routine and long-term maintenance) and continuous monitoring system;

(4) A list of operating parameters that will be monitored to maintain continuous compliance with the applicable emission limits; and

(5) Operating parameter limits based on monitoring data collected during the performance test.

63.11164 What General Provisions apply to primary zinc production facilities?

(a) If you own or operate an existing affected source, you must comply with the requirements of the General Provisions in 40 CFR part 63, subpart A, according to Table 1 to this subpart and paragraphs (a)(1) through (3) of this section.

(1) Your notification of compliance status required by §63.9(h) must include this certification of compliance, signed by a responsible official, for the work practice standards in §63.11162(a): "This facility complies with the work practice standards in §63.11162(a)."

(2) If you certify compliance with the PM emissions limits in §63.11162(b) based on a previous performance test, your notification of compliance status required by §63.9(h) must include this certification of compliance, signed by a responsible official: "This facility complies with the PM emissions limits in §63.11162(b) based on a previous performance test."

(3) If you conduct a new performance test to demonstrate compliance with the PM emissions limits for a

furnace in §63.11162(b), your notification of compliance status required by §63.9(h) must include the results of the performance test, including required monitoring data.

(b) If you own or operate a new affected source, you must comply with the requirements of the General Provisions (40 CFR part 63, subpart A) as provided in Table 1 to this subpart and paragraphs (b)(1) through (4) of this section.

(1) Your notification of compliance status required in §63.9(h) must include the results of the initial performance tests, including required monitoring data.

(2) Your notification of compliance status required by §63.9(h) must include this certification of compliance, signed by a responsible official, for the work practice standard in §63.11163(a): "This facility complies with the work practice standards in §63.11163(a)."

(3) Your notification of compliance status required by §63.9(h) must include this certification of compliance, signed by a responsible official, for the capture system requirements in §63.11163(c): "This facility has installed capture systems according to §63.11163(c)."

(4) If you use a baghouse that is subject to the requirements in §63.11163(d), your notification of compliance status required by §63.9(h) must include this

certification of compliance, signed by a responsible official, for the bag leak detection system requirements in §63.11163(d): "This facility has an approved monitoring plan in accordance with §63.11163(d)."

(5) If you use control devices other than baghouses, your notification of compliance status required by §63.9(h) must include this certification of compliance, signed by a responsible official for the monitoring plan requirements in §63.11163(i): "This facility has an approved monitoring plan in accordance with §63.11163(i)."

#### **Primary Beryllium Production Facilities**

§63.11165 What are the standards and compliance requirements for new and existing sources?

You must comply with the requirements in 40 CFR 61.32 through 40 CFR 61.34 of the National Emission Standards for Beryllium (40 CFR part 61, subpart C).

§63.11166 What General Provisions apply to primary beryllium production facilities?

(a) You must comply with all of the requirements of the General Provisions in 40 CFR part 61, subpart A.

(b) You must comply with the requirements of the General Provisions in 40 CFR part 63, subpart A, that are specified in paragraphs (b)(1) through (4) of this section.

(1) §63.1(a)(1) through (10).

(2) §63.1(b) except paragraph (b)(3), §63.1(c), and §63.1(e).

(3) §63.5 (preconstruction review and notification requirements) except for the references to §63.6 for compliance procedures and the references to §63.9 for notification procedures.

(4) §63.6(e)(3).

#### **Other Requirements and Information**

##### §63.11167 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act; 40 CFR 60.2, 60.171, 61.02, 61.31, 61.61, 63.2, and in this section as follows:

Alloy furnace means any furnace used to melt alloys or to produce zinc that contains alloys.

Anode casting furnace means any furnace that melts materials to produce the anodes used in the electrolytic process for the production of zinc.

Bag leak detection system means a system that is capable of continuously monitoring the relative particulate matter (dust) loadings in the exhaust of a baghouse to detect bag leaks and other conditions that result in increases in particulate loadings. A bag leak detection

system includes, but it not limited to, an instrument that operates on triboelectric, electrodynamic, light scattering, light transmittance, or other effect to continuously monitor relative particulate matter loadings.

Cadmium melting furnace means any furnace used to melt cadmium or produce cadmium oxide from the cadmium recovered in the zinc production process.

Capture system means the collection of equipment used to capture gases and fumes released from one or more emissions points and then convey the captured gas stream to a control device. A capture system may include, but is not limited to, the following components as applicable to a given capture system design: duct intake devices, hoods, enclosures, ductwork, dampers, manifolds, plenums, and fans.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emissions limitation or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this



subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emissions limitation or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Primary beryllium production facility means any establishment engaged in the chemical processing of beryllium ore to produce beryllium metal, alloy, or oxide, or performing any of the intermediate steps in these processes. A primary beryllium production facility may also be known as an extraction plant.

Primary zinc production facility means an installation engaged in the production, or any intermediate process in the production, of zinc or zinc oxide from zinc sulfide ore concentrates through the use of pyrometallurgical techniques.

Responsible official means responsible official as defined in 40 CFR 70.2.

Roaster means any facility in which a zinc sulfide ore concentrate charge is heated in the presence of air to eliminate a significant portion (more than 10 percent) of the sulfur contained in the charge.

Sintering machine means any furnace in which calcines are heated in the presence of air to agglomerate the calcines into a hard porous mass called sinter.

Sulfuric acid plant means any facility producing sulfuric acid from the sulfur dioxide (SO<sub>2</sub>) in the gases from the roaster.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof.

Zinc cathode melting furnace means any furnace used to melt the pure zinc from the electrolytic process.

§63.11168 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. EPA or a delegated authority such as a State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or tribal agency, then that Agency has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities

contained in paragraphs (c) and (d) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) For primary zinc production facilities subject to this subpart, the authorities that will not be delegated to State, local, or tribal agencies are listed in paragraphs (c)(1) through (5) of this section.

(1) Approval of an alternative non-opacity emissions standard under §63.6(g).

(2) Approval of an alternative opacity emissions standard under §63.6(h)(9).

(3) Approval of a major change to test methods under §63.7(e)(2)(ii) and (f). A "major change to test method" is defined in §63.90

(4) Approval of a major change to monitoring under §63.8(f). A "major change to monitoring" is defined in §63.90.

(5) Approval of a major change to recordkeeping/reporting under §63.10(f). A "major change to recordkeeping/reporting" is defined in §63.90.

(d) For primary beryllium manufacturing facilities subject to this subpart, the authorities that will not be delegated to State, local, or tribal agencies are listed in

paragraphs (d)(1) through (4) of this section.

(1) Approval of an alternative non-opacity emissions standard under 40 CFR 61.12(d).

(2) Approval of a major change to test methods under 40 CFR 61.13(h). A "major change to test method" is defined in §63.90.

(3) Approval of a major change to monitoring under 40 CFR 61.14(g). A "major change to monitoring" is defined in §63.90.

(4) Approval of a major change to recordkeeping/reporting under 40 CFR 61.10. A "major change to recordkeeping/reporting" is defined in §63.90.

**Tables to Subpart GGGGGG of Part 63**

TABLE 1 TO SUBPART GGGGGG OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO PRIMARY ZINC PRODUCTION AREA SOURCES

As required in §63.11164(a) and (b), you must comply with the requirements of the NESHAP General Provisions (40 CFR part 63, subpart A) as shown in the following table.

Citation	Subject	Applies to Subpart GGGGGG	Explanation
63.1(a)(1), (a)(2), (a)(3), (a)(4), (a)(6), (a)(10)-(a)(12), (b)(1), (b)(3), (c)(1), (c)(2), (c)(5), (e)	Applicability.	Yes.	
63.1(a)(5), (a)(7)-(a)(9), (b)(2), (c)(3), (c)(4), (d)	Reserved.	No.	
63.2	Definitions.	Yes.	

63.3	Units and Abbreviations.	Yes.	
63.4	Prohibited Activities and Circumvention.	Yes.	
63.5	Preconstruction Review and Notification Requirements.	No.	
63.6(a), (b)(1)-(b)(5), (b)(7), (c)(1), (c)(2), (c)(5), (e)(1), (e)(3)(i), (e)(3)iii)-(e)(3)(ix), (f), (g), (h)(1), (h)(2), (h)(5)-(h)(9), (i), (j)	Compliance with Standards and Maintenance Requirements	Yes.	
63.6(b)(6), (c)(3), (c)(4), (d), (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv)	Reserved	No.	
63.7(a), (e), (f), (g), (h)	Performance Testing Requirements	Yes.	
63.7(b), (c)		Yes/No...	Notification of performance tests and quality assurance program apply to new sources but not existing sources.
63.8(a)(1), (a)(2), (b), (c), (f), (g)	Monitoring Requirements	Yes...	Requirements in §63.6(c)(4)(i)-(ii), (c)(5), (c)(6), (d), (e), (f)(6), and (g) apply if a COMS is used.
63.8(a)(3)	Reserved	No.	
63.8(a)(4)		No...	Subpart GGGGGG does not require flares.

63.8(d), (e)		Yes/No...	Requirements for quality control program and performance evaluations apply to new sources but not existing sources.
63.9(a), (b)(1), (b)(2), (b)(5), (c), (d), (f), (g), (h)(1)-(h)(3), (h)(5), (h)(6), (i), (j)	Notification Requirements	Yes/No...	Notification of performance tests and opacity or visible emissions observations apply to new sources but not existing sources.
63.9(b)(3), (h)(4)	Reserved	No.	
63.9(b)(4)		No.	
63.10(a), (b)(1), (b)(2)(i)-(v), (d)(4), (d)(5)(i), (f)	Recordkeeping and Reporting Requirements	Yes.	
63.10(b)(2), (b)(3), (c)(1), (c)(5)-(c)(8), (c)(10)- (c)(15), (d)(1)-(d)(3), (d)(5)(ii), (e)(1), (e)(2), (e)(4)		Yes/No...	Recordkeeping and reporting requirements apply to new sources but not existing sources.
63.10(c)(2)- (c)(4), (c)(9)	Reserved	No.	
63.10(e)(3)		Yes/No...	Reporting requirements apply to new sources but not existing sources.
63.11	Control Device Requirements	No...	Subpart GGGGGG does not require flares.
63.12	State Authorities and Delegations.	Yes.	
63.13	Addresses.	Yes.	
63.14	Incorporations	Yes.	

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	by Reference.	
63.15	Availability of Information and Confidentiality.	Yes.
63.16	Performance Track Provisions.	Yes.

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