ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[FRL–7214–9]

RIN 2060–AE41

National Emission Standards for Hazardous Air Pollutants for Primary Copper Smelting

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national emission standards for hazardous air pollutants (NESHAP) for primary copper smelting. Primary copper smelters can potentially emit significant amounts of certain toxic metals listed as hazardous air pollutants (HAP) in Clean Air Act (CAA) section 112(b)(1). These metals include antimony, arsenic, beryllium, cadmium, cobalt, lead, manganese, nickel and selenium. Exposure to these substances has been demonstrated to cause adverse health effects such as diseases of the lung, kidney, central nervous system, and cancer. The final rule establishes emissions limitations and work practice standards for primary copper smelters that are (or are part of) a major source of HAP emissions and that use batch copper converters. The standards reflect the application of the maximum achievable control technology (MACT). When fully implemented, we estimate the rule will reduce annual nationwide HAP emissions from the source category by approximately 23 percent or 22 megagrams per year.

EFFECTIVE DATE: June 12, 2002.

ADDRESSES: Docket No. A–96–22 contains supporting information used in developing the rule. The docket is located at the U.S. EPA, 401 M Street, SW., Washington, DC 20460 in Room M–1500, Waterside Mall (ground floor), and may be inspected from 8:30 a.m. to 5:30 p.m., Monday through Friday, excluding legal holidays.

FOR FURTHER INFORMATION CONTACT: Mr. Eugene Crumpler, Metals Group, Emission Standards Division (C439–02), U.S. EPA, Research Triangle Park, NC, 27711, telephone number (919) 541–0881, facsimile number (919) 541–5450, electronic mail address ''crumpler.gene@epa.gov''.

SUPPLEMENTARY INFORMATION: *Docket.* The docket is an organized and complete file of all the information considered by the EPA in the development of the rule. The docket is a dynamic file because material is added throughout the rulemaking process. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the proposed and promulgated rules and their preambles, the contents of the docket will serve as the record in the case of judicial review. (See CAA section 307(d)(7)(A).) Other material related to this rulemaking is available for review in the docket or copies may be mailed on request from the Air Docket by calling (202) 260–7548. A reasonable fee may be charged for copying docket materials.

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

Judicial Review. Today's action constitutes final administrative action on the proposed NESHAP for primary copper smelting (63 FR 19582, April 20, 1998; 65 FR 39326, June 26, 2000). Under CAA section 307(b)(1), judicial review of the final rule is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by August 12, 2002. Under CAA section 307(b)(2), the requirements that are the subject of this document may not be challenged later in civil or criminal proceedings brought by the EPA to enforce these requirements.

Regulated Entities. Entities potentially regulated by this action are primary copper smelters (North American Industry Classification System (NAICS) Code 331411 Primary Smelting and Refining of Copper). No federal government entities nor State/local/tribal government entities are regulated by this rule.

This description of the regulated entities is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. To determine whether your facility is regulated by this action, you should examine the applicability criteria in § 63.1440 of the final rule. If you have any questions regarding the applicability of this action to a particular entity, consult the appropriate person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

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

I. Background

A. What is the Statutory Authority for NESHAP?

Section 112 of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. The category of major sources covered by today's final NESHAP, ''primary copper smelting,'' was listed on July 16, 1992 (57 FR 31576). Major sources of HAP are those that have the potential to emit greater than 10 tons per year (tpy) of any one HAP or 25 tpy of any combination of HAP.

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

Section 112 of the CAA requires that we establish NESHAP for the control of HAP from both new and existing major sources. The CAA requires the NESHAP to reflect the maximum degree of reduction in emissions of HAP that is achievable. This level of control is commonly referred to as MACT.

The MACT floor is the minimum control level allowed for NESHAP and is defined under CAA section 112(d)(3). In essence, the MACT floor ensures that the standards are set at a level that assures that all major sources achieve the level of control at least as stringent as that already achieved by the better controlled and lower emitting sources in each source category or subcategory. For new sources, the MACT floor cannot be less stringent than the emission control that is achieved in practice by the best controlled similar source. The MACT standards for existing sources can be less stringent than standards for new sources, but they cannot be less stringent than the average emission limitation achieved by the best performing 12 percent of existing sources in the category or subcategory (or the best performing five sources for categories or subcategories with fewer than 30 sources).

In developing MACT, we also consider control options that are more stringent than the floor. We may establish standards more stringent than the floor based on the consideration of cost of achieving the emissions reductions, any health and environmental impacts, and energy requirements.

C. How Did We Develop the Rule?

We proposed the NESHAP for the primary copper smelting source category on April 20, 1998 (63 FR 19582). A 90-day comment period was provided for the proposed rule. We received a total of 11 comment letters. A copy of each of these comment letters is available in the docket for this rulemaking (Docket No. A–96–22).

After our review and evaluation of the comments and additional information we collected after proposal, we decided that several changes to our proposed rule were appropriate. On June 26, 2000, a supplemental proposal to the rule was published in the **Federal Register** (65 FR 39326). Specifically, we proposed a particulate matter emission limit for sulfuric acid plants used at primary copper smelters to control the process off-gas discharged from the smelting and converting operations. We also proposed a limit on bag leak detector alarms for those baghouses used to comply with the particulate emission limit standards under the rule. A 60-day comment period was provided for the supplemental proposal. We received a total of eight comment letters regarding our supplement to the proposed rule. A copy of each of these letters also is available in Docket No. A–96–22.

All of the comments regarding the primary copper smelter NESHAP were reviewed and carefully considered. To clarify and obtain additional information about some specific comments, we held follow-up discussions with individual commenters. The promulgated rule reflects our full consideration of all the comments we received on the initial and supplemental rule proposals.

D. How Has the Copper Industry Changed Since Rule Proposal?

Since proposal of the NESHAP for the primary copper smelting source category, several changes have occurred in the copper industry in the United States. First, corporate ownership has changed for three of the primary copper smelters potentially subject to the NESHAP. The smelter near Miami, Arizona, owned and operated by the Cyprus Miami Mining Corporation during the time we were developing the proposed rule, is now owned by the Phelps Dodge Corporation. The name of this smelter is now the Phelps Dodge Miami smelter. The smelters located in Hayden, Arizona and El Paso, Texas were owned and operated by Asarco Incorporated at the time of rule proposal. As a result of a corporate merger, Asarco is now a subsidiary of Groupo Mexico, S.A. de C.V., the third largest producer of copper in the world.

Second, since proposal of the rule, four of the smelters potentially subject to the NESHAP have suspended operations and are not producing copper: the Asarco smelter in El Paso, Texas; the BHP Copper smelter near San Manuel, Arizona; and both of the Phelps Dodge smelters in New Mexico. At this time, it is unknown when and even if these smelters will resume production.

II. Summary of Final Rule and Changes Since Proposal

After the proposal of the NESHAP for primary copper smelters, the EPA adopted a new ''plain language'' format for all rulemakings. Accordingly, we have revised the organization, wording style, and presentation of the final rule. While these changes to the rule make it appear substantially different from the proposed rule, most of the technical and administrative requirements remain the same as proposed. In addition, for the final rule, we are correcting the name of the source category as published in the proposed rule from primary copper smelters to primary copper smelting, which is the way the source category name appears on the source category list and promulgation schedule.

A. Who Must Comply With This Rule?

The final rule applies to any owner or operator of a primary copper smelter that is a major source of HAP emissions and uses batch copper converters. A batch converter is a cylindrical vessel in which copper matte produced by the flash smelting of copper ore concentrates is oxidized in discrete batches following a sequence of steps consisting of charging, blowing, skimming, and pouring. Examples of batch converters are Pierce-Smith converters and Hoboken converters. A smelter that uses batch converters but is not a major source of HAP emissions is not subject to the rule.

For the final rule, we changed the definition of ''primary copper smelter'' to be consistent with the definition that is used in two related rules applicable to primary copper smelters. These are 40 CFR part 60, subpart P, Standards of Performance for Primary Copper Smelters, and 40 CFR part 61, subpart O, National Emission Standard for Inorganic Arsenic Emissions from Primary Copper Smelters. A primary copper smelter is defined as any installation or intermediate process engaged in the production of copper from copper sulfide ore concentrates through the use of pyrometallurgical techniques.

B. What Sources at Primary Copper Smelters Are Affected?

The final rule establishes standards for: (1) Copper concentrate dryers; (2) smelting furnaces; (3) slag cleaning vessels; (4) batch converters; and (5) fugitive dust sources associated with the handling, transfer, and storage of copper concentrate, dross, reverts, slag, speiss, and other solid copper-bearing materials.

C. When Must an Affected Source Comply With the Standards?

For the final rule, the compliance date for existing sources is 3 years from June 12, 2002. An affected source is an existing source if its construction began before April 20, 1998. An affected source is a new source if its construction or reconstruction began on or after April 20, 1998. An affected source has been reconstructed if it meets the definition of ''reconstruction'' in 40 CFR 63.2. A new or reconstructed source must be in compliance on June 12, 2002, or, if it is not yet operational, upon initial startup of the source.

D. What Are the Emission Limits and Work Practice Standards?

1. Copper Concentrate Dryers

The emission limit for an existing copper concentrate dryer is no more than 50 milligrams per dry standard cubic meter (mg/dscm) of total particulate matter, as measured by Method 5—Determination of Particulate Emissions From Stationary Sources in 40 CFR part 60, appendix A. The emission limit for a new copper concentrate dryer is no more than 23 mg/dscm of total particulate matter, as measured by Method 5.

2. Smelting Furnaces

We changed the proposed emission limit (in the supplemental proposal) for the by-product sulfuric acid plant tail gas from a limit on total particulate matter to a limit on nonsulfuric acid particulate matter. Under the final rule, nonsulfuric acid particulate matter in the tail gas discharged to the atmosphere from sulfuric acid plant can be no more than 6.2 mg/dscm, as measured by Method 5B—Determination of Nonsulfuric Acid Particulate Matter From Stationary Sources in 40 CFR part 60, appendix A.

A second revision to the standards for smelting furnaces is the particulate matter emission limit for process fugitive emissions from matte and slag tapping. The limit has been changed from 16 mg/dscm to 23 mg/dscm of total particulate matter, as measured by Method 5. The value of this emission limit was changed based on our reconsideration of the test data.

3. Slag Cleaning Vessels

The standards for slag cleaning vessels have been revised to be consistent with changes discussed above that we made for the process off-gas and process fugitive emission limits for smelting furnaces. The final standard requires that the process off-gas from slag cleaning vessels be vented to a sulfuric acid plant that meets a 6.2 mg/dscm emission limit for nonsulfuric acid particulate matter (as measured by Method 5B). As an alternative to meeting this standard, an owner or operator may choose to vent the process off-gas from the slag cleaning vessel to a wet scrubber that meets a 46 mg/dscm emission limit for total particulate matter (as measured using Method 5). The particulate matter limit for process fugitive emissions generated by tapping molten material from the slag cleaning vessel is revised to be consistent with the standard for smelting furnaces (23 mg/dscm of total particulate matter, as measured by Method 5).

4. Copper Converter Departments

Where applicable, the standards for batch converters have been revised to be consistent with the final particulate matter emission limits for process off-gas and process fugitive emissions from smelting furnaces. Process off-gas captured during converter blowing must be vented to the smelter's sulfuric acid plant that meets the 6.2 mg/dscm emission limit for nonsulfuric acid particulate matter. The particulate matter limit for process fugitive emissions generated by converter operations is set at 23 mg/dscm of total particulate matter, as measured by Method 5.

We also made several revisions to the proposed opacity limit requirements for copper converter departments. First, we modified the test protocol used to determine compliance with the applicable opacity limit. We revised how the field opacity data are compiled and averaged in order to reduce the duration of the observation period needed to obtain the required number of acceptable opacity readings. The test protocol in the final rule requires that the average opacity value for the affected source be calculated using a minimum of 120 1-minute intervals during which at least one copper converter was blowing and there were no visible emission interferences as specified in the rule (i.e., during the 1-minute interval, there were no other copper production events generating visible emissions inside the converter building that potentially could interfere with the visible emissions from the converter capture systems as seen by the outside observers).

Next, considering the above revision to the test protocol, we decided it was necessary to reexamine the test data used to establish the opacity limit for existing Pierce-Smith converters to determine the effect of using the new protocol on the proposed opacity limit. Based on this analysis, we changed the opacity limit for existing Pierce-Smith converter departments to 4 percent opacity. In the final rule, the opacity limit for existing Hoboken copper converter departments is the same value as proposed, 4 percent opacity.

Finally, we have reconsidered the selection of new source MACT for copper converter departments by applying the level of process fugitive emissions control achieved by the best controlled similar source, flash converting technology. Based on this new source MACT for copper converting operations, we have selected, as the final standard for new sources, a work practice standard that prohibits altogether the operation of batch copper converters at new copper converter departments subject to the rule.

5. Fugitive Dust Sources

The final standards for fugitive dust sources are the same as proposed with one change. We added the requirement that the fugitive dust control plan, which the smelter owner or operator is required to prepare and adhere to at all times, must be approved by the State with delegated authority for enforcement. For the purpose of complying with the final rule, an existing fugitive dust control plan may be used, provided that this plan addresses the fugitive dust sources and includes the information specified in the rule. An existing fugitive dust control plan that meets these conditions and also has been incorporated into a State implementation plan is considered to be approved for the purpose of complying with this requirement.

6. Alternative Emission Limit for Combined Gas Streams

The equation in the final rule that an owner or operator can elect to use to determine an alternative or equivalent particulate matter emission limit for gas streams combined from two or more affected sources has been corrected to include a potential control situation that was inadvertently omitted at proposal. For the final rule, the equation includes a component to address the situation where the off-gas stream exhausted from a slag cleaning vessel is not vented to the sulfuric acid plant or a dedicated wet scrubbing system, but instead is combined with other gas streams and vented to a common particulate control device.

E. What Are the General Compliance Requirements?

A new section is added to the final rule listing the general requirements for complying with the rule. The owner or operator must be in compliance with each applicable particulate matter emission limit and work practice standard at all times, except during periods of startup, shutdown, and malfunction. Each smelter owner or operator must develop and implement a written startup, shutdown, and malfunction plan for the smelter according to the general provisions of 40 CFR part 63 and the additional requirements specified in the rule.

Compliance with the opacity limits for copper converter departments is determined using the test protocol and requirements specified in the rule. The general provision requirements for compliance with opacity and visible emission standards under 40 CFR 63.6(h) do not apply to the opacity limit standards for copper converter departments.

F. How Is Initial Compliance Demonstrated?

Initial compliance with each of the particulate matter emission limits is to be determined by a performance test conducted according to 40 CFR 63.7 of the general provisions and specific EPA reference test methods. The average of three test runs is to be used to determine compliance with each of the applicable emission limits specified in the rule. During each initial performance test, the owner or operator is also required to establish limits for appropriate control device operating parameters based on the actual values recorded during the performance test.

We reconsidered our proposed requirements for when an owner or operator must conduct a performance test and decided it is appropriate to require periodic testing beyond the initial performance test to reaffirm compliance with the applicable emission limitation. Under the final rule, compliance with each applicable particulate matter emission limit must be demonstrated initially and, thereafter, at least once per year.

G. How Is Continuous Compliance Demonstrated?

To demonstrate continuous compliance with the applicable emission limitations and work practice standards under the final rule, an owner or operator must perform periodic inspections and continuous monitoring of air pollution control devices used to comply with the rule. In those situations when a deviation from the operating limits specified for a control device or capture system is indicated by the monitoring system, or when a damaged or defective component is detected during an inspection, the owner or operator must implement the appropriate corrective actions. Monthly visual inspections of all capture systems used to comply with the rule are required. Minor revisions to the procedures for these inspections were made for the final rule.

Each baghouse used to comply with a total particulate matter emission limit must be operated according to written operating and maintenance procedures that describe in detail the procedures to be used for inspection, maintenance, bag leak detection, and corrective action for the baghouse. The final rule includes the requirement as proposed in the supplemental proposal for an alarm operating limit on baghouse leak detectors. We have made minor revisions to the procedures used for inspection, maintenance, bag leak detection, and corrective action for baghouses so that the rule is consistent with the requirements for baghouses in other NESHAP.

H. What Are the Notification, Recordkeeping, and Reporting Requirements?

The final rule requires the notification, recordkeeping, and reporting requirements in the general provisions to 40 CFR part 63 with one exception. The notification, recordkeeping, and reporting requirements in the general provisions related directly to compliance with opacity and visible emission standards as specified in 40 CFR 63.6(h) do not apply to this rule. The specific recordkeeping and reporting requirements for documenting compliance with the opacity limit provisions are specified in the rule. The dates by which the notifications and reports must be submitted to us (or the applicable delegated State authority) are specified in the rule.

Each affected owner or operator must submit a semiannual compliance report containing the information specified in the rule. The final rule requires that this report be submitted whether a deviation has or has not occurred during the reporting period. However, only summary information is required if no deviation occurred. The rule does not require emergency reports if actions taken are consistent with the smelter's startup, shutdown, and malfunction plan. If actions taken are not consistent with this plan, the events and the response are to be included in the semiannual compliance report.

III. Summary of Health, Environmental, Energy, and Economic Impacts

A. What Are the Health Impacts?

The HAP emitted from primary copper smelters include compounds of antimony, arsenic, beryllium, cadmium, cobalt, lead, manganese, nickel, and selenium. The HAP metal compounds controlled by this rule are associated with a variety of adverse health effects. These adverse health effects include chronic health disorders (e.g., diseases of the lung, kidney, central nervous system), and acute health disorders (e.g., lung irritation and congestion, alimentary effects such as nausea and vomiting, and effects on the central nervous system). Arsenic and nickel compounds have been classified by the EPA as human carcinogens, and compounds formed from four other HAP metals (beryllium, cadmium, lead, and nickel) have been classified as probable carcinogens.

Emission data collected during development of the rule indicate that the HAP emitted in the largest quantities are arsenic and lead compounds. Exposure of humans to arsenic by inhalation or by ingestion has been shown to be associated with forms of lung, bladder, liver, and other cancers. Brain damage, kidney damage, and gastrointestinal distress may occur from acute exposure to high levels of lead in humans. Chronic exposure to lead by humans results in effects on the central nervous system, blood, blood pressure, and kidneys.

We do not have the detailed data on each of the primary copper smelters potentially subject to this rule or the people living around the facilities necessary to determine the actual population exposures to the HAP emitted from these smelters and the potential for resultant health effects. Therefore, we do not know the extent to which the adverse health effects occur in the populations surrounding these facilities. However, to the extent the adverse effects do occur, the rule will reduce emissions and subsequent exposures.

B. What Are the Air Emission Reduction Impacts?

Current nationwide HAP emissions from the three currently operating primary copper smelters potentially subject to the final rule are estimated to be about 96 megagrams per year (Mg/yr). We estimate that implementation of the final rule will reduce these nationwide HAP emissions by approximately 23 percent or 22 Mg/yr.

C. What Are Other Non-air Environmental and Energy Impacts?

With only three of the potentially regulated smelter operating at this time, one of the affected smelters will need to install additional air pollution control equipment to meet the copper converter department standards. The additional controls at this smelter consists of doubling the converter secondary hood ventilation rate and venting the secondary hoods to a new baghouse (fabric filter). The non-air environmental impacts associated with operating these new controls will be a small increase in the amount of solid waste generated at each smelter from the particulate matter collected in the new baghouse. Operation of the fans used to increase the converter secondary hood ventilation rates will result in a small increase in overall smelter electricity usage. No significant adverse solid waste or energy impacts are expected as a result of operating these additional air pollution controls.

D. What Are the Cost and Economic Impacts?

Costs to smelter owners and operators for complying with the final rule were estimated. As noted above, one smelters will need to install additional air pollution control equipment to meet the copper converter department standards. The total capital costs for the purchase and installation of this additional control is estimated to be $4.1 million. Total annual costs of meeting all of the requirements of the rule, including operating and maintenance costs, are estimated to be $860,000 per year.

The economic impact of the rule is determined by comparing the annualized costs incurred by each smelter to their estimated annual copper production revenues. The share of costs to estimated revenues for the affected smelters range from a low of 0.004 percent to a high of 0.2 percent. Thus, compared to the estimated production revenues for each affected smelter, the total annualized costs are minimal. Based on the smelter-specific total annual cost to sales ratios, impacts of the final rule on the companies owning the facilities are anticipated to be negligible. The economic impact analysis we prepared to support this finding is available in Docket No. A–96–22.

IV. Summary of Responses to Major Comments

A summary of our responses to selected major comments received on the proposed rule (including the supplemental proposal) is presented below. Our responses to all of the substantive public comments on the proposal are presented in the document titled *National Emission Standards for Hazardous Air Pollutant (NESHAP) for Primary Copper Smelters: Background Information Document for Promulgated Standards* (BID). The BID is available in Docket No. A–96–22.

A. How Did We Select the Emission Limit for Sulfuric Acid Plant Tail Gas?

Comment. Seven commenters disagreed with our proposal to establish a particulate emission limit for the tail gas exhaust from the by-product sulfuric acid plants used to treat the process off-gases discharged from smelting furnaces, slag cleaning vessels, and batch converters. Reasons cited include: (1) Method 5 is an inappropriate test method for measuring HAP concentrations in acid plant tail gas because Method 5 measures as particulate matter material that is not HAP (i.e., sulfuric acid mist and waters of hydration); and (2) the proposed numerical limit is based on data for only four sources not the five best performing sources as is required by CAA section 112 for establishing MACT.

Response. For the process off-gases discharged from smelting furnaces, slag cleaning vessels, and batch converters, we originally proposed an equipment standard that would require these sulfur dioxide rich process off-gases to be vented to a by-product sulfuric acid plant with its ancillary particulate matter precleaning and conditioning systems, or other type of sulfur recovery process unit capable of achieving comparable levels of particulate matter removal. At the time of proposal, all six smelters in the source category operated by-product sulfuric acid plants.

After careful review and evaluation of comments received objecting to our use of an equipment standard rather than a numerical emission limit and new emissions data obtained since proposal, we concluded that a change in the proposed standards for process off-gas emissions was warranted. As a result, we issued a supplement to the proposed rule (65 FR 39326, June 26, 2000) in which we proposed a numerical emission standard that would limit the concentration of total particulate matter in the off-gases discharged. Specifically, we proposed to set a total particulate matter emission limit for acid plant tail gas of 23 mg/dscm based on Method 5 measurements.

In response to the commenters' concerns regarding the use of total particulate matter as the surrogate for HAP and the use of Method 5 for determining compliance, we examined more closely the suitability of Method 5 for measuring particulate matter in tail gas from sulfuric acid plants at primary copper smelters. Method 5 is the basic reference test method used for determining particulate matter emissions from stationary sources. The sampling probe and filter temperature specified for Method 5 (250°F) is below the acid dewpoint for sulfuric acid. Consequently, when sampling sulfuric acid plant tail gas by Method 5, condensed sulfuric acid mist and waters of hydration not driven off at the sampling temperature are included in the probe wash and filter catch, along with any metal HAP contained in the tail gas. Thus, we agree that establishing and determining compliance with a total particulate matter emission limit based on Method 5 may include sulfuric acid mist condensables not related to the control or emissions of metal HAP. Based on some limited test data obtained using Arizona Method A1 (a test method adopted by the State of Arizona for measuring particulate matter in sulfur containing gas streams that excludes acid condensate), the condensate may account for as much as 12 percent of the total particulate catch.

Method 5B was developed specifically to measure nonsulfuric acid particulate matter in circumstances when appreciable quantities of condensable sulfuric acid are present in the stack exhaust to be tested. The procedure is identical to Method 5 except that the front-half of the Method 5 sampling train is maintained at 320°F instead of 250°F, and the probe and filter samples are to be heated in a oven to 320°F for 6 hours prior to weighing. At the higher sampling temperature, most of the sulfuric acid mist and waters of hydration present pass through the probe and filter without condensing. Heating the probe wash residues and sample filter in an oven before weighing volatilizes any condensed sulfuric acid that may have collected in the front-half. Because sulfuric acid mist and waters of hydration are not counted as part of the total particulate catch, the total particulate matter concentration value measured in the front-half by Method 5B will be lower than the concentration value that would have been measured on the filter using Method 5. Given the gas stream characteristics of sulfuric acid plant tail gas, it is our conclusion that Method 5B is the appropriate test method to use for setting a particulate matter concentration limit that serves as a surrogate for metal HAP emissions contained in the tail gas from sulfuric acid plants.

Lacking any available Method 5B emissions test data to set an emission limit, we convened a meeting with company representatives of each of the six smelters potentially subject to the NESHAP. Two options were considered: (1) Derive an emission limit based on the available Method 5 test data and a conversion factor inferred from the limited Arizona Method 1A test data; or (2) gather actual Method 5B test data by testing each of the operating by-product sulfuric acid plants. The consensus view was that Method 5B testing was needed to establish a credible emission limit.

A test program was planned and implemented jointly by us and the companies owning the three copper smelters currently producing copper. The source tests were conducted by an independent consultant hired by the smelter companies. Four individual test runs were conducted at each of the three smelters. To our best knowledge, all of the tests were conducted at normal smelter production levels and under normal acid plant operating conditions.

We considered two approaches in selecting the level of the standard: (1) Base the emission limit on the highest credible individual run measured at the three smelters; or (2) base the limit on the highest three-run average measured at the highest emitting smelter. If we base the emission limit on the highest individual run, the standard expressed in concentration units would be 6.2 mg/dscm. If we base the emission limit using the highest three-run average (highest single performance test), the standard would be 5.0 mg/dscm.

In selecting the appropriate level for the emission limit, consideration was given to the full range of smelter process and acid plant operating conditions which could reasonably be foreseen to recur, under which the standard is to be achieved. This is especially important where the emission limit is applied to a gas stream in which the outlet loading will typically fluctuate within a range of values during the course of normal operations. After examining the design and operating conditions of the three acid plants tested, we can find no discernible differences among the three plants which would lead us to conclude that one is superior or inferior to another. In addition, we believe that each test run was conducted under conditions representative of acceptable sulfuric acid plant performance.

Based on the above considerations, we believe that the performance of the sulfuric acid plant under a reasonable worst case circumstance is best represented by the single highest individual run, and that selecting this highest value will ensure that the standard will be met under all foreseeable acceptable operating conditions. Therefore, we are selecting 6.2 mg/dscm of nonsulfuric acid particulate matter based on measurements using Method 5B as the emission limit for the sulfuric acid plant tail gas.

B. How Did We Select the Emission Limit for Process Fugitive Emissions?

Comment. Four commenters stated that the proposed emission limit of 16 mg/dscm for the process fugitive emissions from smelting furnaces, slag cleaning vessels, and batch converters is overly stringent and is not representative of the MACT floor. The commenters claimed that the source test data we used to select the value consisted of only a few source tests, and that these tests do not account for the range of variability in emissions associated with normal operating conditions. The commenters recommended that the value of the standard be increased to 50 mg/dscm which is consistent with the particulate matter emission limit we proposed for existing copper concentrate dryers.

Response. We selected the application of baghouses as MACT for controlling process fugitive HAP emissions based on the control devices used to control fugitive emissions (i.e., secondary emissions) from batch converters (63 FR 19595 and 19597, April 20, 1998). Four of the five smelters that use secondary hoods to capture the converter fugitive emissions vent the captured gas stream to a baghouse for control. The fifth smelter employs an electrostatic precipitator (ESP). Because the common practice at the smelters is to vent the emissions captured by the hoods over the smelting and slag cleaning vessel tapping ports to the same control device used to control converter secondary emissions, we also selected use of baghouses as the MACT floor for controlling process fugitive emissions from the matte and slag tapping operations at the smelting furnaces and slag cleaning vessels. Consistent with other NESHAP based on application of baghouses as MACT for control of particulate matter emissions, we selected concentration units as the format of the standard.

The data used to select the proposed emission limit consist of results from four performance tests, one test for each of the four smelters employing baghouses for the control of converter secondary emissions. Each test is comprised of three test runs conducted at the baghouse outlets using Method 5.

For the proposed emission limit, we selected the highest average concentration (16 mg/dscm) measured among the four performance tests. Since proposal, we have reexamined the data and our approach to setting the standard. A close review of each of the performance tests shows a high degree of variability and imprecision among individual test runs within a performance test, with the highest measured values ranging from 1½ to 4½ times the lowest measured values. Given the lack of precision among the test results, we reconsidered whether relying on the highest three-run average measured at one smelter truly accounts for the full range of acceptable process and control device operating conditions which could be reasonably foreseen to recur. We believe that a more conservative and, perhaps, better approach in this case is to set the standard based on the highest single credible test run. This will provide better assurance that the standard is achievable under reasonable worst case circumstances. Of the 12 individual test runs, the value of the highest run and the value selected for the final standard is 23 mg/dscm.

C. How Did We Select MACT Floor for Pierce-Smith Converters?

Comment. Several commenters disagreed with our MACT floor determination for existing Pierce-Smith converters. The commenters claimed that CAA section 112(d)(3) requires us to determine the MACT floor for existing sources based on applicable ''emissions limitations'' rather than relying on actual emissions data as we did for the proposed rule. Using an emissions limitations approach based on application of existing State regulations, the commenters concluded that the opacity limit for existing Pierce-

Smith converters should be established at a value of 40 percent opacity.

Response. We disagree with the commenters' assertion that CAA section 112(d)(3) requires us to establish MACT floors for existing sources based on applicable ''emissions limitations.'' We have and continue to use several approaches to establishing MACT floors, depending on the type and quality of the available information. Typically, we examine several approaches and rely on the one best suited for each particular circumstance. The approaches include: (1) Reliance on information such as test data on actual emissions from the pool of sources (the best five sources or best 12 percent) that comprise the best performers; (2) information on applicable emissions limitations or standards specified in State and local regulations and/or operating permits; or (3) a technology approach based on the application of a specific control technology and accompanying performance data. We believe that each of these approaches has merit, and we have relied on using each to various degrees throughout the MACT program.

The emissions limitations approach to establish the MACT floor for Pierce-Smith converters was examined at proposal and dismissed. Of the five smelters in the source category that operate Pierce-Smith converters, only three are subject to an emissions limitation. The converter building at one smelter is subject to a zero percent opacity limit specified in the facility's operating permit. The converter buildings at the two smelters located in Arizona are arguably subject to the State's general 40 percent opacity limit applicable to process fugitive emissions from any source. The converter buildings at the remaining two smelters, both located in New Mexico, are not subject to an opacity limit. Then and now, the commenters supported establishing the MACT floor based on the median or third most stringent emissions limitation. Using this approach, the MACT floor would be 40 percent opacity.

The emissions limitation approach advanced by the commenters is workable only when the outcome produces a realistic inference of actual performance of the best performing sources. This has been affirmed unequivocally by the DC Circuit Court in *Sierra Club* vs. *EPA, 167F.3d.* in which the court opined that to comply with the statute, the EPA's method of setting emissions floors must reasonably estimate the performance of the relevant best performing sources. Observations made by us and the industry at all five of the smelters operating Pierce-Smith converters indicate that actual visible emissions from the converter buildings are typically in the range of zero percent to 10 percent opacity, well below the 40 percent opacity value supported by the commenters. Consequently, we believe that the use of the emissions limitation approach in this case is not appropriate.

Comment. The same commenters making the above comment further stated that if test data on actual emissions is used for determining the MACT floor for Pierce-Smith converters, then the average emissions limitation should be represented by the emissions data for the median performing source of the five best performing sources rather than the average of the emissions data for all five sources as was done for the proposed standard. In this case, the commenters claimed that the median technology for Pierce-Smith converters is the use of primary and secondary ventilation systems for the prevention and capture of emissions coupled with air pollution control devices for sulfur dioxide and particulate matter control. The commenters identified the controls used at the Hayden and Hidalgo smelters as the median technology for Pierce-Smith converters.

Response. We assessed how using the median technology approach would affect the selection of the MACT floor for Pierce-Smith converters. To do so, we evaluated each of the five smelters operating Pierce-Smith converters to determine the median performing source based on both performance data and engineering design. Using either approach, our assessment shows that the Chino Mines smelter is the median performing source of the five smelters that operate Pierce-Smith converters, not the Hayden or Hidalgo smelters as suggested by the commenters. In addition, the opacity value prescribed to the Chino Mines smelter is 3 percent, the same as the value we proposed for the opacity limit for Pierce-Smith converters based on averaging opacity data for all five sources.

To select the median technology based on source performance data, we ranked the converter capture systems used at the five smelters in order of decreasing performance using the average overall opacity value for each smelter. This ranking assumes that the average opacity value is indicative of the overall capture efficiency of the control system (i.e., the lower the opacity, the higher the capture efficiency). For our assessment, we used the overall average opacity values rounded to the next highest whole percent for the five smelters used for the MACT floor determination at proposal. The results of this ranking show that the best performing source is the El Paso smelter (zero percent opacity) followed by, in decreasing order, the San Manuel smelter (1 percent opacity), the Chino Mines smelter (3 percent), the Hidalgo smelter (5 percent), and the Hayden smelter (8 percent opacity). The median performing smelter of the five smelters that operate Pierce-Smith converters is the third best performer, the Chino Mines smelter.

For the engineering design assessment, we first assembled pertinent information on the primary and secondary capture systems used at each of the five affected smelters. The information included hood ventilation rates (both primary and secondary), converter blowing rates (amount of air blown through the tuyeres into the molten bath), and detailed information on the design and physical configurations of each secondary hood.

Each of the five smelters uses the same basic approach to capturing emissions from their Pierce-Smith converter during slag and copper blows. Specifically, a retractable primary hood for capturing the voluminous process emissions generated during blowing and a fixed or sliding secondary hood for capturing the secondary or fugitive emissions that escape capture by the primary hood. Although the basic approach used at each smelter is fundamentally the same, there are, however, differences among the smelters in both the design and operation of their primary and secondary capture systems that affect performance.

The El Paso smelter uses a converter capture system design that is unique compared to the designs used at any of the other smelters. Instead of the fixed or sliding secondary hood designs used by other four smelters, each converter at the El Paso smelter is equipped with an air curtain secondary hood. The air curtain hood encloses the sides and back area around the converter mouth. During converter blowing operations, a horizontal jet of air flows across the open top of the enclosure to provide a continuous sheet or curtain of air that sweeps the process fugitive emissions into an exhaust hood, and subsequently a particulate control device. Capture efficiencies in excess of 90 percent are achieved using air curtain hood systems. Also at the El Paso smelter, any process fugitive emissions that escape capture by the air curtain hoods are further controlled by evacuating the entire converter building to a particulate control device. Thus, effectively 100 percent of the process fugitive emissions from converter operations at the El Paso smelter are captured. Clearly, the use of air curtain secondary hoods in combination with a tertiary building evacuation system represents the best capture system technology used at any of the five smelters that operate Pierce-Smith converters.

We believe that the second best performer is the San Manuel smelter which relies primarily on primary hood ventilation to effect capture. The San Manuel smelter is unique in that it has surplus by-product acid plant capacity which allows each of the converter primary hoods to operate at a substantially higher ventilation rate than is usual for other smelters. The primary hoods at the San Manuel smelter are operated at a primary hood ventilation rate to converter blowing rate ratio of 3.8. In contrast, for the converter primary hoods at other smelters, the ratios range from 2.2 to 2.6. As evidenced by the building opacity data for the San Manuel smelter, operation of the primary hoods at a substantially higher ventilation rate results in enhanced capture efficiency and minimal fugitive emissions due to leakage about the primary hood.

Our assessment of the remaining three smelters supports our earlier finding using the performance data approach; the median or third best performing smelter is the Chino Mines smelter. All three smelters operate their primary hoods similarly and each converter is equipped with a secondary hood. Each of the secondary hoods are, with minor variations, similar in design. The principal difference is that the ventilation rate during converter blowing used for the secondary hoods at the Chino Mines smelter 120,000 standard cubic feet per minute (scfm) is approximately twice that used at the Hayden or Hidalgo smelters (50,000 scfm and 60,000 scfm, respectively). We believe that by operating at this substantially higher ventilation rate, the secondary hood system operated at the Chino Mines smelter is more effective at capturing the process fugitive emissions that escape from the converter primary hood during blowing compared to the secondary capture systems used at the other two smelters. It is, thus, our conclusion that the emissions capture system applied at the Chino Mines smelter is the third best among the five smelters that operate Pierce-Smith converters.

Regardless of whether we base our assessment of performance on average opacity or on engineering design, the smelter that uses the third best performing or median control technology is the Chino Mines smelter. If we had used the median technology approach at proposal to select the opacity limit for smelters that operate Pierce-Smith converters, we would have selected 3 percent, the same value we proposed.

D. Why Did We Modify the Test Protocol Used To Determine Compliance with the Opacity Limits for Existing Copper Converter Departments?

We received no comments on the duration of the observation period needed to obtain the required number of acceptable opacity readings specified by the proposed test protocol for determining compliance with the opacity limits for existing copper converter departments. However, based on our experience using the protocol in the field and further analysis of the data that we collected using the protocol, we decided to revise the test protocol for the final rule with respect to how the opacity data are compiled and averaged in order to reduce the duration of the observation period needed to obtain the required number of acceptable opacity readings for a compliance determination.

The proposed test protocol specified making opacity readings using Method 9 over an observation period sufficient to obtain a minimum of 20 continuous 6-minute average opacity values during times when at least one converter is blowing and none of the specific visible emissions interferences listed in the test protocol has occurred. Our experience indicates that to obtain the minimum 20 continuous 6-minute averages required by the proposed test protocol, an observation period lasting 4 to 5 days or longer would be needed. This occurs for two reasons. First, Method 9 requires an observer when making opacity readings to be positioned with the sun to the observer's back and at a position from the source such that the observer's line-of-sight is approximately perpendicular to the longer axis of the converter building. This generally limits the window for observation at a smelter to 4 to 5 hours on any given day. Second, many of the continuous 6-minute periods are invalidated due to unavoidable, normal production events that occur inside the converter building that are unrelated to the converter blowing operations but also generate visible emissions. These visible emissions can potentially interfere with the visible emissions from the converter capture systems as seen by the outside observers. Because such interferences may misrepresent the actual performance of the converter capture system at a given smelter, the opacity readings made during these periods are invalidated and excluded from the compliance determination.

We have decided to revise the test protocol to allow for a shorter, more reasonable observation period to obtain the required number of acceptable opacity readings (i.e., opacity readings when there is at least one converter blowing without any visible emissions interferences). We are revising the test protocol to require averaging a minimum of 120 acceptable 1-minute average opacity values in place of the proposed 20 acceptable 6-minute average opacity values. Under the final test protocol, compliance will be demonstrated against the average opacity recorded for a minimum of 120 1-minute averages of eight readings per minute (a team of two opacity observers, each making four readings at 15-second intervals). This revision provides the same minimum number of opacity values for a performance test (a minimum total of 120 minutes of acceptable opacity readings) as the proposed procedure, without the additional restriction that the acceptable readings also must be made in continuous 6-minute blocks. With this change, smelter owners and operators should be able to obtain the required number of acceptable opacity readings in a more reasonable 1- to 2-day observation period.

E. How Did We Select the Final Opacity Limits for Existing Copper Converter Departments?

1. Pierce-Smith Converters

Because of our decision to change the test protocol to facilitate compliance determinations, we concluded that a reexamination of the proposed opacity limit for existing Pierce-Smith converters using the new protocol was warranted to determine whether using the protocol affected the proposed, and ultimately, the final opacity limit. As specified by the new protocol, we considered all 1-minute average opacity values recorded during the field observations when at least one converter was blowing, and there were no visible emissions interferences from other copper production activities or malfunctions inside the copper converter building. Consistent with the MACT floor approach we used at proposal, we based our selection of the MACT floor on the average of the test data for the five best performing sources (in this case, all five smelters in the source category that operate Pierce-Smith converters).

The field data considered at proposal and reexamined include a compilation of visible emission observations and process data gathered in the spring of 1997 at each of the smelters operating

Pierce-Smith or Hoboken converters. A description of the field data collection and analysis procedures used to compile the data is available in the preamble to the proposed rule (63 FR 19596). In general, a sufficient number of opacity observations were obtained during the site visits to compile a data base that included for each smelter a total of 400 to 500 minutes of 1-minute average opacity readings. Not included in these data are any opacity readings made at a smelter during periods when the converter operations were judged not to be representative of normal operations (e.g., during a converter capture system malfunction) or when the opacity observation conditions did not meet Method 9 criteria (e.g., improper sun angle).

For each smelter, we prepared a data summary that listed the average opacity values for only those 1-minute intervals during which at least one of the converters was blowing, and there were no visible emissions interferences as defined by the test protocol. For four of the smelters, there are a sufficient number of acceptable 1-minute intervals to simulate two performance tests as specified by the test protocol (the total number of acceptable 1-minute intervals can be divided into two blocks with at least 120 1-minute average opacity values in each block). For the fifth smelter, we have a total of 167 minutes of acceptable 1-minute average opacity values which we treated as a single performance test. The individual performance test results are presented in the BID.

Next, we calculated the average percent opacity for each performance test for a given smelter. Each of the calculated averages that includes a fraction of a percent opacity was then rounded up to the next whole number. For the smelters having two performance tests, we selected the higher of the two recorded values as the indicator of performance for the smelter. Following this procedure, the average opacity values for the five individual smelters are, in order of increasing value, zero percent, 1 percent, 3 percent, 5 percent, and 10 percent. The arithmetic average of these five opacity values is 3.8 percent which rounds to 4 percent opacity. Therefore, we selected the MACT floor for Pierce-Smith converters to be 4 percent opacity.

In response to comments received since proposal, we have evaluated two possible beyond-the-floor alternatives for the control of Pierce-Smith converters: Alternative 1—retrofit of air curtain secondary hoods on each converter at each affected smelter to complement the primary and secondary capture systems; and Alternative 2—installation of a converter building evacuation system. Total annual costs to implement these options were estimated assuming that each of the five smelters with Pierce-Smith converters would be subject to the rule (i.e., each smelter is a major source of HAP emissions). Total capital costs for implementing Alternative 1 at the five smelters are estimated to be $41 million. Implementing Alternative 1 is estimated to reduce HAP emissions beyond the floor by 29 tpy at a total annual cost of $12 million per year or about $430,000 per ton of HAP reduction. Total capital costs for implementing Alternative 2 at the five smelters are estimated to be $93 million. Implementing Alternative 2 is estimated to reduce HAP emissions beyond the floor by 34 tpy at a total annual cost of $32 million per year or about $910,000 per ton of HAP reduction. Taking into consideration the costs of implementing either of the beyond-the-floor alternatives against the level of additional emission reduction estimated to be achieved, we concluded that neither of these beyond-the-floor alternatives is reasonable. Therefore, MACT for Pierce-Smith converters is 4 percent opacity, and we chose this value for the final standard.

2. Hoboken Converters

Comment. One commenter stated that the proposed opacity limit for existing Hoboken converters was based on a set of opacity readings that was too small to adequately reflect an achievable emission limit. Furthermore, the commenter stated that these data are not representative of normal operating conditions at the one existing smelter using Hoboken converters. The commenter submitted additional opacity data for the existing Hoboken converters. The commenter stated that these data were more representative of a two-converter operation which is typical at the smelter and requested that the data be used to recalculate the opacity limit.

Response. We examined the new data submitted by the commenter according to the revised test protocol. It is important to remember that the test protocol allows consideration of only those opacity readings that are taken during converter blowing and when no visible emissions interferences occur (as defined in the test protocol). Opacity readings during periods when visible emissions interferences occur are excluded from the calculation. Our analysis of the new data provided by the commenter yields an average opacity value of 3.8 percent which supports the 4 percent opacity limit proposed for Hoboken converters.

F. Why Did We Change the Compliance Date for Existing Sources?

Comment. Three commenters requested that the compliance date for existing sources be extended to the full 3 years allowed under the CAA. The commenters, all companies operating primary copper smelters potentially subject to the NESHAP, claimed that the control measures required to meet the requirements of the proposed rule cannot be readily implemented within the proposed 2-year period. The principal reason expressed by the commenters for extending the compliance period to 3 years is the rule will require smelters to plan and implement several significant changes, some of which cannot be completed within a 2-year period.

Response. Section 112(i)(3) of the CAA directs us to establish a compliance date for existing sources which provides for compliance with the applicable standards as expeditiously as practicable but no later than 3 years after the effective date of the standards. For the final rule, we reconsidered our proposed compliance date for existing sources subject to the primary copper smelter NESHAP. We expect that many of the existing sources that could be subject to the rule already have the type of controls in place that are needed to comply with the standards. However, we also recognize that the control systems for some existing sources subject to the rule will likely need to be upgraded to meet the standards. To allow smelter owners and operators a reasonable period of time to design, procure, install, and startup these control upgrades, we decided to establish the compliance date for existing sources under the final rule at no later than 3 years after promulgation.

G. Why Did We Change the Inspection and Monitoring Requirements?

1. Batch Converter Capture System Inspection Requirements

Comment: Three commenters stated that the requirement to inspect the batch converter capture systems on a monthly basis should be limited to those components of the converter capture system that are readily accessible during normal operations. The proposed requirement to visually inspect each month all of the capture system components is not practical, if not impossible to achieve. For example, the fan blade inspection that would be required under the proposed rule can only be performed when the fan housing is opened, and operations must be shutdown to do this. Another example is the practicality of inspecting duct components that are covered with insulation.

Response. The intended purpose of the monthly inspection is to visually check the accessible components of the capture system for any defects or damage that could diminish or impair capture system performance from the level that the capture system is capable of achieving when it is properly operated and maintained. We also recognize that certain components of the capture system, such as the examples cited by the commenters, cannot be inspected by workers without shutdown of the process or disassembling components. It would be impractical to inspect these components on a monthly basis. In the final rule, we have revised the wording of the visual inspection requirement for capture systems to clarify which capture system components are to be inspected on a monthly basis. The final rule specifies that the owner or operator inspect those components of the capture system that can affect the performance of the system to collect the gases and fumes emitted from the affected source (e.g., hoods, exposed ductwork, dampers, pressure senors, damper switches). During each inspection, the inspector must visually check the physical appearance of the equipment (e.g., presence of holes, dents, or other damage in hoods or ductwork) and check the settings for each damper and other devices which can be adjusted to control flow in the capture system.

2. Operating Limit for Baghouse Leak Detector Alarms

Comment. Six commenters objected to our proposed 5 percent limit on baghouse leak detector alarms during each 6-month reporting period. Reasons cited included: (1) The use of baghouse leak detectors for baghouses operated at copper smelters is unproven technology; (2) the selection of the proposed alarm time limit is arbitrary; (3) experience of commenters has shown that the detectors are subject to false alarms; (4) any limit on baghouse leak detector time should not include alarms during periods of startup, shutdown, or malfunction; and (5) what the EPA means by ''initiation of corrective action'' is not clear for the purpose of counting the elapsed alarm time.

Response. The use of baghouse leak detectors is a proven technology that can provide an effective means for early detection of bag failures allowing the baghouse operator to take timely action to correct the problem and minimize excessive particulate matter emissions that would result if the problem was not promptly addressed. These detectors currently are used for baghouse applications at primary lead smelters and other metallurgical facilities with gas stream characteristics and operating conditions similar to those control situations at primary copper smelters for which an owner or operator also may choose to use a baghouse to comply with the rule requirements. We believe that there is no reason why baghouse leak detectors cannot similarly be used on baghouses at primary copper smelters.

The selection of the limit value for alarm time is not arbitrary. We selected this value based on our judgement of an upper limit to the number of alarms that can reasonably be expected to occur (excluding false alarms) over a 6-month period for a baghouse for which the owner or operator implements good inspection and maintenance practices.

We reviewed the proposed language for use of baghouse leak detectors with respect to concerns raised by the commenters about false alarms. For the final rule, we have revised the requirements for baghouse leak detectors to be consistent with the requirements we promulgated for the Primary Lead Smelting NESHAP under 40 CFR part 63, subpart TTT. These requirements include provisions which address the concerns raised by the commenters about counting false alarms and alarms during startup, shutdown, or malfunctions in the alarm time limit compliance calculation. Under the Primary Copper Smelting NESHAP, alarms are not included in the sum of alarm times for purposes of calculating the percentage of time the alarm on the bag leak detection system sounds if it is determined that an alarm sounds solely as the result of a malfunction of the bag leak detection system, or if the alarm sounds as result of a condition that is described in the smelter's startup, shutdown, and malfunction plan (SSMP) and the procedures in the plan described to respond to this condition are implemented.

Finally, when an alarm first sounds from the bag leak detector, we recognize that there are situations when the cause of the alarm cannot be corrected or fixed immediately or within a short period of a few hours. The correction of a torn bag or other problem which can trip the alarm may require that the baghouse be shutdown to allow facility personnel to enter the baghouse when it is safe to do so. We revised the language for the final rule to clarify that alarm time is counted as the time elapsed from when the alarm first sounds until the owner or operator acknowledges the alarm and determines the cause of the alarm. Alarm time is not the total time until the problem which tripped the alarm is corrected.

H. Is the Kennecott Utah Copper Smelter a Major or Area Source of HAP Emissions?

Comment. We received two comments challenging our conclusions that the Kennecott Utah Copper Corporation smelter located near Garfield, Utah, does not emit HAP at major source levels and is, therefore, an area source. The Utah Department of Environmental Quality (DEQ) commented that the information that we used to characterize the emissions potential of the smelter is incorrect or outdated. Data in the smelter's emission inventory report for the year 1997 indicate that the smelter did emit and has the potential to emit HAP at major source levels. The Kennecott Utah Copper Corporation (hereafter referred to as ''Kennecott''), owner and operator of the smelter, commented and acknowledged that the HAP emissions from its smelter in 1997 exceeded the major source threshold levels, but that the company planned to install new air pollution control equipment in the anode furnace and casting departments that will reduce HAP emissions, especially emissions of lead compounds, to well below major source levels.

Response. The proposed rule was developed before any HAP emissions data were available based on the fulltime operation of the Kennecott smelter. At the time, all the available evidence indicated that the smelter would not be a ''major source'' of HAP emissions because of the smelter's unique design and anticipated level of emission control.

In their comments on the proposed rule, the Utah DEQ presented HAP emissions data obtained in 1997, the first full year of operation of the new smelter. Contrary to the company's, the State's, and our expectations, total annual HAP emissions from the smelter in 1997 exceeded the major source threshold level. Specifically, lead emissions, the most prominent HAP emitted, were reported to exceed 23 tpy. This level is well above the 10 tpy single HAP threshold level for major sources and exceeds substantially the smelter's title V permitted lead emission rate of 1.3 pounds per hour, which is equivalent to about 6 tpy.

Extensive in-plant testing by Kennecott determined that the primary source of the excess lead emissions was the two anode furnaces used to refine the blister copper flowing from the flash converting furnace prior to anode casting. At the time, the combined off-gas from both furnaces was treated in two high-energy wet scrubbers installed in series and designed to achieve both sulfur dioxide and particulate matter control. Testing of the anode furnace off-gas and the scrubber system outlet gas stream showed much higher levels of fine particulate and lead emissions than originally anticipated. Results of particle size measurements performed on the anode furnace off-gas indicated that more than half of the particulate matter was less than 1 micron in diameter with significant portions less than 0.3 microns.

During 1999 and 2000, Kennecott installed additional air pollution control equipment to better control the fine particulate and lead compounds in the anode furnace process off-gas. A quench tower, a lime injection system, and a baghouse were installed upstream of the two wet scrubbers. With the installation and startup of the new controls, the levels of fine particulate matter and HAP metal compounds emitted in the anode furnace off-gas have been significantly reduced. Based on results from a month-long test program conducted in January 2001, total annual lead emissions from the smelter were determined to be approximately 1.75 tpy, and the emissions of all metals to be approximately 2.6 tpy. These annual HAP emissions levels are well below the 10 tpy major source threshold level for a single HAP and 25 tpy major source threshold level for total HAP. Consequently, the smelter is no longer a major source of HAP emissions.

On February 15, 2001, Kennecott submitted to the Utah DEQ a notification of compliance with all title V operating permit limits and conditions including its lead limit of 1.3 pounds per hour. The requirements of the smelter's title V operating permit are federally enforceable, and both the State of Utah and the EPA have authority to take enforcement action should Kennecott fail to continue to operate the smelter in compliance with its permitted emission limits.

I. To What Extent Was the Kennecott Utah Copper Smelter Considered in the MACT Floor Determinations for New and Existing Sources?

Comment. Two commenters objected to the exclusion of the Kennecott smelter from the primary copper smelter source category definition and from consideration as part of the MACT floor determination for new and existing sources. Both commenters argued for a broader definition than that contained in the April 1998 proposal. They supported a definition similar to that used in the new source performance standard (NSPS) and Inorganic Arsenic NESHAP that would include smelters using continuous flash converters like that used at the rebuilt Kennecott smelter. Both commenters also argued for the need to include the Kennecott smelter and its continuous flash converter in the MACT floor determination for the six smelters that employ the more conventional batch converters (Pierce-Smith and Hoboken). In addition, one of the commenters suggested that Kennecott's continuous flash converter should be considered the best controlled similar source and, thus, new source MACT for the primary copper smelting source category.

Response. At the time we initiated work on the NESHAP, the primary copper smelting source category was comprised of seven smelters, all of which were engaged in the production of anode copper from copper ore concentrates by first smelting the concentrates to obtain molten copper matte in a flash smelting furnace, and then converting the molten matte to blister copper using batch converters followed by fire refining and anode casting. Consequently, every smelter that potentially could be a major HAP source used either Pierce-Smith converters (five smelters) or Hoboken converters (one smelter).

In the intervening years, Kennecott shutdown its existing smelter at Garfield, Utah, that had used batch converters. The company built a new smelter at the same location that uses a flash smelting furnace similar to that used at the other smelters, and a new continuous flash converter. The Kennecott smelter is the only domestic smelter that does not use batch converters, either Pierce-Smith or Hoboken designs, to produce blister copper.

From the perspective of raw materials processed and final product shipped, a smelter using batch-converting technology and a smelter using continuous flash-converting technology would appear to be similar, both process copper sulfide ore concentrate and produce anode copper for shipment to a electrolytic refining facility. We agree that, in general, the overall function of both of these smelters is to produce anode copper from copper ore concentrates. However, there are significant dissimilarities between how the anode copper is produced at the smelter using continuous flash converters compared with the smelters using batch converters.

The use of a continuous flash converter allows blister copper to be produced in a continuous process at the Kennecott smelter instead of a batch process as is required at the other smelters. At the Kennecott smelter, molten copper matte tapped from the continuous flash smelting furnace is first granulated by quenching with water to form solid granules of copper matte. These matte granules are then ground to a fine texture and fed to the continuous flash converter. Slag and blister copper produced are tapped from ports near the bottom of the furnace. Molten slag is transferred from the furnace to a slag hauler for subsequent disposal. Molten blister copper is transferred in heated launders directly to the anode furnace for further refining into anode copper.

Due to its unique design and operation, most of the process fugitive emission sources associated with smelters using batch converting are eliminated at the Kennecott smelter. There are no transfers of molten material in open ladles between the smelting, converting, and anode refining departments at the Kennecott smelter. In addition, there are no fugitive emissions associated with the repeated rolling-out of converters for charging, skimming, and pouring. Also, only one continuous flash converter is needed at the Kennecott smelter compared with the need for three or more batch copper converters at the other smelters.

Another difference between continuous flash converters versus batch converters is that blister copper produced by the continuous flash converter at the Kennecott smelter contains higher levels of residual sulfur and metal HAP impurities than levels seen in blister copper produced by batch converters. As a result, the anode furnace and casting departments at the Kennecott smelter use emission controls for sulfur dioxide and metal HAP emissions that are not needed at smelters using batch converters.

These differences aside, we have reconsidered whether the source category definition included in the April 1998 proposal should be broadened to include smelters using continuous flash-converting technology like the Kennecott smelter. We have concluded that the definition should be broadened and made consistent with that used to define primary copper smelters pursuant to both the primary copper smelter NSPS and Inorganic Arsenic NESHAP. We are changing the definition of primary copper smelters to mean ''any installation or any intermediate process engaged in the production of copper from copper sulfide ore concentrates through the use of pyrometallurgical techniques.''

Relative to the inclusion of the Kennecott smelter in the MACT floor determination, we disagree with the commenters that primary copper smelters using continuous flash converting should be grouped with primary copper smelters using batch converting for the existing source MACT floor determination. Section 112 of the CAA provides the Administrator the discretion to divide categories of sources into subcategories where appropriate. In establishing such subcategories for other source categories in the NESHAP program, we have considered factors such as differences in process operations (including differences between batch and continuous operation), emission characteristics, control device applicability, and opportunities for pollution prevention.

We believe that the design and operating differences between these two classes of copper converters make these sources so dissimilar with respect to HAP emission sources, level of HAP emissions, and the subsequent control measures required to control HAP emissions from these sources as to warrant the creation of two separate subcategories of primary copper smelters: primary copper smelters using batch converters, and primary copper smelters using continuous flash converters. Thus, we conclude that consideration of the Kennecott smelter in the MACT floor determinations for existing sources within the subcategory of primary copper smelters using batch converters is inappropriate since it is not among the pool of sources that comprises the subcategory.

Regarding the comment on new source MACT, we believe that there is merit to the commenter's position that for the purpose of selecting new source MACT for copper converter operations, the best controlled similar source uses flash converting. This is especially true considering our decision to change the source category definition to include all smelters engaged in the production of copper from copper sulfide ore concentrates regardless of the pyrometallurgical (smelting) techniques used. The practical effect of a decision to base new source MACT on flash converting would be a ban on the construction of a new converter department employing batch converters, which would lead to the virtual elimination of process fugitive emissions discharged from new copper converter departments. This would be best accomplished through a work practice standard that would expressly prohibit the construction of a new copper converter department employing batch copper converters. Consequently, we have selected as the final standard a work practice standard that prohibits altogether the operation of batch copper converters at new copper converter departments. We believe that the impact of this decision on the industry is none, given both the availability of newer and cleaner converting technologies, and the rigor of the new source review permitting process to which a new source would be subject.

V. Administrative Requirements

A. Executive Order 12866, Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the EPA must determine whether the regulatory action is "significant" and therefore subject to review by the Office of Management and Budget (OMB) and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligation of recipients thereof; or

(4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

It has been determined that this rule is not a "significant regulatory action" under the terms of Executive Order 12866, and is therefore not subject to OMB review.

B. Executive Order 13132, Federalism

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

Under Section 6 of Executive Order 13132, the EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or the EPA consults with State and local officials early in the process of developing the proposed regulation. The EPA also may not issue a regulation that has federalism implications and that preempts State law, unless the Agency consults with State and local officials early in the process of developing the proposed regulation.

This final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. No State or local governments own or operate primary copper smelters. Thus, the requirements of section 6 of the Executive Order do not apply to this rule.

C. Executive Order 13045, Protection of Children From Environmental Health Risks and Safety Risks

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

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. This rule is not subject to Executive Order 13045 because it is based on control technology performance and not on health or safety risks.

D. Executive Order 13175, Consultation and Coordination with Indian Tribal Governments

Executive Order 13175, entitled "Consultation and Coordination with

Indian Tribal Governments'' (65 FR 67249, November 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.'' ''Policies that have tribal implications'' is defined in the Executive Order to include regulations that have ''substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes.''

Under section 5(b) of Executive Order 13175, the EPA may not issue a regulation that has tribal implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by tribal governments, or the EPA consults with tribal officials early in the process of developing the proposed regulation. Under section 5(c) of Executive Order 13175, the EPA may not issue a regulation that has tribal implications and that preempts tribal law, unless the Agency consults with tribal officials early in the process of developing the proposed regulation.

This final rule does not significantly or uniquely affect the communities of Indian tribal governments. No tribal governments own or operate primary copper smelters. Accordingly, the requirements of Executive Order 13175 do not apply to this action.

E. Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, the EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures to State, local, and tribal governments, in 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 the EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least-costly, most cost-effective, or least-burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows the EPA to adopt an alternative other than the least-costly, most cost-effective, or least-burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before the EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of the EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that this rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any 1 year. In addition, the EPA has determined that this final rule contains no regulatory requirements that might significantly or uniquely affect small governments because it contains no requirements that apply to such governments or impose obligations upon them. Therefore, today's final rule is not subject to the requirements of section 203 of the UMRA.

F. Regulatory Flexibility Act (RFA), as Amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 et seq.

The RFA generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) A small business that is a business having less than 1,000 employees; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

Based on the Small Business Administration's NAICS-based size definitions and reported employment data for the affected companies, the Agency identified no small businesses in the Primary Copper Smelting and Refining industry (NAICS code 331411). After considering the economic impacts of today's final rule on small entities, it has been determined that this action will not have a significant economic impact on a substantial number of small entities. All smelters potentially subject to the rule are owned by international corporations and employ more than 1,000 employees. This rule will not impose any requirements on small entities. No small businesses, small government jurisdictions, nor small organizations own or operate primary copper smelters potentially subject to the rule.

G. Paperwork Reduction Act

The information collection requirements in this final rule are being submitted for approval to OMB under the requirements of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* An information collection request (ICR) document has been prepared by EPA (ICR No. 1850.03), and a copy may be obtained from Sandy Farmer, Office of Environmental Information, Collection Strategies Division, U.S. Environmental Protection Agency (2137), 1200 Pennsylvania Avenue, NW., Washington, DC 20460, or by calling (202) 260–2740.

The information collection requirements in the final rule include mandatory notifications, records, and reports required by the NESHAP general provisions (40 CFR part 63, subpart A). These information requirements are needed to confirm the compliance status of major sources, to identify any nonmajor sources not subject to the standard and any new or reconstructed sources subject to the standards to confirm that emission control devices are being properly operated and maintained and to ensure that the standards are being achieved. Based on the recorded and reported information, the EPA can decide which facilities, records, or processes should be inspected. These recordkeeping and reporting requirements are specifically authorized under CAA section 114 (42 U.S.C. 7414). All information submitted to EPA for which a claim of confidentiality is made will be safeguarded according to EPA policies in 40 CFR part 2, subpart B.

The annual public reporting and recordkeeping burden for this collection of information (averaged over the first 3 years after the effective date of this rule and assuming that all six smelters with batch converters are operating and subject to the rule) is estimated to total 20,500 labor hours per year at a total annual cost of $923,800. This estimate includes initial notifications, preparation of a SSMP, preparation of a fugitive dust control plan, annual performance testing, semiannual compliance reports, and recordkeeping. Total capital costs associated with the monitoring equipment over the 3-year period of the ICR is estimated at $276,000. The total annualized cost of the monitoring equipment is estimated at $98,000. This estimate includes the capital, operating, and maintenance costs associated with the installation and operation of the monitoring equipment.

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

An Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control number for EPA's regulations are listed in 40 CFR part 9 and 48 CFR chapter 15.

H. National Technology Transfer and Advancement Act of 1995

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

This rulemaking involves technical standards. The Agency conducted a search to identify potentially applicable voluntary consensus standards. However, we identified no such standards, and none were brought to our attention in comments. Therefore, we have decided to use EPA Reference Methods 1, 2, 3, 4, 5, 5B, and 29 of 40 CFR part 60, appendix A.

I. Congressional Review Act

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

J. Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution or Use

This final rule is not subject to Executive Order 13211 (66 FR 28355, May 22, 2001) because it is not a significant regulatory action under Executive Order 12866.

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: May 15, 2002.

Christine Todd Whitman,

Administrator.

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

PART 63—[AMENDED]

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

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

2. Part 63 is amended by adding subpart QQQ to read as follows:

Subpart QQQ—National Emission Standards for Hazardous Air Pollutants for Primary Copper Smelting

Sec.

What This Subpart Covers

Emission Limitations and Work Practice Standards

Operation and Maintenance Requirements

General Compliance Requirements

Initial Compliance Requirements

Continuous Compliance Requirements

Notifications, Reports and Records

Other Requirements and Information

Figure 1 to Subpart QQQ of Part 63—Data Summary Sheet for Determination of Average Opacity.

Subpart QQQ—National Emission Standards for Hazardous Air Pollutants for Primary Copper Smelting

What This Subpart Covers

§ 63.1440 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for primary copper smelters. This subpart also establishes requirements to demonstrate initial and continuous compliance with all applicable emission limitations, work practice standards, and operation and maintenance requirements in this subpart.

§ 63.1441 Am I subject to this subpart?

You are subject to this subpart if you own or operate a primary copper smelter that is (or is part of) a major source of hazardous air pollutant (HAP) emissions on the first compliance date that applies to you, and your primary copper smelter uses batch copper converters as defined in § 63.1459. Your primary copper smelter is a major source of HAP if it emits or has the potential to emit any single HAP at the rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year.

§ 63.1442 What parts of my plant does this subpart cover?

(a) This subpart applies to each new and existing affected source at your primary copper smelter. The affected sources are each copper concentrate dryer, each smelting furnace, each slag cleaning vessel, each copper converter department, and the entire group of fugitive emission sources, as defined in § 63.1459.

(b) An affected source at your primary copper smelter is existing if you commenced construction or reconstruction of the affected source before April 20, 1998.

(c) An affected source at your primary copper smelter is new if you commenced construction or reconstruction of the affected source on or after April 20, 1998. An affected source is reconstructed if it meets the definition of ''reconstruction'' in § 63.2.

§ 63.1443 When do I have to comply with this subpart?

(a) If you have an existing affected source, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you no later than June 13, 2005.

(b) If you have a new affected source and its initial startup date is on or before June 12, 2002, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you by June 12, 2002.

(c) If you have a new affected source and its initial startup date is after June 12, 2002, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you upon initial startup.

(d) If your primary copper smelter is an area source that becomes a major source of HAP, the compliance dates listed in paragraphs (d)(1) and (2) of this section apply to you.

(1) Any portion of the existing primary copper smelter that is a new affected source or a new reconstructed source must be in compliance with this subpart upon startup.

(2) All other parts of the primary copper smelter must be in compliance with this subpart no later than 3 years after it becomes a major source.

(e) You must meet the notification and schedule requirements in § 63.1454. Several of these notifications must be submitted before the compliance date for your affected source.

Emission Limitations and Work Practice Standards

§ 63.1444 What emissions limitations and work practice standards must I meet for my copper concentrate dryers, smelting furnaces, slag cleaning vessels, and copper converter departments?

(a) *Copper concentrate dryers.* For each copper concentrate dryer, you must comply with the emission limitation in paragraph (a)(1) or (2) of this section that applies to you.

(1) For each existing copper concentrate dryer, you must not cause to be discharged to the atmosphere from the dryer vent any gases that contain total particulate matter in excess of 50 milligrams per dry standard cubic meter (mg/dscm) as measured using the test methods specified in § 63.1450(a).

(2) For each new copper concentrate dryer, you must not cause to be discharged to the atmosphere from the dryer vent any gases that contain total particulate matter in excess of 23 mg/dscm as measured using the test methods specified in § 63.1450(a).

(b) *Smelting furnaces.* For each smelting furnace, you must comply with the emission limitations and work practice standards in paragraphs (b)(1) and (2) of this section.

(1) For each smelting furnace, you must not cause to be discharged to the atmosphere any process off-gas that contains nonsulfuric acid particulate matter in excess of 6.2 mg/dscm as measured using the test methods specified in § 63.1450(b). Process off-gas from a smelting furnace is generated when copper ore concentrates and fluxes are being smelted to form molten copper matte and slag layers.

(2) For each smelting furnace, you must control the process fugitive emissions released when tapping copper matte or slag from the smelting furnace according to paragraphs (b)(2)(i) and (ii) of this section.

(i) At all times when copper matte or slag is tapped from the smelting furnace, you must operate a capture system that collects the gases and fumes released from the tapping port in use. The design and placement of this capture system must be such that the tapping port opening, launder, and receiving vessel (e.g., ladle, slag pot) are positioned within the confines or influence of the capture system's ventilation draft during those times when the copper matte or slag is flowing from the tapping port opening.

(ii) You must not cause to be discharged to the atmosphere from the capture system used to comply with paragraph (b)(2)(i) of this section any gases that contain total particulate matter in excess of 23 mg/dscm as measured using the test methods specified in § 63.1450(a).

(c) *Slag cleaning vessels.* For each slag cleaning vessel, you must comply with the emission limitations and work practice standards in paragraphs (c)(1) through (3) of this section that apply to you.

(1) For each slag cleaning vessel, except as provided for in paragraph (c)(2) of this section, you must not cause to be discharged to the atmosphere any process off-gas that contains nonsulfuric acid particulate matter in excess of 6.2 mg/dscm as measured using the test methods specified in § 63.1450(b).

(2) As an alternative to complying with the emission limit for nonsulfuric acid particulate matter in paragraph (c)(1) of this section, for each existing slag cleaning vessel you may choose to comply with the emission limit for total particulate matter specified in this paragraph (c)(2). You must not cause to be discharged to the atmosphere any process off-gas that contains total particulate matter in excess of 46 mg/dscm as measured using the test methods specified in § 63.1450(a).

(3) For each slag cleaning vessel, you must control process fugitive emissions released when tapping copper matte or slag from the slag cleaning vessel according to paragraphs (c)(3)(i) and (ii) of this section.

(i) At all times when copper matte or slag is tapped from the slag cleaning vessel, you must operate a capture system that collects the gases and fumes released from the tapping port in use. The design and placement of this capture system must be such that the tapping port opening, launder, and receiving vessel (e.g., ladle, slag pot) are positioned within the confines or influence of the capture system's ventilation draft during those times when the copper matte or slag is flowing from the tapping port opening.

(ii) You must not cause to be discharged to the atmosphere from the capture system used to comply with paragraph (c)(3)(i) of this section any gases that contain total particulate matter in excess of 23 mg/dscm as measured using the test methods specified in § 63.1450(a).

(d) *Existing copper converter departments.* For each existing copper converter department, you must comply with the emission limitations and work practice standards in paragraphs (d)(1) through (6) of this section that apply to you.

(1) You must operate a capture system that collects the process off gas vented from each batch copper converter. At all times when one or more batch copper converters are blowing, you must operate the capture system according to the written operation and maintenance plan that has been prepared according to the requirements in § 63.1447(b).

(2) If your copper converter department uses Pierce-Smith converters, the capture system design must include use of a primary hood that covers the entire mouth of the converter vessel when the copper converter is positioned for blowing. Additional hoods (e.g., secondary hoods) or other capture devices must be included in the capture system design as needed to achieve the opacity limit in paragraph (d)(4) of this section. The capture system design may use multiple intake and duct segments through which the ventilation rates are controlled independently of each other, and individual duct segments may be connected to separate control devices.

(3) If your copper converter department uses Hoboken converters, the capture system must collect all process off-gas vented during blowing through the side-flue intake on each converter vessel.

(4) You must operate the capture system such that any visible emissions exiting the roof monitors or roof exhaust fans on the building housing the copper converter department meet the opacity limit as specified in paragraphs (d)(4)(i) and (ii) of this section.

(i) The opacity of any visible emissions exiting the roof monitors or roof exhaust fans on the building housing the copper converter department must not exceed 4 percent as determined by a performance test conducted according to § 63.1450(c).

(ii) The opacity limit in paragraph (d)(4)(i) of this section applies only at those times when a performance test is conducted according to § 63.1450(c). The requirements for compliance with opacity and visible emission standards specified in § 63.6(h) do not apply to this opacity limit.

(5) You must not cause to be discharged to the atmosphere from any Pierce-Smith converter primary hood capture system or Hoboken converter side-flue intake capture system any process off-gas that contains nonsulfuric acid particulate matter in excess of 6.2 mg/dscm as measured using the test methods specified in § 63.1450(b).

(6) You must not cause to be discharged to the atmosphere from any secondary capture system any gases that contain total particulate matter in excess of 23 mg/dscm as measured using the test methods specified in § 63.1450(a).

(e) *New copper converter departments.* For each new copper converter department for which construction commenced on or after April 20, 1998, the use of batch copper converters is prohibited.

(f) *Baghouses.* For each baghouse applied to meet any total particulate matter emission limit in paragraphs (a) through (d) of this section, you must operate the baghouse such that the bag leak detection system does not alarm for more than 5 percent of the total operating time in any semiannual reporting period.

(g) *Venturi wet scrubbers.* For each venturi wet scrubber applied to meet any total particulate matter emission limit in paragraphs (a) through (d) of this section, you must maintain the hourly average pressure drop and scrubber water flow rate at or above the minimum levels established during the initial or subsequent performance test.

(h) *Other control devices.* For each control device other than a baghouse or venturi wet scrubber applied to meet any total particulate matter emission limit in paragraphs (a) through (d) of this section, you must operate the control device as specified in paragraphs (h)(1) and (2) of this section.

(1) You must select one or more operating parameters, as appropriate for the control device design, that can be used as representative and reliable indicators of the control device operation.

(2) You must maintain the hourly average value for each of the selected parameters at or above the minimum level or at or below the maximum level, as appropriate for the selected parameter, established during the initial or subsequent performance test.

§ 63.1445 What work practice standards must I meet for my fugitive dust sources?

(a) You must control particulate matter emissions from fugitive dust sources at your primary copper smelter by operating according to a written fugitive dust control plan that has been approved by the designated authority. For the purpose of complying with this paragraph (a) you may use an existing fugitive dust control plan provided that the plan complies with the requirements of this section. A fugitive dust control plan is considered to be approved if the plan has been incorporated in your applicable State implementation plan, and the document addresses the fugitive dust sources specified in paragraph (b) of this section and includes the information specified in paragraph (c) of this section.

(b) Your fugitive dust control plan must address each of the fugitive dust emission sources listed in paragraphs (b)(1) through (6) of this section that are located at your primary copper smelter.

(1) On-site roadways used by trucks or other motor vehicles (e.g., front-end loaders) when transporting bulk quantities of fugitive dust materials. Paved roads and parking areas that are not used by these vehicles do not need to be included in the plan (e.g., employee and visitor parking lots).

(2) Unloading of fugitive dust materials from trucks or railcars.

(3) Outdoor piles used for storage of fugitive dust materials.

(4) Bedding areas used for blending copper concentrate and other feed constituents.

(5) Each transfer point in conveying systems used to transport fugitive dust materials. These points include, but are not limited to, transfer of material from one conveyor belt to another and transfer of material to a hopper or bin.

(6) Other site-specific sources of fugitive dust emissions that the Administrator or delegated permitting authority designate to be included in your fugitive dust control plan.

(c) Your fugitive dust control plan must describe the control measures you use to control fugitive dust emissions from each source addressed in the plan, as applicable and appropriate for your site conditions. Examples of control measures include, but are not limited to, locating the source inside a building or other enclosure, installing and operating a local hood capture system over the source and venting the captured gas stream to a control device, placing material stockpiles below grade, installing wind screens or wind fences around the source, spraying water on the source as weather conditions require, applying appropriate dust suppression agents on the source, or combinations of these control measures.

(d) The requirement for you to operate according to a written fugitive dust control plan must be incorporated in your operating permit that is issued by the designated permitting authority under part 70 of this chapter. A copy of your fugitive dust control plan must be sent to the designated permitting authority on or before the compliance date for your primary copper smelter, as specified in § 63.1443.

§ 63.1446 What alternative emission limitation may I meet for my combined gas streams?

(a) For situations where you combine gas streams from two or more affected sources for discharge to the atmosphere through a single vent, you may choose to meet the requirements in paragraph (b) of this section as an alternative to complying with the individual total particulate matter emission limits specified in § 63.1444 that apply to you. This alternative emission limit for a combined gas stream may be used for any combination of the affected source gas steams specified in paragraphs (a)(1) through (5) of this section.

(1) Gas stream discharged from a copper concentrate dryer vent that would otherwise be subject to § 63.1444(a)(1) or (2);

(2) Gas stream discharged from a smelting furnace capture system that would otherwise be subject to § 63.1444(b)(2)(ii);

(3) Process off-gas stream discharged from a slag cleaning vessel that would otherwise be subject to § 63.1444(c)(2);

(4) Gas stream discharged from a slag cleaning vessel capture system that would otherwise be subject to § 63.1444(c)(3)(ii); and

(5) Gas stream discharged from a batch copper converter secondary capture system that would otherwise be subject to § 63.1444(d)(5).

(b) You must meet the requirements specified in paragraphs (b)(1) and (2) of this section for the combined gas stream discharged through a single vent.

(1) For each combined gas stream discharged through a single vent, you must not cause to be discharged to the atmosphere any gases that contain total particulate matter in excess of the emission limit calculated using the procedure in paragraph (b)(2) of this section and measured using the test methods specified in § 63.1450(a).

(2) You must calculate the alternative total particulate matter emission limit for your combined gas stream using Equation 1 of this section. The volumetric flow rate value for each of the individual affected source gas streams that you use for Equation 1 (i.e., the flow rate of the gas stream discharged from the affected source but before this gas stream is combined with the other gas streams) is to be the average of the volumetric flow rates measured using the test method specified in § 63.1450(a)(1)(ii):

$$E_{Alt} = \frac{E_d Q_d + E_{sv} Q_{sv} + E_{scvp} Q_{scvp} + E_{scvf} Q_{scvf} + E_{cc} Q_{cc}}{Q_d + Q_{sv} + Q_{scvp} + Q_{scvf} + Q_{cc}} \qquad \text{(Eq. 1)}$$

Where

E_{Alt} = Alternative total particulate matter emission limit for the combined gas stream discharged to atmosphere through a single vent (mg/dscm);

E_d = Total particulate matter emission limit applicable to copper concentrate dryer as specified in § 63.1444(a)(1) or (2) (mg/dscm);

Q_d = Copper concentrate dryer exhaust gas stream volumetric flow rate before being combined with other gas streams (dscm);

E_{sv} = Total particulate matter emission limit for smelting furnace capture system as specified in § 63.1444(b)(2)(ii) (mg/dscm);

Q_{sv} = Smelting furnace capture system exhaust gas stream volumetric flow rate before being combined with other gas streams (dscm);

E_{scvp} = Total particulate matter emission limit for slag cleaning vessel process off-gas as specified in § 63.1444(c)(2) (mg/dscm);

Q_{scvp} = Slag cleaning vessel process off-gas volumetric flow rate before being combined with other gas streams (dscm);

E_{scvf} = Total particulate matter emission limit for slag cleaning vessel capture system as specified in § 63.1444(c)(3)(ii) (mg/dscm);

Q_{scvf} = Slag cleaning vessel capture system exhaust gas stream volumetric flow rate before being combined with other gas streams (dscm);

E_{cc} = Total particulate emission limit for the batch copper converter secondary capture system as specified in § 63.1544(d)(5) (mg/dscm); and

Q_{cc} = Batch copper converter capture system exhaust gas stream volumetric flow rate before being combined with other gas streams (dscm).

(c) For each baghouse applied to meet any total particulate matter emission limit in paragraph (b) of this section, you must operate the baghouse such that the bag leak detection system does not alarm for more than 5 percent of the total operating time in any semiannual reporting period.

(d) For each venturi wet scrubber applied to meet any total particulate matter emission limit in paragraph (b) of this section, you must maintain the hourly average pressure drop and scrubber water flow rate at or above the minimum levels established during the initial or subsequent performance test.

(e) For each control device other than a baghouse or venturi wet scrubber applied to meet any total particulate matter emission limit in paragraph (b) of this section, you must operate the control device as specified in paragraphs (e)(1) and (2) of this section.

(1) You must select one or more operating parameters, as appropriate for the control device design, that can be used as representative and reliable indicators of the control device operation.

(2) You must maintain the hourly average value for each of the selected parameters at or above the minimum level or at or below the maximum level, as appropriate for the selected parameter, established during the initial or subsequent performance test.

Operation and Maintenance Requirements

§ 63.1447 What are my operation and maintenance requirements?

(a) As required by § 63.6(e)(1)(i), you must always operate and maintain your affected source, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by this subpart.

(b) You must prepare and operate at all times according to a written operation and maintenance plan for each capture system and control device subject to standards in § 63.1444 or § 63.1446. The plan must address the requirements in paragraphs (b)(1) through (3) of this section as applicable to the capture system or control device.

(1) *Preventative maintenance.* You must perform preventative maintenance for each capture system and control device according to written procedures specified in your operation and maintenance plan. The procedures must include a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

(2) *Capture system inspections.* You must conduct monthly inspections of the equipment components of the capture system that can affect the performance of the system to collect the gases and fumes emitted from the affected source (e.g., hoods, exposed ductwork, dampers, fans) according to written procedures specified in your operation and maintenance plan. The inspection procedure must include the requirements in paragraphs (b)(2)(i) through (iii) of this section as applicable to the capture system or control device.

(i) Observations of the physical appearance of the equipment to confirm the physical integrity of the equipment (e.g., verify by visual inspection no holes in ductwork or hoods, no flow constrictions caused by dents, or accumulated dust in ductwork).

(ii) Inspection, and if necessary testing, of equipment components to confirm that the component is operating as intended (e.g., verify by appropriate measures that flow or pressure sensors, damper plates, automated damper switches and motors are operating according to manufacture or engineering design specifications).

(iii) In the event that a defective or damaged component is detected during an inspection, you must initiate corrective action according to written procedures specified in your operation and maintenance plan to correct the defect or deficiency as soon as practicable.

(3) *Copper converter department capture system operating limits.* You must establish, according to the requirements in paragraph (b)(3)(i) through (iii) of this section, operating limits for the capture system that are representative and reliable indicators of the performance of capture system when it is used to collect the process off-gas vented from batch copper converters during blowing.

(i) Select operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system when it is used to collect the process off-gas vented from batch copper converters during blowing. At a minimum, you must use appropriate operating limit parameters that indicate the level of the ventilation draft and the damper position settings for the capture system when operating to collect the process off-gas from the batch copper converters during blowing. Appropriate operating limit parameters for ventilation draft include, but are not limited to, volumetric flow rate through each separately ducted hood, total volumetric flow rate at the inlet to control device to which the capture system is vented, fan motor amperage, or static pressure. Any parameter for damper position setting may be used that indicates the duct damper position relative to the fully open setting.

(ii) For each operating limit parameter selected in paragraph (b)(3)(i) of this section, designate the value or setting for the parameter at which the capture system operates during batch copper converter blowing. If your blister copper production operations allow for more than one batch copper converter to be operating simultaneously in the blowing mode, designate the value or setting for the parameter at which the capture system operates during each possible batch copper converter blowing configuration that you may operate at your smelter (i.e., the operating limits with one converter blowing, with two converters blowing, with three converters blowing, as applicable to your smelter).

(iii) Include documentation in the plan to support your selection of the operating limits established for the capture system. This documentation must include a description of the capture system design, a description of the capture system operation during blister copper production, a description of each selected operating limit parameter, a rationale for why you chose the parameter, a description of the method used to monitor the parameter according to the requirements in § 63.1452(a), and the data used to set the value or setting for the parameter for each of your batch copper converter configurations.

(4) *Baghouse leak detection corrective actions.* In the event a bag leak detection system alarm is triggered, you must initiate corrective action according to written procedures specified in your operation and maintenance plan to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon as practicable. Corrective actions may include, but are not limited to, the activities listed in paragraphs (b)(3)(i) through (vi) of this section.

(i) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in 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 repair the bag leak detection system.

(vi) Shutting down the process producing the particulate emissions.

General Compliance Requirements

63.1448 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations, work practice standards, and operation and maintenance requirements in this subpart at all times, except during periods of startup, shutdown, and malfunction as defined in § 63.2.

(b) During the period between the compliance date specified for your affected source in § 63.1443, and the date upon which continuous monitoring systems have been installed and certified and any applicable operating limits have been set, you must maintain a log detailing the operation and maintenance of the process and emissions control equipment.

(c) You must develop and implement a written startup, shutdown, and malfunction plan according to the provisions in § 63.6(e)(3).

Initial Compliance Requirements

§ 63.1449 By what dates must I conduct performance tests or other initial compliance demonstrations?

(a) As required in § 63.7(a)(2), you must conduct a performance test within

180 calendar days of the compliance date that is specified in § 63.1443 for your affected source to demonstrate initial compliance with each emission and opacity limit in § 63.1443 and § 63.1446 that applies to you.

(b) For each work practice standard and operation and maintenance requirement that applies to you where initial compliance is not demonstrated using a performance test or opacity observation, you must demonstrate initial compliance within 30 calendar days after the compliance date that is specified for your affected source in § 63.1443.

§ 63.1450 What test methods and other procedures must I use to demonstrate initial compliance with the emission limitations?

(a) *Total particulate matter emission limits.* You must conduct each performance test to determine compliance with the total particulate matter emission limits in § 63.1444 or § 63.1446 that apply to you according to the requirements for representative test conditions specified in § 63.7(e)(1) and using the test methods and procedures in paragraphs (a)(1) through (5) of this section.

(1) Determine the concentration of total particulate matter according to the test methods in appendix A to part 60 of this chapter as specified in paragraphs (a)(1)(i) through (iii) of this section.

(i) Method 1 to select sampling port locations and the number of traverse points. Sampling ports must be located at the outlet of the control device and prior to any releases to the atmosphere.

(ii) Method 2, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 5, 5D, or 17, as applicable, to determine the concentration of total particulate matter. You can also use ASTM D4536–96 incorporated by reference in § 63.14 as an alternative to the sampling equipment and operating procedures in Method 5 or 17 when testing a positive pressure baghouse, but you must use the sample traverse location and number of sampling points described in Method 5D.

(2) As an alternative to using the applicable method specified in paragraph (a)(1)(v) of this section, you may determine total particulate matter emissions from the control device using Method 29 in appendix A of part 60 of this chapter provided that you follow the procedures and precautions prescribed in Method 29. If the control device is a positive pressure baghouse, you must also follow the measurement procedure specified in sections 4.1 through 4.3 of Method 5D.

(3) You must conduct three separate test runs for each performance test. Each test run must have a minimum sampling time of 60 minutes and a minimum sampling volume of 0.85 dscm. For the purpose of determining compliance with the applicable total particulate matter emission limit, the arithmetic mean of the results for the three separate test runs is used.

(4) For a venturi wet scrubber applied to emissions from an affected source and subject to operating limits in § 63.1444(g) or § 63.1446(d) for pressure drop and scrubber water flow rate, you must establish site-specific operating limits according to the procedures in paragraph (a)(4)(i) and (ii) of this section.

(i) Using the continuous parameter monitoring system (CPMS) required in § 63.1452, measure and record the pressure drop and scrubber water flow rate during each run of the particulate matter performance test.

(ii) Compute and record the hourly average pressure drop and scrubber water flow rate for each individual test run. Your operating limits are the lowest average pressure drop and scrubber water flow rate value in any of the three runs that meet the applicable emission limit.

(5) For a control device other than a baghouse or venturi wet scrubber applied to emissions from an affected source and subject to site-specific operating limit(s) in § 63.1444(h) or § 63.1446(e) for appropriate, site-specific operating parameters that are representative and reliable indicators of the control device performance, you must establish a site-specific operating limit(s) according to the procedures in paragraph (a)(5)(i) through (iv) of this section.

(i) Select one or more operating parameters, as appropriate for the control device design, that can be used as representative and reliable indicators of the control device operation.

(ii) Using the CPMS required in § 63.1452, measure and record the selected operating parameters for the control device during each run of the total particulate matter performance test.

(iii) Compute and record the hourly average value for each of the selected operating parameters for each individual test run. Your operating limits are the lowest value or the highest value, as appropriate for the selected operating parameter, measured in any of the three runs that meet the applicable emission limit.

(iv) You must prepare written documentation to support your selection of the operating parameters used for the control device. This documentation must include a description of each selected parameter, a rationale for why you chose the parameter, a description of the method used to monitor the parameter, and the data recorded during the performance test and used to set the operating limit(s).

(b) *Nonsulfuric acid particulate matter emission limits.* You must conduct each performance test to determine compliance with the nonsulfuric acid particulate matter emission limits in § 63.1444 that apply to you according to the requirements for representative test conditions specified in § 63.7(e)(1) and using the test methods and procedures in paragraphs (b)(1) and (2) of this section.

(1) Determine the concentration of nonsulfuric acid particulate matter according to the test methods in appendix A to part 60 of this chapter as specified in paragraphs (b)(1)(i) through (v) of this section.

(i) Method 1 to select sampling port locations and the number of traverse points. Sampling ports must be located at the outlet of the control device and prior to any releases to the atmosphere.

(ii) Method 2, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 5B to determine the nonsulfuric acid particulate matter emissions.

(2) You must conduct three separate test runs for each performance test. Each test run must have a minimum sampling time of 240 minutes and a minimum sampling volume of 3.4 dscm. For the purpose of determining compliance with the nonsulfuric acid particulate matter emission limit, the arithmetic mean of the results for the three separate test runs is used.

(c) *Copper converter department capture system opacity limit.* You must conduct each performance test to determine compliance with the opacity limit in § 63.1444 using the test methods and procedures in paragraphs (c)(1) through (9) of this section.

(1) You must conduct the performance test during the period when the primary copper smelter is operating under conditions representative of the smelter's normal blister copper production rate. You may

not conduct a performance test during periods of startup, shutdown, or malfunction. Before conducting the performance test, you must prepare a written test plan specifying the copper production conditions to be maintained throughout the opacity observation period and including a copy of the written documentation you have prepared according to paragraph (a)(3) of this section to support the established operating limits for the copper converter department capture system. You must submit a copy of the test plan for review and approval by the Administrator or delegated authority. During the observation period, you must collect appropriate process information and copper converter department capture system operating information to prepare documentation sufficient to verify that all opacity observations were made during the copper production and capture system operating conditions specified in the approved test plan.

(2) You must notify the Administrator or delegated authority before conducting the opacity observations to allow the Administrator or delegated authority the opportunity to have authorized representatives attend the test. Written notification of the location and scheduled date for conducting the opacity observations must be received by the Administrator on or before 30 calendar days before this scheduled date.

(3) You must gather the data needed for determining compliance with the opacity limit using qualified visible emission observers and process monitors as described in paragraphs (c)(3)(i) and (ii) of this section.

(i) Opacity observations must be performed by a sufficient number of qualified visible emission observers to obtain two complete concurrent sets of opacity readings for the required observation period. Each visible emission observer must be certified as a qualified observer by the procedure specified in section 3 of Method 9 in appendix A of part 60 of this chapter. The entire set of readings during the required observation period does not need to be made by the same two observers. More than two observers may be used to allow for substitutions and provide for observer rest breaks. The owner or operator must obtain proof of current visible emission reading certification for each observer.

(ii) A person (or persons) familiar with the copper production operations conducted at the smelter must serve as the indoor process monitor. The indoor process monitor is stationed at a location inside the building housing the batch copper converters such that he or she can visually observe and record operations that occur in the batch copper converter aisle during the times that the visible emission observers are making opacity readings. More than one indoor process monitor may be used to allow for substitutions and provide for rest breaks.

(4) You must make all opacity observations using Method 9 in appendix A to part 60 of this chapter and following the procedures described in paragraphs (c)(4)(i) and (ii) of this section.

(i) Each visible emission observer must make his or her readings at a position from the outside of the building that houses the copper converter department such that the observer's line-of-sight is approximately perpendicular to the longer axis of the converter building, and the observer has an unobstructed view of the building roof monitor sections or roof exhaust fan outlets that are positioned over each of the batch copper converters inside the building. Opacity readings can only be made during those times when the observer's position meets the sun orientation and other conditions specified in section 2.1 of Method 9.

(ii) At 15-second intervals, each visible emission observer views the building roof monitor sections or roof exhaust fan outlets that are positioned over each of the batch copper converters inside the building and reads the opacity of the visible plumes. If no plume is visible, the observer records zero as the opacity value for the 15-second interval. In situations when it is possible for an observer to distinguish two or more visible emission plumes from the building roof monitor sections or roof exhaust fan outlets, the observer must identify, to the extent feasible, the plume having the highest opacity and record his or her opacity reading for that plume as the opacity value for the 15-second interval.

(5) You must make opacity observations for a period of sufficient duration to obtain a minimum of 120 1-minute intervals during which at least one copper converter is blowing and no interferences have occurred from other copper production events, as specified in paragraph (c)(7) of this section, which generate visible emissions inside the building that potentially can interfere with the visible emissions from the converter capture systems as seen by the outside observers. To obtain the required number of 1-minute intervals, the observation period may be divided into two or more segments performed on the same day or on different days if conditions prevent the required number of opacity readings from being obtained during one continuous time period. Examples of these conditions include, but are not limited to, changes in the sun's orientation relative to visible emission observers' positions such that the Method 9 conditions are no longer met or an unexpected thunder storm. If the total observation period is divided into two or more segments, all opacity observations must be made during the same set of copper production conditions described in your approved test plan as required by paragraph (c)(1) of this section.

(6) You must gather indoor process information during all times that the visible emission observers are making opacity readings outside the building housing the copper converter department. The indoor process monitor must continually observe the operations occurring in the copper converter department and prepare a written record of his or her observations using the procedure specified in paragraphs (c)(6)(i) through (iv) of this section.

(i) At the beginning of each observation period or segment, the clock time setting on the watch or clock to be used by the indoor process monitor must be synchronized with the clock time settings for the timepieces to be used by the outdoor opacity observers.

(ii) During each period or segment when opacity readings are being made by the visible emission observers, the indoor process monitor must continuously observe the operations occurring in the copper converter department and record his or her observations in a log book, on data sheets, or other type of permanent written format.

(iii) When a batch copper converter is blowing, a record must be prepared for the converter that includes, but is not limited to, the clock times for when blowing begins and when blowing ends and the converter blowing rate. This information may be recorded by the indoor process monitor or by a separate, automated computer data system.

(iv) The process monitor must record each event other than converter blowing that occurs in or nearby the converter aisle that he or she observes to generate visible emissions inside the building. The recorded entry for each event must include, but is not limited to, a description of the event and the clock times when the event begins and when the event ends.

(7) You must prepare a summary of the data for the entire observation period using the information recorded during the observation period by the outdoor visible emission observers and the indoor process monitor and the

procedure specified in paragraphs (c)(7)(i) through (iv) of this section.

(i) Using the field data sheets, identify the 1-minute clock times for which a total of eight opacity readings were made and recorded by both observers at 15-second intervals according to the test procedures (i.e., a total of four opacity values have been recorded for the 1-minute interval by each of the two observers). Calculate the average of the eight 15-second interval readings recorded on the field data sheets by the two observers during the clock time minute interval (add the four consecutive 15-second interval opacity readings made by Observer A during the specified clock time minute, plus the four consecutive 15-second interval opacity readings made by Observer B during the same clock time minute, and divide the resulting total by eight). Record the clock time and the opacity average for the 1-minute interval on a data summary sheet. Figure 1 of this subpart shows an example of the format for the data summary sheet you may use, but are not required to use.

(ii) Using the data summary sheets prepared according to paragraph (c)(7)(i) of this section and the process information recorded according to paragraph (c)(6)(iii) of this section, identify those 1-minute intervals for which at least one of the batch copper converters was blowing.

(iii) Using the data summary sheets prepared according to paragraph (c)(7)(ii) of this section and the process information recorded according to paragraph (c)(6)(iv) of this section, identify the 1-minute intervals during which at least one copper converter was blowing but none of the interference events listed in paragraphs (c)(7)(iii)(A) through (F) of this section occurred. Other ancillary activities not listed but conducted in or adjacent to the converter aisle during the opacity observations are not considered to be interference events (e.g., converter aisle cleaning, placement of smoking ladles or skulls on the converter aisle floor).

(A) Charging of copper matte, reverts, or other materials to a batch copper converter;

(B) Skimming slag or other molten materials from a batch copper converter;

(C) Pouring of blister copper or other molten materials from a batch copper converter;

(D) Return of slag or other molten materials to the flash smelting furnace or slag cleaning vessel;

(E) Roll-out or roll-in of the batch copper converter; or

(F) Smoke and fumes generated inside the converter building by operation of the smelting furnace, the slag cleaning vessel (if used), anode refining and casting processes that drift into the copper converter department.

(iv) Using the data summary sheets prepared according to paragraph (c)(7)(iii) of this section, up to five 1-minute intervals following an interference event may be eliminated from data used for the compliance determination calculation specified in paragraph (c)(8) of this section by applying a time delay factor. The time delay factor must be a constant number of minutes not to exceed 5 minutes that is added to the clock time recorded when cessation of the interference event occurs. The same time delay factor must be used for all interference events (i.e., a constant time delay factor for the smelter of 1 minute, 2 minutes, 3 minutes, 4 minutes, or 5 minutes). The number of minutes to be used for the time delay factor is determined based on the site-specific equipment and converter building configuration. An explanation of the rationale for selecting the value used for the time delay factor must be prepared and included in the test report.

(8) You must use the data summary prepared in paragraph (c)(7) of this section to calculate the average opacity value for a minimum of 120 1-minute intervals during which at least one copper converter was blowing with no interference events as determined according to paragraphs (c)(7)(iii) and (iv) of this section. Average opacity is calculated using Equation 1 of this section:

$$VE_{ave} = \frac{1}{n}\sum_{i=1}^{n} VE_i \qquad (\text{Eq. } 1)$$

Where

VE_{ave} = Average opacity to be used for compliance determination (percent);

n = Total number of 1-minute intervals during which at least one copper converter was blowing with no interference events as determined according to paragraphs (c)(7)(iii) and (iv) of this section (at least 120 1-minute intervals);

i = 1-minute interval ''i'' during which at least one copper converter was blowing with no interference events as determined according to paragraphs (c)(7)(iii) and (iv) of this section; and

VE_i = Average opacity value calculated for the eight opacity readings recorded during 1-minute interval ''i'' (percent).

(9) You must certify that the copper converter department capture system operated during the performance test at the operating limits established in your capture system operation and maintenance plan using the procedure specified in paragraphs (c)(9)(i) through (iv) of this section.

(i) Concurrent with all opacity observations, measure and record values for each of the operating limit parameters in your capture system operation and maintenance plan according to the monitoring requirements specified in § 63.1452(a).

(ii) For any dampers that are manually set and remain in the same position at all times the capture system is operating, the damper position must be visually checked and recorded at the beginning and end of each opacity observation period segment.

(iii) Review the recorded monitoring data. Identify and explain any times during batch copper converter blowing when the capture system operated outside the applicable operating limits.

(iv) Certify in your performance test report that during all observation period segments, the copper converter department capture system was operating at the values or settings established in your capture system operation and maintenance plan.

§ 63.1451 How do I demonstrate initial compliance with the emission limitations, work practice standards, and operation and maintenance requirements that apply to me?

(a) *Total particulate matter emission limits.* For each copper concentrate dryer, smelting furnace, slag cleaning vessel, and copper converter department subject to a total particulate matter emission limits in § 63.1444 or § 63.1446 that applies to you, you have demonstrated initial compliance if you meet both of the conditions in paragraphs (a)(1) and (2) of this section.

(1) The average concentration of total particulate matter from a control device applied to emissions from the affected source, measured according to the performance test procedures in § 63.1450(a), did not exceed the applicable emission limit.

(2) You have submitted a notification of compliance status according to the requirements in § 63.1454(e).

(b) *Nonsulfuric acid particulate matter emissions limits.* For each smelting furnace, slag cleaning vessel, and copper converter departments subject to the nonsulfuric acid particulate matter emissions limit in § 63.1444 as applies to you, you have demonstrated initial compliance if you meet both of the conditions in paragraphs (b)(1) and (2) of this section.

(1) The average concentration of nonsulfuric acid particulate matter in the process off-gas discharged from the

affected source, measured according to the performance test procedures in § 63.1450(b), did not exceed 6.2 mg/dscm.

(2) You have submitted a notification of compliance status according to the requirements in § 63.1454(e).

(c) For each existing copper converter department subject to the opacity limit in § 63.1444, you have demonstrated initial compliance if you meet both of the conditions in paragraphs (c)(1) and (2) of this section.

(1) The opacity of visible emissions exiting the roof monitors or roof exhaust fans on the building housing the copper converter department measured according to the performance test procedures in § 63.1450(c), did not exceed 4 percent opacity.

(2) You have submitted a notification of compliance status according to the requirements in § 63.1454(e).

(d) *Copper converter department capture systems.* You have demonstrated initial compliance of the copper converter department capture system if you meet all of the conditions in paragraphs (d)(1) through (4) of this section.

(1) Prepared the capture system operation and maintenance plan according to the requirements of paragraph (a) of this section;

(2) Conducted an initial performance test according to the procedures of § 63.1450(c) demonstrating the opacity of any visible emissions exiting the roof monitors or roof exhaust fans on the building housing the copper converter department does not exceed 4 percent opacity;

(3) Included in your notification of compliance status a copy of your written capture system operation and maintenance plan and have certified in your notification of compliance status that you will operate the copper converter department capture system at all times during blowing at the values or settings established for the operating limits in that plan; and

(4) Submitted a notification of compliance status according to the requirements in § 63.1454(e).

(e) *Baghouses.* For each baghouse subject to operating limits in § 63.1444(f) or § 63.1446(c), you have demonstrated initial compliance if you meet all of the conditions in paragraphs (e)(1) through (3) of this section.

(1) You have included in your written operation and maintenance plan required under § 63.1447(b) detailed descriptions of the procedures you use for inspection, maintenance, bag leak detection, and corrective action for the baghouse.

(2) You have certified in your notification of compliance status that you will operate the baghouse according to your written operation and maintenance plan.

(3) You have submitted the notification of compliance status according to the requirements in § 63.1454(e).

(f) *Venturi wet scrubbers.* For each venturi wet scrubber subject to operating limits in § 63.1444(g) or § 63.1446(d), you have demonstrated initial compliance if you meet all of the conditions in paragraphs (f)(1) through (3) of this section.

(1) Established site-specific operating limits for pressure drop and scrubber water flow rate and have a record of the pressure drop and scrubber water flow rate measured during the performance test you conduct to demonstrate initial compliance with paragraph (a) of this section.

(2) Certified in your notification of compliance status that you will operate the venturi wet scrubber within the established operating limits for pressure drop and scrubber water flow rate.

(3) Submitted a notification of compliance status according to the requirements in § 63.1454(e).

(g) *Other control devices.* For each control device other than a baghouse or venturi wet scrubber subject to operating limits in § 63.1444(h) or § 63.1446(e), you have demonstrated initial compliance if you meet all of the conditions in paragraphs (g)(1) through (4) of this section.

(1) Selected one or more operating parameters, as appropriate for the control device design, that can be used as representative and reliable indicators of the control device operation.

(2) Established site-specific operating limits for each of the selected operating parameters based on values measured during the performance test you conduct to demonstrate initial compliance with paragraph (a) of this section and have prepared written documentation according to the requirements in § 63.1450(a)(5)(iv).

(3) Included in your notification of compliance status a copy of the written documentation you have prepared to demonstrate compliance with paragraph (g)(2) of this section and have certified in your notification of compliance status that you will operate the control device within the established operating limits.

(4) Submitted a notification of compliance status according to the requirements in § 63.1454(e).

(h) *Fugitive dust sources.* For all fugitive dust sources subject to work practice standards in § 63.1445, you have demonstrated initial compliance if you meet all of the conditions in paragraphs (i)(1) through (3) of this section.

(1) Prepared a written fugitive dust control plan according to the requirements in § 63.1454 and it has been approved by the designated authority.

(2) Certified in your notification of compliance status that you will control emissions from the fugitive dust sources according to the procedures in the approved plan.

(3) Submitted the notification of compliance status according to the requirements in § 63.1454(e).

(i) *Operation and maintenance requirements.* You have demonstrated initial compliance with the operation and maintenance requirements that apply to you if you meet all of the conditions in paragraphs (i)(1) through (3) of this section.

(1) Prepared an operation and maintenance plan according to the requirements in § 63.1454(b).

(2) Certified in your notification of compliance status that you will operate each capture system and control device according to the procedures in the plan.

(3) Submitted the notification of compliance status according to the requirements in § 63.1454(e).

Continuous Compliance Requirements

§ 63.1452 What are my monitoring requirements?

(a) *Copper converter department capture systems.* For each operating limit established under your capture system operation and maintenance plan, you must install, operate, and maintain an appropriate monitoring device according the requirements in paragraphs (a)(1) though (6) of this section to measure and record the operating limit value or setting at all times the copper converter department capture system is operating during batch copper converter blowing. Dampers that are manually set and remain in the same position at all times the capture system is operating are exempted from the requirements of this paragraph (a).

(1) Install the monitoring device, associated sensor(s), and recording equipment according to the manufacturers' specifications. Locate the sensor(s) used for monitoring in or as close to a position that provides a representative measurement of the parameter being monitored.

(2) If a flow measurement device is used to monitor the operating limit parameter, you must meet the requirements in paragraph (a)(2)(i) through (iv) of this section.

(i) Locate the flow sensor and other necessary equipment such as straightening vanes in a position that provides a representative flow.

(ii) Use a flow sensor with a minimum tolerance of 2 percent of the flow rate.

(iii) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(iv) Conduct a flow sensor calibration check at least semiannually.

(3) If a pressure measurement device is used to monitor the operating limit parameter, you must meet the requirements in paragraph (a)(3)(i) through (v) of this section.

(i) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure.

(ii) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(iii) Use a gauge with a minimum tolerance of 0.5 inch of water or a transducer with a minimum tolerance of 1 percent of the pressure range.

(iv) Check pressure tap pluggage daily.

(v) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(4) Conduct calibration and validation checks any time the sensor exceeds the manufacturer's specifications or you install a new sensor.

(5) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

(6) Record the results of each inspection, calibration, and validation check.

(b) *Baghouses.* For each baghouse subject to the operating limit in § 63.1444(f) or § 63.1446(c) for the bag leak detection system alarm, you must at all times monitor the relative change in particulate matter loadings using a bag leak detection system according to the requirements in paragraph (b)(1) of this section and conduct regular inspections according to the requirements in paragraph (b)(2) of this section.

(1) You must install, operate, and maintain each bag leak detection system according to the requirements in paragraphs (b)(1)(i) through (vii) of this section.

(i) The system must be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

(ii) The system must provide output of relative changes in particulate matter loadings.

(iii) The system must be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over a preset level. The alarm must be located such that it can be heard by the appropriate plant personnel.

(iv) Each system that works based on the triboelectric effect must be installed, operated, and maintained in a manner consistent with the guidance document, ''Fabric Filter Bag Leak Detection Guidance,'' EPA–454/R–98–015, September 1997. You may obtain a copy of this guidance document by contacting the National Technical Information Service (NTIS) at 800–553–6847. You may install, operate, and maintain other types of bag leak detection systems in a manner consistent with the manufacturer's written specifications and recommendations.

(v) To make the initial adjustment of the system, establish the baseline output by adjusting the sensitivity (range) and the averaging period of the device. Then, establish the alarm set points and the alarm delay time.

(vi) Following the initial adjustment, do not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time, except as detailed in your operation and maintenance plan. Do not increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365-day period unless a responsible official certifies, in writing, that the baghouse has been inspected and found to be in good operating condition.

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

(2) You must conduct baghouse inspections at their specified frequencies according to the requirements in paragraphs (b)(2)(i) through (viii) of this section.

(i) Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.

(ii) Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.

(iii) Check the compressed air supply for pulse-jet baghouses each day.

(iv) Monitor cleaning cycles to ensure proper operation using an appropriate methodology.

(v) Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.

(vi) Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or laying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.

(vii) Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.

(viii) Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.

(c) *Venturi wet scrubbers.* For each venturi wet scrubber subject to the operating limits for pressure drop and scrubber water flow rate in § 63.1444(g) or § 63.1446(d), you must at all times monitor the hourly average pressure drop and water flow rate using a CPMS. You must install, operate, and maintain each CPMS according to the requirements in paragraphs (c)(1) and (2) of this section.

(1) For the pressure drop CPMS, you must meet the requirements in paragraphs (c)(1)(i) through (vi) of this section.

(i) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure and that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion.

(ii) Use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range.

(iii) Check the pressure tap for pluggage daily.

(iv) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(v) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range, or install a new pressure sensor.

(vi) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

(2) For the scrubber water flow rate CPMS, you must meet the requirements in paragraphs (c)(2)(i) through (iv) of this section.

(i) Locate the flow sensor and other necessary equipment in a position that provides a representative flow and that reduces swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(ii) Use a flow sensor with a minimum measurement sensitivity of 2 percent of the flow rate.

(iii) Conduct a flow sensor calibration check at least semiannually according to the manufacturer's instructions.

(iv) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

(d) *Other control devices.* For each control device other than a baghouse or venturi wet scrubber subject to the operating limits for appropriate parameters in § 63.1444(h) or § 63.1446(e), you must at all times monitor the hourly average pressure drop and water flow rate using a CPMS. You must install, operate, and maintain each CPMS according to the equipment manufacturer's specifications and the requirements in paragraphs (d)(1) though (5) of this section.

(1) Locate the sensor(s) used for monitoring in or as close to a position that provides a representative measurement of the parameter being monitored.

(2) Determine the hourly average of all recorded readings.

(3) Conduct calibration and validation checks any time the sensor exceeds the manufacturer's specifications or you install a new sensor.

(4) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

(5) Record the results of each inspection, calibration, and validation check.

(e) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) at all times an affected source is operating.

(f) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels or to fulfill a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing compliance.

(g) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitor to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

§ 63.1453 How do I demonstrate continuous compliance with the emission limitations, work practice standards, and operation and maintenance requirements that apply to me?

(a) *Particulate matter emission limits.* For each affected source subject to a particulate matter emission limit § 63.1444 or § 63.1446 as applies to you, you must demonstrate continuous compliance according to the requirements in paragraphs (a)(1) and (2) of this section.

(1) For each copper concentrate dryer, smelting furnace, slag cleaning vessel, and copper converter department subject to a total particulate matter emission limit in § 63.1444 or § 63.1446 as applies to you, you must demonstrate continuous compliance by meeting the conditions in paragraphs (a)(1)(i) and (ii) of this section.

(i) Maintain the average concentration of total particulate matter in the gases discharged from the affected source at or below the applicable emission limit.

(ii) Conduct subsequent performance tests following your initial performance test no less frequently than once per year according to the performance test procedures in § 63.1450(a).

(2) For each smelting furnace, slag cleaning vessel, and copper converter department subject to the nonsulfuric acid particulate matter emission limit in § 63.1444 as applies to you, you must demonstrate continuous compliance by meeting the conditions in paragraphs (a)(2)(i) and (ii) of this section.

(i) Maintain the average concentration of nonsulfuric acid particulate matter in the process off-gas discharged from the affected source at or below 6.2 mg/dscm.

(ii) Conduct subsequent performance tests following your initial performance test no less frequently than once per year according to the performance test procedures in § 63.1450(b).

(b) *Copper converter department capture systems.* You must demonstrate continuous compliance of the copper converter department capture system by meeting the requirements in paragraphs (b)(1) through (4) of this section.

(1) Operate the copper converter department capture system at all times during blowing at or above the lowest values or settings established for the operating limits and demonstrated to achieve the opacity limit according to the applicable requirements of this subpart;

(2) Inspect and maintain the copper converter department capture system according to the applicable requirements in § 63.1447 and recording all information needed to document conformance with these requirements;

(3) Monitor the copper converter department capture system according to the requirements in § 63.1452(a) and collecting, reducing, and recording the monitoring data for each of the operating limit parameters according to the applicable requirements of this subpart; and

(4) Conduct subsequent performance tests according to the requirements of § 63.1450(c) following your initial performance test no less frequently than once per year to demonstrate that the opacity of any visible emissions exiting the roof monitors or roof exhaust fans on the building housing the copper converter department does not exceed 4 percent opacity.

(c) *Baghouses.* For each baghouse subject to the operating limit for the bag leak detection system alarm in § 63.1444(f) or § 63.1446(c), you must demonstrate continuous compliance by meeting the requirements in paragraphs (c)(1) through (3) of this section.

(1) Maintain the baghouse such that the bag leak detection system alarm does not sound for more than 5 percent of the operating time during any semiannual reporting period. To determine the percent of time the alarm sounded use the procedures in paragraphs (c)(1)(i) through (v) of this section.

(i) Alarms that occur due solely to a malfunction of the bag leak detection system are not included in the calculation.

(ii) Alarms that occur during startup, shutdown, or malfunction are not included in the calculation if the condition is described in the startup, shutdown, and malfunction plan, and all the actions you took during the startup, shutdown, or malfunction were consistent with the procedures in the startup, shutdown, and malfunction plan.

(iii) Count 1 hour of alarm time for each alarm when you initiated procedures to determine the cause of the alarm within 1 hour.

(iv) Count the actual amount of time you took to initiate procedures to determine the cause of the alarm if you did not initiate procedures to determine the cause of the alarm within 1 hour of the alarm.

(v) Calculate the percentage of time the alarm on the bag leak detection system sounds as the ratio of the sum of alarm times to the total operating time multiplied by 100.

(2) Maintain records of the times the bag leak detection system alarm sounded, and for each valid alarm, the time you initiated corrective action, the corrective action(s) taken, and the date on which corrective action was completed.

(3) Inspect and maintain each baghouse according to the requirements in § 63.1451(b)(2) and recording all information needed to document conformance with these requirements. If

you increase or decrease the sensitivity of the bag leak detection system beyond the limits specified in § 63.1451(b)(1)(vi), you must include a copy of the required written certification by a responsible official in the next semiannual compliance report.

(d) *Venturi wet scrubbers.* For each venturi wet scrubber subject to the operating limits for pressure drop and scrubber water flow rate in § 63.1444(g) or § 63.1446(d), you must demonstrate continuous compliance by meeting the requirements of paragraphs (d)(1) through (3) of this section.

(1) Maintain the hourly average pressure drop and scrubber water flow rate at levels no lower than those established during the initial or subsequent performance test;

(2) Inspect and maintain each venturi wet scrubber CPMS according to § 63.1452(c) and recording all information needed to document conformance with these requirements; and

(3) Collect and reduce monitoring data for pressure drop and scrubber water flow rate according to § 63.1452(e) and recording all information needed to document conformance with these requirements.

(e) *Other control devices.* For each control device other than a baghouse or venturi wet scrubber subject to the operating limits for site-specific operating parameters in § 63.1444(h) or § 63.1446(e), you must demonstrate continuous compliance by meeting the requirements of paragraphs (e)(1) through (3) of this section:

(1) Maintain the hourly average rate at levels no lower than those established during the initial or subsequent performance test;

(2) Inspect and maintain each venturi wet scrubber CPMS according to § 63.1452(d) and recording all information needed to document conformance with these requirements; and

(3) Collect and reduce monitoring data for selected parameters according to § 63.1452(e) and recording all information needed to document conformance with these requirements.

(f) *Fugitive dust sources.* For each fugitive dust source subject to work practice standards in § 63.1445, you must demonstrate continuous compliance by implementing all of fugitive control measures specified for the source in your written fugitive dust control plan.

Notifications, Reports and Records

§ 63.1454 What notifications must I submit and when?

(a) You must submit all of the notifications in §§ 63.6(h)(4) and (h)(5), 63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (h) that apply to you by the specified dates.

(b) As specified in § 63.9(b)(2), if you start your affected source before June 12, 2002, you must submit your initial notification not later than October 10, 2002.

(c) As specified in § 63.9(b)(3), if you start your new affected source on or after June 12, 2002, you must submit your initial notification not later than 120 calendar days after you become subject to this subpart.

(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required in § 63.7(b)(1).

(e) If you are required to conduct a performance test, opacity observation, or other initial compliance demonstration, you must submit a notification of compliance status according to § 63.9(h)(2)(ii) by the date specified in paragraph (e)(1) or (2) of this section as applies to you.

(1) For each initial compliance demonstration that does not include a performance test, you must submit the notification of compliance status before the close of business on the 30th calendar day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration that includes a performance test, you must submit the notification of compliance status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to § 63.10(d)(2).

§ 63.1455 What reports must I submit and when?

(a) You must submit each report in paragraphs (a)(1) and (2) of this section that applies to you.

(1) You must submit a compliance report semiannually according to the requirements in paragraph (b) of this section and containing the information in paragraph (c) of this section.

(2) You must submit an immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your startup, shutdown, and malfunction plan. You must report the actions taken for the event by fax or telephone within 2 working days after starting actions inconsistent with the plan. You must submit the information in § 63.10(d)(5)(ii) of this part by letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority.

(b) Unless the Administrator has approved a different schedule under § 63.10(a), you must submit each compliance report required in paragraph (a) of this section according to the applicable requirements in paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.1443 and ending on June 30 or December 31, whichever date comes first after the compliance date that is specified for your source in § 63.1443.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after your first compliance report is due.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A) of this chapter, you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) Each compliance report must contain the information in paragraphs (c)(1) through (3) of this section and, as applicable, paragraphs (c)(4) through (8) of this section.

(1) Company name and address.

(2) Statement by a responsible official, as defined in 40 CFR 63.2, with that official's name, title, and signature, certifying the accuracy and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a startup, shutdown or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in § 63.10(d)(5)(i).

(5) If there are no deviations from any emission limitations (emission limit, operating limit, opacity limit) that applies to you and there are no deviations from the requirements for work practice standards in this subpart, a statement that there were no deviations from the emission limitations, work practice standards, or operation and maintenance requirements during the reporting period.

(6) If there were no periods during which an operating parameter monitoring system was out-of-control as specified in § 63.8(c)(7), a statement that there were no periods during which the monitoring system was out-of-control during the reporting period.

(7) For each deviation from an emission limitation (emission limit, operating limit, opacity limit) and for each deviation from the requirements for work practice standards that occurs at an affected source where you are not using a continuous monitoring system to comply with the emission limitations or work practice standards in this subpart, the compliance report must contain the information in paragraphs (b)(1) through (4) of this section and the information in paragraphs (b)(7)(i) and (ii) of this section. This includes periods of startup, shutdown, and malfunction.

(i) The total operating time of each affected source during the reporting period.

(ii) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(8) For each deviation from an emission limitation (emission limit, operating limit, opacity limit, and visible emission limit) occurring at an affected source where you are using a operating parameter monitoring system to comply with the emission limitation in this subpart, you must include the information in paragraphs (b)(1) through (4) of this section and the information in paragraphs (c)(8)(i) through (xi) of this section. This includes periods of startup, shutdown, and malfunction.

(i) The date and time that each malfunction started and stopped.

(ii) The date and time that each monitoring system was inoperative, except for zero (low-level) and high-level checks.

(iii) The date, time and duration that each monitoring system was out-of-control, including the information in § 63.8(c)(8).

(iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(v) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(vi) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(vii) A summary of the total duration of monitoring system downtime during the reporting period and the total duration of monitoring system downtime as a percent of the total source operating time during that reporting period.

(viii) A brief description of the process units.

(ix) A brief description of the monitoring system.

(x) The date of the latest monitoring system certification or audit.

(xi) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.

(d) If you have obtained a Title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If you submit a compliance report pursuant to paragraph (a) of this section along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limitation(including any operating limit), or work practice requirement in this subpart, submission of the compliance report is deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements to the permit authority.

§ 63.1456 What records must I keep and how long must I keep my records?

(a) You must keep the records listed in paragraphs (a)(1) through (7) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or notification of compliance status that you submitted, according to the requirements in § 63.10(b)(2)(xiv).

(2) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests and performance evaluations as required in § 63.10(b)(2)(viii).

(4) For each monitoring system, you must keep the records specified in paragraphs (a)(4)(i) through (iv) of this section.

(i) Records described in § 63.10(b)(2)(vi) through (xi).

(ii) Monitoring data recorded by the monitoring system during a performance evaluation as required in § 63.6(h)(7)(i) and (ii).

(iii) Previous (i.e., superseded) versions of the performance evaluation plan as required in § 63.8(d)(3).

(iv) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(5) For each performance test you conduct to demonstrate compliance with a opacity limit according to § 63.1450(c), you must keep the records specified in paragraphs (a)(5)(i) through (ix) of this section.

(i) Dates and time intervals of all opacity observation period segments;

(ii) Description of overall smelter operating conditions during each observation period. Identify, if any, the smelter copper production process equipment that was out-of-service during the performance test and explain why this equipment was not in operation;

(iii) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test;

(iv) Name, title, and affiliation for each indoor process monitor participating in the performance test;

(v) Copies of all visible emission observer opacity field data sheets;

(vi) Copies of all indoor process monitor operating log sheets;

(vii) Copies of all data summary sheets used for data reduction;

(viii) Copy of calculation sheets of the average opacity value used to demonstrate compliance with the opacity limit; and

(ix) Documentation according to the requirements in § 63.1450(c)(9)(iv) to support your selection of the site-specific capture system operating limits used for each batch copper converter capture system when blowing.

(6) For each baghouse subject to the operating limit in § 63.1444(f) or § 63.1446(c), you must keep the records specified in paragraphs (a)(6)(i) and (ii) of this section.

(i) Records of alarms for each bag leak detection system.

(ii) Description of the corrective actions taken following each bag leak detection alarm.

(7) For each control device other than a baghouse or venturi wet scrubber subject to site-specific operating limits in § 63.1444(g) or § 63.1446(f), you must keep documentation according to the requirements in § 63.1450(a)(5)(iv) to support your selection of the site-specific operating limits for the control device.

(b) Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1).

(c) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(d) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records off site for the remaining 3 years.

Other Requirements and Information

§ 63.1457 What part of the general provisions apply to me?

Table 2 to this subpart shows which parts of the general provisions in §§ 63.1 through 63.15 apply to you.

§ 63.1458 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the United States Environmental Protection Agency (U.S. EPA), or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your 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 listed in paragraph (c) of this section are retained by the U.S. EPA Administrator and are not transferred to the State, local, or tribal agency.

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

(1) Approval of alternatives to the emission limitations and work practice standards in §§ 63.1444 through 63.1446 under § 63.6(g).

(2) Approval of major alternatives to test methods under § 63.7(f) and as defined in § 63.90.

(3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.1459 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, in § 63.2, and in this section as follows:

Bag leak detection system means a system that is capable of continuously monitoring relative particulate matter (dust) loadings in the exhaust of a baghouse in order to detect bag leaks and other upset conditions. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, transmittance or other effect to continuously monitor relative particulate matter loadings.

Baghouse means a control device that collects particulate matter by filtering the gas stream through bags. A baghouse is also referred to as a ‘‘fabric filter.’’

Batch copper converter means a Pierce-Smith converter or Hoboken converter in which copper matte is oxidized to form blister copper by a process that is performed in discrete batches using a sequence of charging, blowing, skimming, and pouring.

Blowing means the operating mode for a batch copper converter during which air or oxygen-enriched air is injected into the molten converter bath.

Capture system means the collection of components used to capture gases and fumes released from one or more emission points, and to convey the captured gases and fumes 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.

Charging means the operating mode for a batch copper converter during which molten or solid material is added into the vessel.

Control device means the air pollution control equipment used to collect particulate matter emissions. Examples of such equipment include, but are not limited to, a baghouse, an electrostatic precipitator, and a wet scrubber.

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 converter department means the area at a primary copper smelter in which the copper converters are located.

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 fails to meet any of the following:

(1) Any requirement or obligation established by this subpart including, but not limited to, any emission limitation (including any operating limit) or work practice standard;

(2) 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) Any emission limitation (including any operating limit) or work practice standard in this subpart during startup, shutdown, or malfunction, regardless whether or not such failure is permitted by this subpart.

Emission limitation means any emission limit, opacity limit, operating limit, or visible emission limit.

Fugitive dust material means copper concentrate, dross, reverts, slag, speiss, or other solid copper-bearing materials.

Fugitive dust source means a stationary source of particulate matter emissions resulting from the handling, storage, transfer, or other management of fugitive dust materials where the source is not associated with a specific process, process vent, or stack. Examples of a fugitive dust source include, but are not limited to, on-site roadways used by trucks transporting copper concentrate, unloading of materials from trucks or railcars, outdoor material storage piles, and transfer of material to hoppers and bins.

Holding means the operating mode for a batch copper converter during which the molten bath is maintained in the vessel but no blowing is performed nor is material added into or removed from the vessel.

Opacity means the degree to which emissions reduce the transmission of light.

Particulate matter means any finely divided solid or liquid material, other than uncombined water, as measured by the specific reference method.

Pouring means the operating mode for a batch copper converter during which molten copper is removed from the vessel.

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 in 40 CFR 70.2.

Skimming means the batch copper converter operating mode during which molten slag is removed from the vessel.

Slag cleaning vessel means a vessel that receives molten copper-bearing material and the predominant use of the vessel is to separate this material into molten copper matte and slag layers.

Smelting furnace 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 furnace.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the Clean Air Act.

As required in § 63.1457, you must comply with the requirements of the NESHAP General Provisions (40 CFR part 63, subpart A) shown in the following table:

TABLE 1 TO SUBPART QQQ OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART QQQ

Citation	Subject	Applies to subpart QQQ	Explanation
§ 63.1	Applicability	Yes.	
§ 63.2	Definitions	Yes.	
§ 63.3	Units and Abbreviations	Yes.	
§ 63.4	Prohibited Activities	Yes.	
§ 63.5	Construction and Reconstruction	Yes.	
§ 63.6(a)-(g)	Compliance with Standards and Maintenance requirements.	Yes.	
§ 63.6(h)	Determining compliance with Opacity and VE standards.	No	Subpart QQQ specifies the requirements and test protocol used to determine compliance with the opacity limits.
§ 63.6(i)-(j)	Extension of Compliance and Presidential Compliance Exemption.	Yes.	
§ 63.7(a)(1)-(2)	Applicability and Performance Test Dates.	No	Subpart QQQ specifies performance test applicability and dates.
§ 63.7(a)(3), (b)-(h)	Performance Testing Requirements	Yes.	
§ 63.8 except for (a)(4),(c)(4), and (f)(6).	Monitoring Requirements	Yes.	
§ 63.8(a)(4)	Additional Monitoring Requirements for Control devices in § 63.11.	No	Subpart QQ does not require flares.
§ 63.8(c)(4)	Continuous Monitoring System Requirements.	No	Subpart QQQ specifies requirements for operation of CMS.
§ 63.8(f)(6)	RATA Alternative	No	Subpart QQQ does not require continuous emission monitoring systems.
§ 63.9	Notification Requirements	Yes.	
§ 63.9(g)(5)	DATA reduction	No	Subpart QQQ specifies data reduction requirements
§ 63.10 except for (b)(2)(xiii) and (c)(7)-(8).	Recordkeeping and reporting Requirements.	Yes.	
§ 63.10(b)(2)(xiii)	CMS Records for RATA Alternative	No	Subpart QQQ does not require continuous emission monitoring systems.
§ 63.10(c)(7)-(8)	Records of Excess Emissions and Parameter Monitoring Accedences for CMS.	No	Subpart QQQ specifies record keeping requirements
§ 63.11	Control Device Requirements	No	Subpart QQQ does not require flares
§ 63.12	State Authority and Delegations	Yes.	
§§ 63.13–63.15	Addresses, Incorporation by Reference, Availability of Information.	Yes.	

FIGURE 1 TO SUBPART QQQ OF PART 63.—DATA SUMMARY SHEET FOR DETERMINATION OF AVERAGE OPACITY

Clock time	Number of converters blowing	Converter aisle activity	Average opacity for 1-minute interval (percent)	Visible emissions interference observed during 1-minute interval? (yes or no)	Average opacity for 1-minute interval blowing without visible emission interferences (percent)

FIGURE 1 TO SUBPART QQQ OF PART 63.—DATA SUMMARY SHEET FOR DETERMINATION OF AVERAGE OPACITY—Continued

Clock time	Number of converters blowing	Converter aisle activity	Average opacity for 1-minute interval (percent)	Visible emissions interference observed during 1-minute interval? (yes or no)	Average opacity for 1-minute interval blowing without visible emission interferences (percent)

[FR Doc. 02–12773 Filed 6–11–02; 8:45 am]
BILLING CODE 6560–50–P